



NOTTINGHAM CITY COUNCIL
HEALTH AND WELLBEING BOARD

Date: Wednesday 27 November 2019

Time: 1:30pm

Place: LB 31-32 - Loxley House, Station Street, Nottingham, NG2 3NG

Councillors are requested to attend the above meeting to transact the following business.

Corporate Director for Strategy and Resources

Governance Officer: Adrian Mann **Direct Dial:** 0115 8764468

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|----------|--|----------------------|
| 1 | CHANGES TO MEMBERSHIP | 3 - 4 |
| | <ul style="list-style-type: none">• Councillor Leslie Ayoola has stood down from the Board.• Sarah Fleming has replaced Andrea Brown as a representative of the Greater Nottingham Clinical Commissioning Partnership.• Vicki Dyer has replaced Tim Brown as the representative of the Department for Work and Pensions. | |
| 2 | APOLOGIES FOR ABSENCE | |
| 3 | DECLARATIONS OF INTERESTS | |
| 4 | MINUTES
Minutes of the meeting held on 25 September 2019, for confirmation | 5 - 14 |
| 5 | POPULATION HEALTH MANAGEMENT
Report of the Director of Public Health | 15 - 16 |
| 6 | ROUGH SLEEPING AND WINTER PREPAREDNESS
Report of the Director of Public Health | 17 - 22 |
| 7 | NOTTINGHAM AND NOTTINGHAMSHIRE AIR QUALITY STRATEGY 2019-2028
Report of the Director of Public Health | 23 - 88 |
| 8 | PRIMARY CARE NETWORKS UPDATE
Update from the Greater Nottingham Clinical Commissioning Partnership | Verbal Report |

9	INTEGRATED CARE PARTNERSHIP UPDATE Update from the Nottingham City Integrated Care Partnership	Verbal Report
10	THE MICHAEL VARNAM AWARDS 2019	Verbal Report
11	BOARD MEMBER UPDATES <ul style="list-style-type: none">• The Third Sector• Healthwatch Nottingham and Nottinghamshire• Greater Nottingham Clinical Commissioning Partnership• Nottingham City Council Corporate Director for People (Children and Adults)• Nottingham City Council Director for Public Health	89 - 90
12	FORWARD PLAN AND ACTION LOG	91 - 92
13	CITIZENS' QUESTIONS	

IF YOU NEED ANY ADVICE ON DECLARING AN INTEREST IN ANY ITEM ON THE AGENDA, PLEASE CONTACT THE GOVERNANCE OFFICER SHOWN ABOVE, IF POSSIBLE BEFORE THE DAY OF THE MEETING.

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Health and Wellbeing Board Membership

Voting Members	
Nottingham City Council Portfolio Holder with a remit covering Health	Councillor Eunice Campbell-Clark (Chair) Portfolio Holder for Health, HR and Equalities
Nottingham City Council Portfolio Holder with a remit covering Children's Services	Councillor Cheryl Barnard Portfolio Holder for Children and Young People
Two further City Councillors	Councillor Adele Williams Portfolio Holder for Adult Care and Local Transport
	<i>Vacant</i>
Accountable Officer, Greater Nottingham Clinical Commissioning Partnership	Sarah Fleming Head of Joint Commissioning
Three representatives from NHS Nottingham City Clinical Commissioning Group's Governing Body	Dr Hugh Porter (Vice Chair) GP and Governing Body Chair
	Dr Marcus Bicknell GP
	<i>Vacant</i>
Nottingham City Council Corporate Director for Children and Adults	Catherine Underwood Corporate Director for People (Children and Adults)
Nottingham City Council Director of Adult Social Care	<i>Vacant</i>
Nottingham City Council Director of Public Health	Alison Challenger Director of Public Health
Representative of Healthwatch Nottingham and Nottinghamshire Board	Sarah Collis Chair
Representative of NHS England	Samantha Travis Clinical Leadership Advisor and Controlled Drugs Accountable Officer
Non-Voting Members	
Representative of Nottingham University Hospitals NHS Trust	Alison Wynne Director of Strategy and Transformation
Representative of Nottinghamshire Healthcare NHS Foundation Trust	Julie Hankin Executive Medical Director
Representative of Nottingham CityCare Partnership	Lyn Bacon Chief Executive
Representative of Nottingham City Homes	Richard Holland Assistant Director of Housing Operations
Representative of Nottinghamshire Police	Superintendent Matthew Healey Area Command for the City
Representative of the Department for Work and Pensions	Viki Dyer District Operations Leader
Representative of Nottingham Universities	Andy Winter Director of Campus Life
Representative of Nottinghamshire Fire and Rescue Service	Craig Parkin Deputy Chief Fire Officer

Up to two individuals representing the interests of the Third Sector	Leslie McDonald Nottingham Counselling Centre
	Jane Todd Chief Executive, Nottingham CVS
Nottingham City Council Chief Executive	Ian Curryer Chief Executive

NOTTINGHAM CITY COUNCIL

HEALTH AND WELLBEING BOARD

MINUTES of the meeting held at Ground Floor Committee Room - Loxley House, Station Street, Nottingham, NG2 3NG on 25 September 2019 from 1.32 pm - 3.42 pm

Membership

Voting Members

Present

Councillor Eunice Campbell-Clark (Chair)
Dr Hugh Porter (Vice Chair)
Councillor Cheryl Barnard
Dr Marcus Bicknell
Alison Challenger
Alison Michalska
Councillor Adele Williams

Absent

Sarah Collis (sent substitute)

Ajanta Biswas (substitute for Sarah Collis)

Non-voting Members

Present

Tim Brown
Ian Curryer
Matthew Healey
Leslie McDonald
Andy Winter

Absent

Julie Hankin
Jane Todd (sent substitute)
Alison Wynne (sent substitute)

Tim Guyler (substitute for Alison Wynne)

Jules Sebelin (substitute for Jane Todd)

Colleagues, partners and others in attendance:

Shade Agboola	- Consultant Director of Public Health
Natalie Baker-Swift	- Programme Manager – Violence Reduction and Early Intervention
Lewis Etoria	- Head of Communications and Engagement, Nottingham and Nottinghamshire Integrated Care System
Annie Tasker	- Screening & Immunisation Manager, Public Health England
Zena West	- Governance Officer

31 CHANGE OF MEMBERSHIP

RESOLVED to note the following membership changes:

- **Andrea Brown stepping down, replacement to be confirmed (Nottingham and Nottinghamshire CCG)**
- **Hazel Johnson replaced by Julie Hankin (Nottinghamshire Healthcare Trust)**
- **Gill Moy replaced by Richard Holland (Nottingham City Homes)**

32 APOLOGIES FOR ABSENCE

Andrea Brown
Sarah Collis (sent substitute)
Helene Denness
Julie Hankin
Jane Todd (sent substitute)
Alison Wynne (sent substitute)

33 DECLARATIONS OF INTERESTS

None.

34 MINUTES

The minutes were agreed as a correct record and signed by the Chair.

35 SEASONAL FLU PLANNING DISCUSSION

Dr Shade Agboola, Public Health Consultant Nottingham City Council, and Annie Tasker, Screening & Immunisation Manager NHS England, presented information on plans and initiatives to optimise uptake for flu vaccine, as per the slides published with the agenda. A number of points were also raised in discussion:

- (a) this year the plan is to get the message out early, work is underway to challenge misconceptions about the side effects of the vaccine and reframing them as evidence that the vaccine is working;
- (b) vaccines received in pharmacies are commissioned by NHS England and are managed by the Pharmacy Team. The Pharmacy Team are part of the membership of the Derbyshire & Nottinghamshire Seasonal Flu Planning Group and they work with the Seasonal Immunisation Team (SIT) to ensure that vaccines given by pharmacies are notified to GPs. Pharmacies are required to notify the GP of any vaccine given to an individual. Many practices have signed up to Pharm Outcomes, and this data is matched up and reviewed through practices. Every effort is made to ensure vaccines delivered in pharmacies are accounted for;
- (c) questions were raised about perceived vaccine shortage in some areas last year which only affected Nottingham, when the slight fall in uptake of the vaccine was seen nationwide, so it is not felt that perceived vaccine shortages had a significant impact on the fall in uptake in Nottingham as practices and stakeholders worked collaboratively to minimise the impact of this;
- (d) there may be some minor delays with the under 65s vaccine this year, due to the late identification of one of the Flu strains to be included in the vaccine which has resulted in minor manufacturing delays. There is no reason to believe there is insufficient supply overall. Planning involves consulting with local practices and ensuring they have all ordered enough of each type of vaccine, and have ordered from more than one supplier. Assurance is also

sought from manufacturers, who have assured NHS England that they have contingency plans in place, including the use of alternative ports in the case of a no-deal exit from the EU;

- (e) uptake in schools is a particular challenge. The same tactics are used throughout the county, but uptake in city schools is lower, possibly due to higher levels of deprivation and different community makeup. An e-consent by text message scheme is being rolled out in Nottinghamshire and Derbyshire this year, which should help to overcome the biggest challenge of consent forms not being returned. Opt out consent raised as an option but this is not possible;
- (f) stakeholders are encouraged to promote Flu vaccines within their organisations with the main focus being on the eligible cohorts for free vaccines, and people who are front line Health and Social Care workers. Occupational Health vaccination responsibilities were explored - where employers may wish to promote Flu Vaccination and maintain a resilient workforce for those staff not currently eligible under the current eligibility criteria and everyone should be encouraged to get vaccinated even if they don't qualify for a free vaccine;
- (g) NHS England will be cascading resources on the benefits of the vaccine shortly;
- (h) several Board members offered assistance in getting the message out on the importance of flu vaccination to their own organisations, and Councillors requested leaflets to have at their stalls at upcoming Older Persons events;
- (i) those with ill health who qualify for the vaccine (such as those with respiratory issues, renal issues or immune system issues) will be able to receive the vaccine in alternative health settings whilst receiving other treatments, and pregnant women will be offered the vaccine whilst receiving ante-natal care;
- (j) residents of care homes are a particularly challenging cohort which need targeting for the free vaccine, as they are particularly vulnerable to ill-health. The message needs to get through to care homes to be proactive and prioritise vaccinations early on in the flu season for all residents;
- (k) eligibility for the free vaccine for Health and Social Care workers has cause some confusion with the SIT receiving enquiries about the definition of a Health and Social Care Worker. At the moment, Health and Social Care workers should be vaccinated by their own GP or via Occupational Health schemes not in the healthcare setting in which they work, so for example if someone works at a GP surgery but is registered elsewhere they would have to receive the vaccine at their registered surgery. Acute Trusts are an exception to this as they offer this vaccination to Hospital Based Staff. Discussions are ongoing as to how to make this more efficient going forward;
- (l) health staff attendance at flu vaccine training has decreased year on year, and as a result some staff not as aware of the range of options available. Work is ongoing to improve knowledge.

- (m) the Chair concluded that there is still a lot to do, particularly with the 4-10 cohort, working more closely with the schools to re-in force the importance of vaccines. All partners need to work together, and be very firm with the message of the benefits of vaccination and myth-busting. The e-consent text message system for schools seems a very positive step, and a good use of technology to adapt to the way modern families communicate. If anyone has anything further to add, they can feed back directly to Dr Shade Agboola or to Annie Tasker.

RESOLVED to:

- (1) thanks Dr Shade Agboola and Annie Tasker for the information and note the presentation;**
- (2) work together to promote the benefits and expel the myths of the flu vaccine;**
- (3) receive an update on flu vaccine planning in 12 months' time.**

36 VIOLENCE REDUCTION UNIT

Natalie Baker-Swift, Programme Manager – Violence Reduction and Early Intervention, gave a presentation on the new Violence Reduction Unit. Any comments or feedback, which can be fed in to the new unit, are welcome. There is a strong emphasis on early intervention to tackle the root causes of violence. The unit is funded through to March 2020, and aims to build a long-term sustainable approach and develop a legacy. Funding has been set aside for Violence Reduction Units after March 2020, but it is not yet clear how much each Unit will receive. There are 18 in the UK. The Unit takes a multi-agency approach, and wishes to build on the success of the Knife Crime Strategy.

RESOLVED to thank Natalie Baker-Swift for the presentation, and note the contents.

37 ICP UPDATE

Ian Curryer, Chief Executive at Nottingham City Council, and Dr Hugh Porter NHS Nottingham City Clinical Commissioning Group, gave a presentation to the Board, distributed with the first publication of the minutes. The following points were raised:

- (a) the crux of the partnership is to work differently to find savings. By taking a holistic and preventative view and working together to reduce duplication, the budgetary situation can be turned around;
- (b) there is now an ICP focussing on the City boundaries, which has been fought hard for. Nottingham City is the 4th most deprived place to bring out children and (depending on which information is used) either the 8th or 12th most deprived place for adults, and does not align with the demographic of the rest of the County. The City faces different challenges than the suburbs;

- (c) the ICP is made up of Primary Care Networks (PCNs), which are healthcare “neighbourhoods” supporting between 30,000 and 60,000 patients. Nottingham’s PCNs are coterminous with some other geographical boundaries, such as those of Area Committees, but there is also a non-geographical University specific PCN to address the particular health needs of Nottingham’s student population;
- (d) Efforts need to be coordinated across the whole ICP, bringing partners together to think about how services can be delivered differently, and how the early intervention agenda can be incorporated into the Partnership. The key people who deliver change are those working on the ground, so a planned day-long workforce launch drop in event on 7 November will be crucial for getting the message of the ICP out to all participating colleagues. Funding has been received from the ICS to appoint a Programme Lead, funded for a year, with no financial drain on any of the partners. They bring national experience and expertise, and it is hoped the post can be extended past the first year;
- (e) one emerging joint priority is of positive mental health in schools;
- (f) there is an expectation that PCNs will be an integral part of the ICP priorities going forward and that all partners will be represented. The aim is to strengthen working relationships, build trust at all levels, agree priorities and engage the workforce;
- (g) the NHS Long Term Plan filters down to the ICS, who have to have a response to the Plan. It is important to remember that whilst the ICP will focus on local priorities, the Long Term Plan is national, so priorities may not always align;
- (h) the Health and Wellbeing Strategy is being renewed, and it is important for the Health and Wellbeing Board to work closely with the ICP, and consider how they can add value to the ICP and vice versa. When the terms of reference for Health and Wellbeing Board are next refreshed, the implications of working with and supporting the ICP should be properly considered;
- (i) the Chair concluded that the key message is of joined up partnership working, and that the ICP should continue to update the Health and Wellbeing Board on its work.

RESOLVED to:

- (1) thank Ian Curryer and Dr Hugh Porter for the update and note the contents;**
- (2) invite a brief written update on the ICP to all future meetings of the Health and Wellbeing Board.**

38 IMPLICATIONS OF THE NHS LONG TERM PLAN

Lewis Etoria, Head of Communications and Engagement for NHS Nottingham City Clinical Commissioning Group, gave a presentation on the local implications and consultation programme surrounding the NHS Long Term Plan. Updated slides were distributed with the first publication of the minutes. Further comments were provided by Ajanta Biswas from Healthwatch, who carried out a lot of the engagement work:

- (a) a large amount of digital engagement took place, alongside face to face engagement from Healthwatch. Over 600 out of 1,000 responses were from community outreach face-to-face engagement. The engagement aimed to ascertain whether local people support the themes and aims of the Long Term Plan;
- (b) further conversations and engagement are required around digital innovation in healthcare. Those not comfortable with increased use of technology may need further help;
- (c) there is a huge amount of support for frontline staff and compassionate for the perceived stress and pressure they work with;
- (d) many citizens would rather be offered the best option, trusting the clinical expertise of professionals, rather than be offered choice in their healthcare. Often patients may feel overwhelmed if offered choice, especially after a diagnosis of a serious illness. Health literacy and communication is very important;
- (e) it is important to listen to this engagement, both as a Board and as a health system. The NHS is good at innovation and ideas, but change can feel uncomfortable;
- (f) some Board members felt that engagement with the BME community was lacking, and that as they were under-represented in this initial consultation, the health needs of the BME community may not be adequately addressed. The consultation was not as representative as desired, and further thematic engagement would be targeted to make sure all demographics and communities are reached at an appropriate balance;
- (g) the biggest challenge will be the disconnect with the perception of technology. One ambition of the Long Term Plan is that within five years, there will be 30% fewer face-to-face outpatient consultations, which inevitably means some will be held digitally. When engagement shows people are uncomfortable with this kind of provision, but that is the national target, it is difficult to find a balance. It is important to help and support people through such changes, and not be perceived to be ignoring the outcome of consultations.

RESOLVED to thank Lewis Etoria and Ajanta Biswas for their presentation, and note the contents.

39 HEALTH AND WELLBEING BOARD COMMISSIONING SUB COMMITTEE TERMS OF REFERENCE

RESOLVED to:

- (1) add the Nottingham City Council Portfolio Holder with a remit covering adult social care as a voting member of the Health and Wellbeing Board Commissioning Sub Committee;**
- (2) amend the Health and Wellbeing Board Commissioning Sub Committee Terms of Reference accordingly.**

40 JSNA ANNUAL REPORT

RESOLVED to note the Joint Strategic Needs Assessment Annual Report.

41 NOTTINGHAM CITY AND NOTTINGHAMSHIRE SUICIDE PREVENTION STRATEGY 2019-2023

The Board wished to note that the Plan is an excellent and detailed piece of work, and to thank colleagues involved in its creation.

RESOLVED to note the Nottingham City and Nottinghamshire Suicide Prevention Strategy 2019-2023.

42 BOARD MEMBER UPDATES

The following Board member updates were noted:

Third sector

A recent meeting of childhood sexual abuse survivors wished to know when the City Council would respond to recommendations. An action plan would be signed off by partners at the end of September, and taken to a meeting of Executive Board on 15 October.

Health and Social Care are due to co-present at the next Provider Network meeting, which shows positive integrated working at an ICP level.

Healthwatch Nottingham and Nottinghamshire

None.

NHS Greater Nottingham Clinical Commissioning Partnership

The recently discussed proposed merger CCP - discussed proposed merger of CCGs is still progressing.

Wendy Xavier, Managing Director of the ICS, is stepping down. Dr Andy Haynes (currently the Medical Director) is stepping up to be Managing Director, so the ICS

will now be clinically led. The CCP extended their thanks to Wendy for her work in the role.

Nottingham City Council Corporate Director for Children and Adults and Director of Social Services

As distributed with the agenda.

Alison Michalska, who is retiring from her role as Corporate Director for Children and Adults shortly, extended her thanks to the Board, and the Board thanked Alison for her contributions as well.

Provisional GCSE results show a great success for Nottingham City Council's children in care, with a 20% increase in children in care receiving five or more good GCSEs.

Nottingham City Council Director of Public Health

As circulated with the agenda.

Age Friendly Nottingham have asked that all partner organisations sign the Older Persons pledge (https://docs.google.com/forms/d/e/1FAIpQLSfG8kK7H78NVRJLke1L_PvNfuU9L6nkRRVXyWKtNkjGfhfapq/viewform), and mark the United Nations International Older Persons Day (<https://www.un.org/en/events/olderpersonsday/>) in an appropriate way for their organisation.

43 FORWARD PLAN

RESOLVED to:

- (1) include an item updating the Board on what has changed in response to the IICSA Action Plan on the forward plan for the March 2020 meeting;**
- (2) note the forward plan, as amended.**

44 ACTION LOG

The Chair asked that all members review the action log and ensure they were aware of outstanding actions.

45 JSNA CHAPTER - SMD

The Board wished to thank Grant Everitt and Karan Kaur for their hard work in writing the new chapter.

RESOLVED to note the new Joint Strategic Needs Assessment Chapters Severe Multiple Disadvantage.

46 QUESTIONS FROM CITIZENS

There were no questions from citizens, however a representative from the Alzheimer's Society made the following contributions:

- (a) the item of flu vaccination was very informative, and will be fed back to the Alzheimer's Society to see if there's anything they can do to further encourage take up of the vaccine;
- (b) the Alzheimer's Society has recently produced some guidance on the NHS Long Term Plan from a dementia perspective. Their commitment to the NHS Long Term Plan ties in with the Fix Dementia Care campaign.

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HEALTH AND WELLBEING BOARD

27 November 2019

	Report for Information
Title:	An Introduction to Population Health Management
Lead Board Member(s):	Alison Challenger
Author and contact details for further information:	Maria Principe
Brief summary:	An introduction to Population Health Management, sharing with the Board: The PHM Methodology (giving some real-time data) Challenges in Delivery Next Steps

Recommendation to the Health and Wellbeing Board:

The Health and Wellbeing Board is asked to:

Note the information contained and discuss how Population Health Management can be adopted with the Council as part of a system-wide framework.

Contribution to Joint Health and Wellbeing Strategy:

Health and Wellbeing Strategy aims and outcomes	Summary of contribution to the Strategy
Aim: To increase healthy life expectancy in Nottingham and make us one of the healthiest big cities	Population Health Management is the approach by which data is used to understand the needs of the population, enabling focus and resources to be tailored to areas where the impact can have maximum impact.
Aim: To reduce inequalities in health by targeting the neighbourhoods with the lowest levels of healthy life expectancy	
Outcome 1: Children and adults in Nottingham adopt and maintain healthy lifestyles	
Outcome 2: Children and adults in Nottingham will have positive mental wellbeing and those with long-term mental health problems will have good physical health	
Outcome 3: There will be a healthy culture in Nottingham in which citizens are supported and empowered to live healthy lives and manage ill health well	
Outcome 4: Nottingham's environment will be sustainable – supporting and enabling its citizens to have good health and wellbeing	

How mental health and wellbeing is being championed in line with the Board's aspiration to give equal value to mental and physical health

Population Health Management will support the delivery of the systems priorities by identifying the population at risk and developing interventions that bridges the inequity gaps in quality and finance. Mental Health will be a key characteristic.

Background papers:

Documents which disclose important facts or matters on which the decision has been based and have been relied on to a material extent in preparing the decision. This does not include any published works e.g. previous Board reports or any exempt documents.

ICS Five-Year Long Term Plan
NHSe Population Health Management Flatpack

HEALTH AND WELLBEING BOARD

27 November 2019

	Report for Information
Title:	Rough Sleeping and Winter Preparedness
Lead Board Member(s):	Alison Challenger, Director of Public Health
Author and contact details for further information:	Racheal Harding, Homelessness Strategy Manager 0115 8764468, rachael.harding@nottinghamcity.gov.uk
Brief summary:	Statistically, the number of rough sleepers found during the monthly snapshot count on an average night has decreased over the past few months, following an all-time high of 55 in August 2019. The November 2019 count figure (30) is also lower than that recorded in November 2018 (34), November 2017 (43) and November 2016 (35). The successful award of government rough sleeper funding enabled us to continue delivery of many of the usual 'winter only' measures throughout 2019/20. Whilst this has been a positive addition to year-round provision, it has also meant that we have had to develop new plans for winter 2019/20 to ensure that we can adequately respond to ongoing need and the additional demand that we anticipate seeing.

Recommendation to the Health and Wellbeing Board:

The Health and Wellbeing Board is asked to:

- a) recognise the roles and responsibilities of their organisations to address the support needs of citizens and help to prevent homelessness from happening in the first place.

Contribution to Joint Health and Wellbeing Strategy:

Health and Wellbeing Strategy aims and outcomes	Summary of contribution to the Strategy
Aim: To increase healthy life expectancy in Nottingham and make us one of the healthiest big cities	As highlighted throughout the cities Homelessness Prevention Strategy, homelessness is far from simply a housing issue. The loss of accommodation is one of the symptoms or consequences of another support need that is not being met. Many rough sleepers refuse housing options and those that will accept shelter are at risk of quickly losing it if the additional support needs that caused the risk of homelessness in the first place, are not addressed. These support needs frequently and simultaneously include mental health conditions, dealing
Aim: To reduce inequalities in health by targeting the neighbourhoods with the lowest levels of healthy life expectancy	
Outcome 1: Children and adults in Nottingham adopt and maintain healthy lifestyles	
Outcome 2: Children and adults in Nottingham will have positive mental wellbeing and those with long-term mental health problems will have good physical	

health	with the impact of trauma, substance misuse, physical health diseases, conditions, illnesses and injuries and offending behaviours. Prevention of rough sleeping requires a system-wide, cross sector approach with commitment to adequate investment and flexible delivery of services that support people with multiple and complex needs.
Outcome 3: There will be a healthy culture in Nottingham in which citizens are supported and empowered to live healthy lives and manage ill health well	
Outcome 4: Nottingham's environment will be sustainable – supporting and enabling its citizens to have good health and wellbeing	

How mental health and wellbeing is being championed in line with the Board's aspiration to give equal value to mental and physical health
The Greater Nottingham Clinical Commissioning Partnership has been working closely with the strategic homelessness group to further understand what is required from the health sector to appropriately address the needs of people with multiple and complex needs to help prevent them from reaching homelessness, ensure that services are available and accessible to respond to people who are rough sleeping or with multiple and complex needs and temporarily housed in homeless accommodation, review the requirement for community beds following hospital discharge of people with multiple and complex needs at risk of rough sleeping, and access health-focussed government funding for rough sleepers

Background papers:	None
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Rough Sleeping and winter preparedness

Report for Nottingham City Health and Wellbeing Board

November 2019

1. Current context

- 1.1 Statistically, the number of rough sleepers found during the monthly snapshot count on an average night has decreased over the past few months, following an all-time high of 55 in August 2019. The November 2019 count figure (30) is also lower than that recorded in November 2018 (34), November 2017 (43) and November 2016 (35).
- 1.2 This positive reduction is a result of the system of additional services and approaches that Nottingham City Council and partners have developed and introduced following successful bids for additional government funding from 2018.
- 1.3 In 2019/20, Nottingham City Council was successful in obtaining £1.2m in MHCLG government grants to introduce additional provision for rough sleepers and deliver our strategic approach of prevention, identification, engagement, assessment, support, shelter and sustained housing.
- 1.4 The enhanced provision includes a year round night shelter and sit-up service, complex needs hostel, move on accommodation, housing first properties, and staffing including a coordinator, resettlement workers, private rented sector lettings workers, community navigators and tenancy support workers. Funding has also been secured for specialist navigators working across the city and county and focussing on entrenched rough sleepers who are at risk of returning to street homelessness following discharge from acute and mental health hospitals and release from prison.
- 1.5 However, the reason the reduction is not more pronounced is because there are actually more rough sleepers reaching the streets than ever before. The number of different individuals seen rough sleeping in Nottingham so far in 2019 has increased by 16% when compared to the same timeframe last year.
- 1.6 The contrasting reduction in monthly counts alongside an increase in individuals found rough sleeping suggests that our ability to identify and respond to rough sleepers with accommodation and housing related support has been enhanced by the additional funding. However, there are clearly still pressures remaining that cause people to become street homeless.

2. Cold weather plan

- 2.1 The successful award of government rough sleeper funding enabled us to continue delivery of many of the usual 'winter only' measures throughout 2019/20. Whilst this has been a positive addition to year-round provision, it has also meant that we have had to develop new plans for

winter 2019/20 to ensure that we can adequately respond to ongoing need and the additional demand that we anticipate seeing.

- 2.2 This year's plan is also set in the context of a reduced ability to rely on B&B hotels as emergency shelter for rough sleepers. Any available funding for rough sleepers B&B use ended in August 2019 and MHCLG are clear that they do not support this as an ongoing option. Whilst this limits emergency availability of shelter, it is not entirely negative. Learning from last year taught us that an offer of B&B led to manipulation of the system (people holding out until later in the day/evening for a place in B&B rather than accepting an alternative offer of shelter) as well as importing need as people learned about the generous offer available in Nottingham.
- 2.3 In late September 2019, MHCLG opened the Cold Weather Fund for local authorities to bid for resources to enhance provision of shelter and services to rough sleepers during the winter months. Nottingham City Council has been successfully awarded £90k to introduce emergency and short-term additional bedspaces in new and existing projects, evening outreach workers and a move on coordinator to address blockages to throughput. The funding will also pilot a limited number of nights in community nursing beds for rough sleepers who require further rehabilitation, care or support following discharge from hospital.
- 2.4 Additionally this winter, the voluntary sit-up service delivered through a partnership between Nottinghamshire Fire and Rescue and British Red Cross will be expanded to two sites to provide emergency shelter for low need rough sleepers when the Severe Weather Emergency Protocol (SWEP) is activated. Discussions are also progressing with the Arches project to deliver a third sit-up service when the temperatures reach freezing.
- 2.5 The Nottingham Cold Weather Plan will be agreed at the Homelessness Strategy Implementation Group meeting on 26th November 2019.

3. Addressing the issues

- 3.1 There are two main housing challenges that remain:
 - Adequate emergency shelter for rough sleepers who have multiple and complex needs that are assessed as too high to be addressed solely through housing related support
 - Move on options for rough sleepers with multiple and complex needs who need specialist long term supported accommodation placements.
- 3.2 Neither of these two housing solutions can be facilitated or delivered without strategic, financial and operational input from the health, social care and criminal justice sectors.
- 3.3 As highlighted throughout the cities Homelessness Prevention Strategy, homelessness is far from simply a housing issue. The loss of accommodation is one of the symptoms or consequences of another support need that is not being met. Many rough sleepers refuse housing options and those that will accept shelter are at risk of quickly losing it if the additional support needs that caused the risk of homelessness in the first place, are not addressed. These support needs frequently and simultaneously include mental health conditions, dealing with the impact of trauma, substance misuse, physical health diseases, conditions, illnesses and injuries and offending behaviours.

- 3.4 Prevention of rough sleeping requires a system-wide, cross sector approach with commitment to adequate investment and flexible delivery of services that support people with multiple and complex needs.
- 3.5 Over the past 12 months, Naomi Robinson from the Greater Nottingham Clinical Commissioning Partnership has been working closely with the strategic homelessness group to further understand what is required from the health sector to:
- Appropriately address the needs of people with multiple and complex needs to help prevent them from reaching homelessness
 - Ensure that services are available and accessible to respond to people who are rough sleeping or with multiple and complex needs and temporarily housed in homeless accommodation
 - Review the requirement for community beds following hospital discharge of people with multiple and complex needs at risk of rough sleeping
 - Access health focused government funding for rough sleepers
- 3.6 A report containing recommendations for future commissioning is being considered within the CCP and is supporting the development of homelessness as an area of programme focus within the Integrated Care Partnership.

4. How can partners help?

- Recognise the roles and responsibilities of their organisations to adequately address support needs and help to prevent homelessness from happening in the first place
- Consider how to respond to the mental health, dual diagnosis and substance misuse support needs of rough sleepers who are street homeless or accommodated in emergency shelters
- Recognise the barriers there are for people with multiple and complex needs and adapt services to flexibly meet individual needs (e.g. through multi-disciplinary work, outreach, colocation, co-commissioning of services etc.) until they can be supported into mainstream services
- Ensure systems are in place and followed to proactively identify the risk of homelessness and enable access to pathways into support
- Specified public bodies to comply with the Duty to Refer and provide as much relevant information as possible to assist in the assessment of need
- Commitment to not discharging patients from hospital or mental health beds until a suitable accommodation option is secured
- Promote volunteering opportunities (at sit-up service, shelter etc.) and share communications about services that are available to provide support and alternative giving
- Highlight emergency shelter options that could be available for use for high risk rough sleepers

Rachael Harding
Homelessness Strategy Manager
Nottingham City Council

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HEALTH AND WELLBEING BOARD**27 November 2019**

	Report for Resolution
Title:	Nottingham and Nottinghamshire Air Quality Strategy
Lead Board Member(s):	Councillor Eunice Campbell-Clark
Author and contact details for further information:	Richard Taylor (Environmental Health and Safer Places Manager, NCC), 0115 8761458, richard.taylor@nottinghamcity.gov.uk
Brief summary:	<p>Air pollution is still the largest environmental risk to public health in the UK. It shortens lives and reduces quality of life, particularly amongst the most vulnerable, the young and old, and those living with health conditions. There are 1000s of cases of respiratory and other diseases and an estimated 630 deaths a year in the Nottingham City and Nottinghamshire County areas together that can be attributed to air pollutants.</p> <p>We aim to improve air quality further in Nottinghamshire through this strategy as there are no safe levels of air pollution and any reduction will have a positive impact on public health. In fact, our modelling shows that reducing levels of exposure to the main pollutants in the county and city would in time generate significant reductions in related morbidity and mortality and reduction in costs to the local health and care system. Importantly this would also improve the quality of life and wellbeing of 1000s of local people helping them to meet their potential and live fulfilling lives. Reducing air pollution will also contribute to protecting the climate as polluting emissions also often contain greenhouse gases. There are also other significant co-benefits such as health improvement through more active travel economic opportunities related to the development and utilisation of zero and low emission technologies.</p> <p>Our vision is for all of Nottinghamshire residents and visitors to have clean air that allows them to lead healthy and fulfilling lives. We aim to reduce the average levels of the main pollutants and reduce the proportion of disease and death caused by air pollution. In order to do this it is crucial that we all contribute to tackling air pollution, and local authorities, and partner organisations provide strong leadership so that we improve the quality of the air we all breathe, every minute of every day and establish systems and places for clean air for future generations.</p>

Recommendation to the Health and Wellbeing Board:

The Health and Wellbeing Board is asked to:

- a) Note that the Board's 2015 request for the 2008 Air Quality Strategy to be revised, updated and reformatted is complete;
- b) Accepts the revised, updated and e-format Strategy, and its periodic review;
- c) Ensure the Nottingham and Nottinghamshire Air Quality Strategy 2019 is promulgated, adopted and implemented by their organisations, and that a representative of their organisation attends the periodic Air Quality Improvement group hosted by Nottingham City Council.

Contribution to Joint Health and Wellbeing Strategy:

Health and Wellbeing Strategy aims and outcomes	Summary of contribution to the Strategy
Aim: To increase healthy life expectancy in Nottingham and make us one of the healthiest big cities	The Revised Nottingham and Nottinghamshire Air Quality Strategy provides information to citizens, businesses and Board partners on how to reduce emissions, reduce exposure and improve air quality and citizen health. The holistic strategy details solutions that address both aims and all four outcomes.
Aim: To reduce inequalities in health by targeting the neighbourhoods with the lowest levels of healthy life expectancy	
Outcome 1: Children and adults in Nottingham adopt and maintain healthy lifestyles	
Outcome 2: Children and adults in Nottingham will have positive mental wellbeing and those with long-term mental health problems will have good physical health	
Outcome 3: There will be a healthy culture in Nottingham in which citizens are supported and empowered to live healthy lives and manage ill health well	
Outcome 4: Nottingham's environment will be sustainable – supporting and enabling its citizens to have good health and wellbeing	

How mental health and wellbeing is being championed in line with the Board's aspiration to give equal value to mental and physical health

Recognising air pollution is a significant problem and addressing people's concerns and showing how we are working to reduce pollution and protect health reduces potential stress and anxiety amongst citizens.

Background papers: The link to the 'beta' webpage is

<http://gedlingbc.maps.arcgis.com/apps/MapSeries/index.html?appid=0e99af19de3442408d0fbd16a2bc9953>.

Local Air Quality Management Annual Status Report 2019:

<https://www.nottinghaminsight.org.uk/Document-Library/Document-Library/aAXJ0MT>

JSNA Air Quality and Health 2019:

<https://www.nottinghaminsight.org.uk/themes/health-and-wellbeing/joint-strategic-needs-assessment/behavioural-factors-and-wider-determinants-of-health/air-quality-2019/>

Nottinghamshire Air Quality Strategy 2008 (attached)

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Nottinghamshire
Air Quality Strategy
2019-2028

Contents

1. Foreword - Why do we need an Air Quality Strategy to reduce air pollution?	3
2. Vision, aims, objectives and principles	4
2.1. Our Vision	4
2.2. Aims	5
2.3. Strategic Objectives	6
2.4. Strategic Objective 1. Place making and Development for Good Air Quality	6
2.5. Strategic Objective 2. Enable the Shift to Zero and Low Emission Transport & Reduce Emissions	7
2.6. Strategic Objective 3. Reduce, Minimise and Prevent Emissions from Industrial, Commercial, Agricultural and Domestic Sources and activity	8
2.7. Strategic Objective 4 – Engagement and Communication for Behaviour Change	8
2.8. Cross cutting principles of the Strategy	9
3. Delivery and Governance	12
Appendix 1 Local Air Pollution?	14
Appendix 2 Modelled trend in Years of Life lost and Years lived I disability	20
Appendix 3 Modelled reductions in morbidity, mortality and health and care costs from reducing pollution	21
Appendix 4 Most deprived electoral wards in Nottingham and Nottingham with estimated higher levels of pollution	23
Appendix 5 Local Air Quality Management Process	24
Appendix 6 How to get involved	25
4. References	27

1. Foreword - Why do we need an Air Quality Strategy to reduce air pollution?

Clean air is one of the most basic requirements for us all to live and work, and is essential for our good health and wellbeing, and for the natural environment. Although there has been a reduction in air pollution since the 1970s, poor air quality is still the largest environmental risk to public health in the UK. It shortens lives and reduces quality of life, particularly amongst the most vulnerable, the young and old, and those living with health conditions. There are 1000s of cases of respiratory and other diseases and an estimated 630 deaths a year in the Nottingham City and Nottinghamshire County areas together that can be attributed to air pollutants. It is also important to recognise that air pollution also damages ecosystems and wildlife.

We aim to improve air quality further in Nottinghamshire through this strategy as there are no safe levels of air pollution and any reduction will have a positive impact on public health. In fact, our modelling shows that reducing levels of exposure to the main pollutants in the county and city would in time generate significant reductions in related morbidity and mortality and reduction in costs to the local health and care system. Importantly this would also improve the quality of life and wellbeing of 1000s of local people helping them to meet their potential and live fulfilling lives. Reducing air pollution will also contribute to protecting the climate as polluting emissions also often contain greenhouse gases. There are also other significant co-benefits such as health improvement through more active travel economic opportunities related to the development and utilisation of zero and low emission technologies.

Our vision is for all of Nottinghamshire residents and visitors to have clean air that allows them to lead healthy and fulfilling lives. We aim to reduce the average levels of the main pollutants and reduce the proportion of disease and death caused by air pollution. To order to do this it is crucial that we all contribute to tackling air pollution, and local authorities, and partner organisations provide strong leadership so that we improve the quality of the air we all breathe, every minute of every day and establish systems and places for clean air for future generations.

2. Vision, aims, objectives and principles

2.1. Our Vision

For all of Nottinghamshire residents and visitors to have clean air that allows them to lead healthy and fulfilling lives.

Modelling shows that the rate of years of life lost attributable to air pollution has decreased in the county and the city since the early 1990s, but the rate of years lost to disability attributable to air pollution remains at a similar level (appendix 2). However, there is no known safe level of exposure below which there is no risk of health effects (1), and air pollution continues to have a significant impact on health in the city and county.

It is estimated that 5.7% of all adult deaths (equivalent to more than 410 deaths) in Nottinghamshire County (i.e. excluding the City of Nottingham), and 6.3% (2) of all adult deaths (equivalent to 146 deaths) in Nottingham City, were attributable to long term exposure to human-made particulate air pollution based on 2016 figures. When the effects of NO₂ are included the number of attributable deaths is estimated to increase to more than 450 in Nottinghamshire County and 181 in Nottingham City. Deaths attributable to air pollution are higher than those related to alcohol consumption and road traffic accidents combined (table 1). This demonstrates the need and importance of working towards our strategic vision.

Table 1 Comparison of deaths attributable to human-made air pollution, smoking and deaths related to alcohol consumption, Nottinghamshire County and Nottingham City.

Area	Deaths attributable to human-made air pollution	Deaths attributable to smoking	Deaths related to alcohol consumption	Deaths (deaths including serious injury) caused by road traffic accidents
Nottinghamshire County	450	3928*	405‡	28 ^α (314)
Nottingham City	183	1408	153‡	5 ^α (111)

* Estimate based on 1/3 of deaths attributable for 2015-2017, PHE Tobacco Control Profiles, <http://www.tobaccoprofiles.info/profile/tobacco-control>

‡ Estimates for 2017, PHE Local Alcohol Profiles for England, 4.01 Alcohol-related mortality (persons) <http://fingertips.phe.org.uk/profile/local-alcohol-profile>

α Reported casualties by severity, by local authority area, Great Britain, 2017 <https://www.gov.uk/government/statistical-data-sets/ras30-reported-casualties-in-road-accidents#table-ras30008>

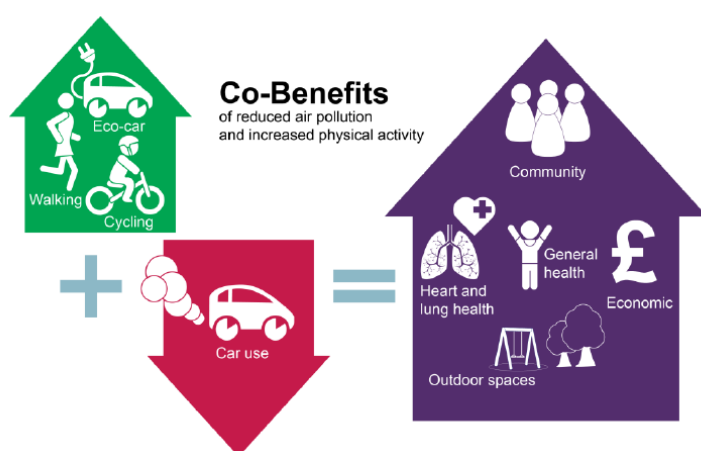
Our modelling shows that lowering levels of pollution would enable people to live more healthy lives. For example, if areas of the city and county where residents are exposed to higher levels of air pollution, had lower levels of pollution over the next 10 years; there would be significant health benefits and lives saved. This would include 1000s of fewer cases of asthma, coronary heart disease, chronic obstructive pulmonary disease, diabetes, and lung cancer over the next 10 years and related improvements in quality of life. In addition, there would be over 1500 fewer deaths associated with these conditions, and a reduction in £160M associated with treating and caring for people with these conditions in the local health and care system (appendix 3).

Our vision for clean air aligns with the ambition in governments national Clean Air Strategy to protect the nation's health and the government's plan (3) and forthcoming strategy for reducing vehicle emissions (4). Other important national plans such as the NHS Long Term Plan has recognised the action needed on air quality (5).

Implementation of this strategy will also have local system-wide co-benefits (figure 1). For example, shifting towards local and zero emission transport will enable more physical activity through active travel as part of integrated transport systems and help reduce local congestion. Other co-benefits include connecting people in their communities through better design of place, and improvements in overall environmental quality, noise reduction, greater road safety and carbon-reduction for climate change mitigation (1).

The local economy can also benefit from the action set out in this strategy. People prefer to live, and employers are likely to prefer to establish businesses, in places which are clean and support a healthy workforce. Innovation in clean energy and technologies presents opportunities for the UK economy (6).

Figure 1 Example Co-Benefits of Improving Air Quality (Public Health England)



2.2. Aims

This strategy aims to reduce the two key pollutants that are known to impact on human health – nitrogen dioxide and particulate matter. This action will also reduce the impact of these pollutants on the local environment and local ecosystems and reduce the impact of other pollutants which are emitted and produced by the same causes.

- **AIM 1: To reduce average concentrations of nitrogen dioxide and particulate matter in Nottinghamshire (which will ultimately lead to a reduction in air quality management areas in Nottinghamshire).**
- **AIM 2: To reduce the estimated proportion of disease and deaths attributable to air pollution (encompassing particles, nitrogen dioxide and other air pollutants).**

Aim 1 is in line with the 2018 legislation to reduce national emissions for particulate matter and nitrogen dioxide (and 3 other pollutants) (7). It is also aligned with the national Clean Air Strategy 2019 aim to reduce PM_{2.5} concentrations in all areas of the UK over the next decade (4).

As described in appendix 5, air quality management areas (AQMA) are designated when levels of pollutants in local area are above the UK limits. Reducing the average concentrations of these key pollutants will subsequently lead to less areas requiring an AQMA and reduce the number of AQMA in the city and county area. The Local Air Quality Action Plans for these AQMA in Nottingham and Nottinghamshire are therefore a key component in the delivery of

this strategy in terms of reducing health risk and impact in the most polluted areas. The role of AQMA will evolve and develop as the government makes changes to modernise the local air quality management (LAQM) system as intended in the Clean Air Strategy.

2.3. Strategic Objectives

The strategic vision and aims will be delivered through action under the following strategic objectives. These strategic objectives are aligned with the evidence base for action to improve air quality set out by the National Institute of Health and Care Excellence (NICE) (8) and the action set out in the national strategic documents:

<ul style="list-style-type: none"> • STRATEGIC OBJECTIVE 1: Place Making and Development for Good Air Quality
<ul style="list-style-type: none"> • STRATEGIC OBJECTIVE 2: Enable the Shift to Zero and Low Emission Transport to Reduce Emissions
<ul style="list-style-type: none"> • STRATEGIC OBJECTIVE 3: Reduce, Minimise and Prevent Emissions from Industrial, Commercial, Agricultural and Domestic Sources and activity
<ul style="list-style-type: none"> • STRATEGIC OBJECTIVE 4: Engagement and Communication for Behaviour Change

2.4. Strategic Objective 1. Place making and Development for Good Air Quality

The local planning system has the potential to positively impact on air quality as part of its aim to contribute to sustainable development. This can be through the system’s role in promoting healthy and safe communities, sustainable transport, achieving well-designed places and facilitating the sustainable use of minerals as set out in the 2018 National Planning Policy Framework (NPPF) (9).

The NPPF states that planning policies and decisions should contribute to national air quality objectives and local air quality plans. Planners should consider air quality at the plan making stage to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. It is envisaged that by securing reasonable emission mitigation on schemes, where appropriate, cumulative impact effects, arising from overall development can be minimised.

The new approach provides greater clarity and consistency for developers, which should help to speed up the planning process. Guidance has been developed through the East Midlands Air Quality Network which can aid this process (10) and several authorities are progressing Supplementary Planning Documents covering the issue. The Nottinghamshire Spatial Planning and Health Framework 2019-2022 (11) is also useful in this regard and sets out the rationale for the role of spatial planning and placemaking in the health of the population, and a protocol for incorporating health considerations into planning policy and development control.

Public Health England’s guidance on air quality interventions states that planning should aim to improve air quality and other health outcomes through the co-implementation of a mix of various measures that provide/improve green and active travel infrastructure, prioritise road safety, provide public transport and discourage travel in private cars. This should be done together with policies focussing on reducing the emissions of vehicles that have the highest potential to be effective at reducing emissions. (6).

We will achieve strategic objective 1 by:

- a) Incorporating air quality considerations into Local Plans.
- b) Ensuring sustainable transport opportunities are integrated within plan-making and development proposals.
- c) Working with developers to reduce the impact of new residential, commercial minerals and waste developments on air quality.
- d) Encouraging transfer to lower emission vehicles through the provision of electric vehicle charging infrastructure and promotional activities (for residents and businesses) in line with strategic objective 2.

2.5. Strategic Objective 2. Enable the Shift to Zero and Low Emission Transport & Reduce Emissions

As described in appendix 1, a significant proportion of emission of nitrogen oxides and particulate matter in Nottinghamshire comes from road transport, and this has a significant impact on local air quality. Reducing emissions from these sources is a key part of the government's air quality strategy and local transport strategies (3) (4) (12) (13). It is therefore essential that we work to reduce emissions from vehicles through local action. Transport teams within both Nottingham City Council and Nottinghamshire County Council will lead on this by ensuring air quality is a material consideration within the development of Local Transport Plans. Other parts of the public sector also have a significant role in this objective. The local Integrated Care Systems should lead on action within the NHS to reduce emissions from all related vehicles as set out in the NHS long term plan (5).

We will seek to encourage local residents, businesses and organisations (including public sector organisations) to move to zero and low emission transport options by making people more aware of their travel choices (particularly low-emission options) and providing infrastructure and training to enable people to make such journeys and reduce emissions from transport.

We will achieve strategic objective 2 by:

- a) Developing and delivering coordinated integrated programmes of measures to address journey time delay including:

- Infrastructure improvements to encourage more people to walk, cycle or use public transport more often.
- Encouraging and enabling people to make more sustainable travel choices (e.g. through travel planning and training) as part of objective 4.
- Targeted capacity improvements to address journey time delay (e.g. traffic signal improvements).

- b) Encouraging transfer to lower emission vehicles through the provision of electric vehicle charging infrastructure including in new developments in line with objective 1, and promotional activities (for residents, businesses, and public transport operators).
- c) Effective management of the highways networks, including planned and unplanned disruption on the highways network caused by street works, incidents and other activities.
- d) Working with operators to provide appropriate public transport services.

- e) Ensuring the regular exchange of information between transport planners, health and air quality colleagues relating to both air quality information and traffic information.
- f) Working with freight operators and organisations, passenger transport operators (e.g. bus, rail and taxi), and public sector transport operators and fleet commissioners to hasten the transition to the operation of zero and low emission vehicles and establish appropriate routes, delivery routines and driver practices to minimise congestion and pollution.

2.6. Strategic Objective 3. Reduce, Minimise and Prevent Emissions from Industrial, Commercial, Agricultural and Domestic Sources and activity

Industrial (including commercial) and domestic burning/combustion including commercial waste and domestic nuisance fires, cause most of the particulate matter pollution and a significant amount of the emissions of nitrogen oxides as described in appendix 1. Agricultural sources are the predominant sources of ammonia and all these sources contribute to emission of volatile organic compounds which react with other pollutants to form secondary pollutants such as ozone and particles (4).

This strategic objective will be partly delivered by the regulatory activity of the Environment Agency and local authority Environmental Health teams to reduce, minimise and prevent emissions from these sources to reduce their impact on local air quality. This work will evolve as the new local air quality framework emerges as proposed in the Clean Air Strategy (4).

We will achieve strategic objective 3 by:

- a) Ensuring through regulation, inspection and enforcement action that industrial, commercial and agricultural activities comply with Environmental Permits applicable to emissions to air from their industry.
- b) Enforcing existing (e.g. smoke control orders) and any new legislation that minimises emissions from commercial and domestic solid fuel combustion.
- c) Encouraging and facilitating increased energy efficiency and use of renewable/sustainable energy sources and supplies across sectors.
- d) Identifying and implementing strategies and measures that reduce or prevent emissions that adversely affect health and ecosystems.

2.7. Strategic Objective 4 – Engagement and Communication for Behaviour Change

It is important that people have access to the correct information about local air pollution and related risks to health in their area in the short and longer term. We will seek to raise awareness amongst local residents, households, businesses and organisations of local air pollution and the ways in which they can reduce their exposure.

We will put particular emphasis on protecting those at higher risk, including children, pregnant women, the elderly, and people with long term conditions as recommended by NICE (14). We will utilise the tools that have been proposed in Public Health England 'Improving people's health' strategy 2018 (15) and the Clean Air Strategy 2019. There is a role for local Public Health teams and the Integrated Care Systems to lead on this to ensure it is implemented locally.

Importantly we want to help people understand what they can do to improve their health and local air quality. Examples of some of the things that can be done are set out in appendix 3.

We will achieve strategic objective 4 by:

- a) Raising awareness amongst higher risk groups on how to reduce the exposure and the impact of air pollution on their health.
- b) Ensuring that health and care workers that come into regular contact with high-risk groups are aware of the advice they should give and what to do when air quality is poor, and that this is actioned.
- c) Providing clear coordinated messages on the risk of air pollution and what individuals and organisations can do to reduce their contribution to local air pollution.
- d) Aligning air quality messaging and behaviour change with other programmes which have mutual benefits such as promoting walking and cycling for physical activity and/or to address localised congestion.
- e) Promoting involvement in local, national and international awareness raising campaigns at an individual and organisational level.

2.8. Cross cutting principles of the Strategy

The following cross cutting principles will be followed to enable the effective delivery of the strategy:-

- ***Ensure our approaches reduce health inequalities.***

People living in the most deprived, particularly urban areas of England have significantly higher air pollution levels (PM₁₀ and NO₂) than those living in the least deprived neighbourhoods (16). The related research found that the 20% most deprived areas of the East Midlands which includes parts of Nottingham City and the county districts (appendix 4). It is therefore important that our planned actions do not exacerbate these inequalities and those related to air pollution and higher risk groups. For example, by shifting pollution from one area to another, or reducing in less polluted areas more than in areas with a greater need (17). But our actions should in fact strive to reduce inequalities related to air pollution.

- ***Use PHE's air pollution hierarchy in prioritizing intervention.***

This approach set out in Public Health England's 2019 review of interventions set's out how a system or department/service area should first prioritise prevention to reduce or eliminate emissions, over mitigation to reduce concentrations of pollutants, over avoidance to avoid individual being exposed without addressing the cause of the pollution (6).

- ***Take a health in all policies approach.***

Health in All Policies (HiAP) is an approach to public sector policies that systematically and explicitly takes into account the health implications of the policy decisions local authorities and other organisations take. It targets the key social determinants of health; looks for synergies between health and other core objectives and the work we do with partners; and tries to avoid causing harm with the aim of improving the health of the population and reducing inequity (18). This is therefore important in relation to air quality. For example in organisational transport or energy policy there should be a consideration of the impact on air quality and not just economic or operational efficiency.

- ***Base our approaches on evidence and learn through evaluation.***

There is a growing evidence base for modelling air pollution risk, and modelling intervention effectiveness and impact. We will use the available tools and those that are available in the future to ensure that our approaches are as effective and cost effective as possible. We will learn from approaches in other areas of the country and learn from our local interventions through undertaking effective evaluation.

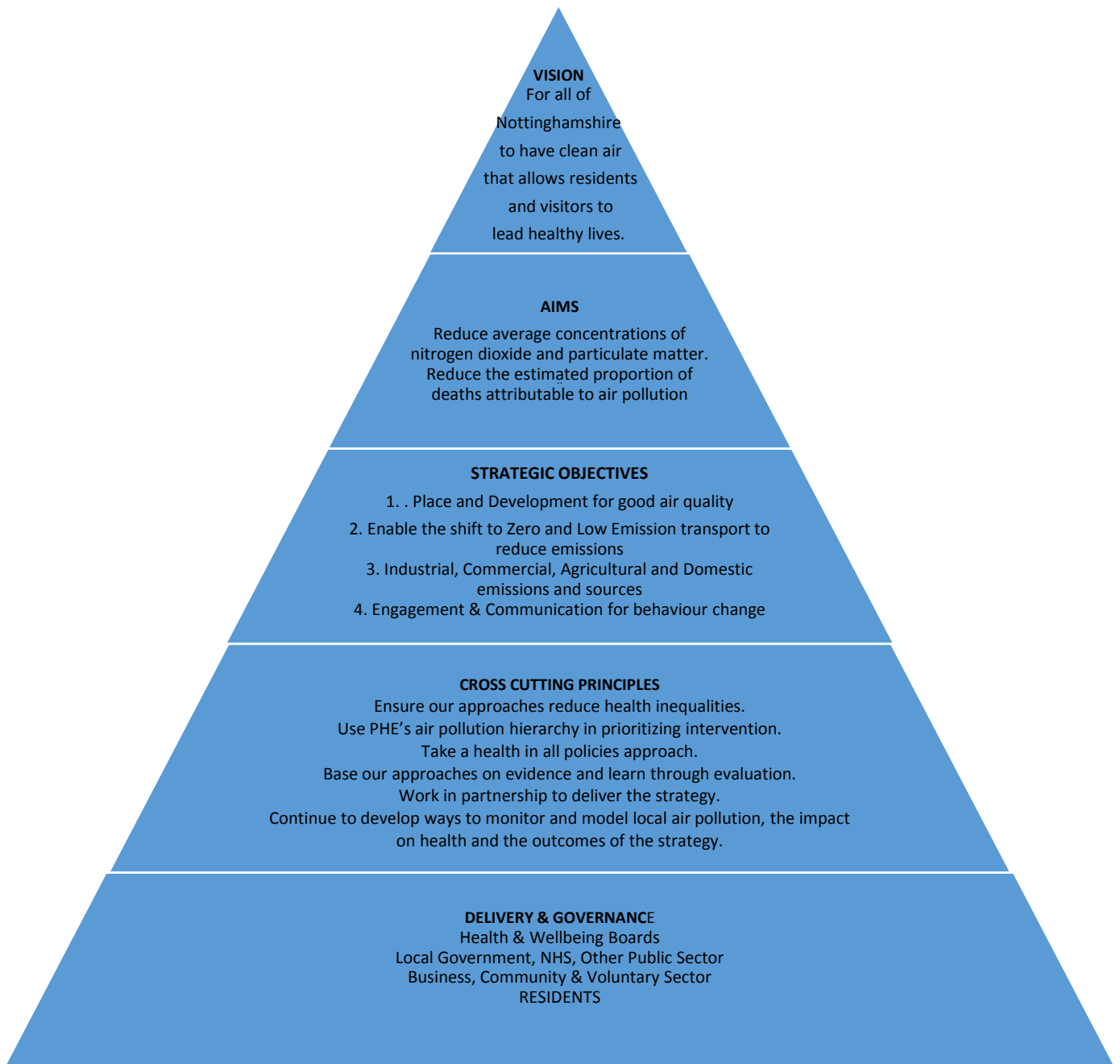
- ***Work in partnership to deliver the strategy.***

It is clear that air quality cannot be addressed by one organisation or sector alone. In order to utilise all local levers it is essential that all organisations consider their impact upon air quality. This includes the need to work across organisational boundaries to ensure that policies in one authority do not negatively transfer causes of air pollution or the pollution itself to neighbouring authorities. The need to work collaboratively has been highlighted as a policy objective in the national Clean Air Strategy.

- ***Continue to develop ways to monitor and model local air pollution, the impact on health and the outcomes of the strategy.***

The Clean Air Strategy has set out a new vision of the local air quality management system and improving national monitoring and reporting of air quality issues. We will work collectively in the longer term to adapt our local monitoring to this new regime and develop our local intelligence on air quality and health to better plan and deliver our air quality interventions.

Figure 2 Air Quality Strategy Summary



3. Delivery and Governance

Delivery of the strategy aims and objectives requires leadership across several organisations and strategies and plans in the health & wellbeing, transport, planning, environmental health, public health and health & care sectors in the Nottinghamshire and Nottingham City areas.

It is proposed that the Health and Wellbeing Boards will provide local system leadership on the air quality agenda.

Figure 3 Local Strategies and Plans aligned with this Air Quality Strategy



A strategy oversight group will be formed comprising a core of Environmental Health, NHS, Planning Policy, Public Health, Transport Planning representative of Nottingham City and Nottinghamshire. This group will meet once or twice a year to consider local air quality monitoring and modelling data, progress of any specific air quality delivery work streams and aligned strategy and the evidence base of effective interventions for improving air quality.

This purpose of the group will be to:

- Review progress of the delivery against the strategy aims and objectives.
- Ensure current programmes and projects are joined up in the local system for impact.
- Capitalise on new opportunities for strategic action on air quality.
- Review the partnership impact of implementation of changes to the local air quality management system.
- Coordinate and share local air quality modelling and monitoring at a strategic level.
- Identify and influence other strategic workstreams with co-benefits for air quality.

- Oversee the Joint Strategic Needs Assessment for Air Quality for both areas.

Review the strategy on a 5 year cycle to take into account longer term changes in air quality and evidence for the partnership action required to continue to make improvements.

Appendix 1 Local Air Pollution

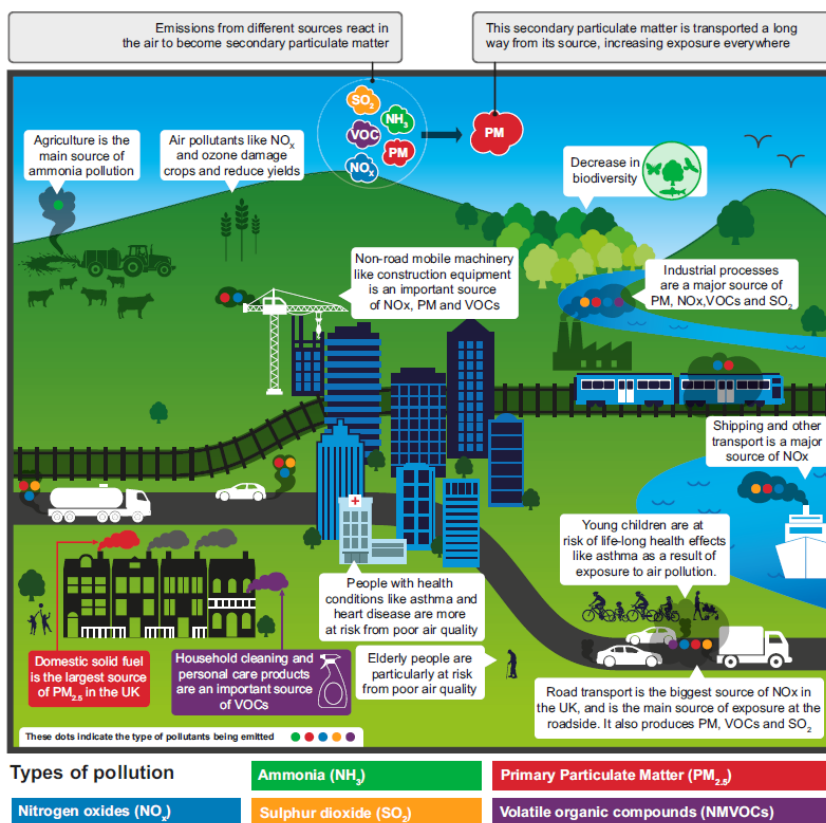
What is air pollution?

1. Sources of air pollution

Air pollution is defined as a mixture of gases and particles that have been emitted into the atmosphere by natural and human-made processes.

There are a range of pollutants as shown in Figure 1. The combustion of fossil and carbon based fuels such as coal, oil, gas, petrol/diesel and wood burning are the most significant sources of the key pollutants of concern to local authorities, and also emit carbon dioxide, a key greenhouse gas.

Figure 4 the sources of air pollutants and their effects (Source: DEFRA, 2018)



The pollutants we are most concerned about locally, because of their health effects, are:

- Nitrogen oxides (Nitrogen dioxide (NO₂) and Nitrogen oxide (NO))
- Particulate matter (microscopic particles - PM₁₀, PM_{2.5} and smaller)

a. Nitrogen Oxides

Nitrogen dioxide (NO₂) and nitrogen oxide (NO) (known together as Nitrogen Oxides or NO_x) are released into the atmosphere when fuels are burned (for example, petrol or diesel in a car engine or natural gas in a domestic central heating boiler). NO_x emissions from burning fossil fuels are mainly as NO, but some sources can release a lot of NO₂.

Road transport produces 34% of the NO_x in the air, and 80% near roadsides in the UK. Diesel vehicles are a particularly significant source of NO₂ and contribute 90% of the roadside emissions in the UK (3). Because of this road transport and particularly diesel vehicles are the main local sources of concern for NO_x pollution locally. Other important sources of NO_x emissions in the UK are power stations and refineries that use fossil fuels (22%), domestic and industrial combustion (19%), and other transport such as rail and shipping (17%) (4).

Nitrogen dioxide pollution¹ is a problem at several locations in Nottingham City and elsewhere in the county and there are currently (March 2019) five declared AQMAs resulting from nitrogen dioxide emissions due predominantly from road transport. These AQMAs range in size from a few streets adjacent to the localised issues) to the whole of Nottingham City following amendment to the city's previous AQMA2 (although it should be noted that the air quality exceedances are only on specific roads in the City, not the whole of the City). Each of these AQMAs has an associated Local Air Quality Action Plan and local authorities report on the status of AQMA and changes in local air quality monitoring and factors that affect local air quality in Annual Status reports. Given the breaches of air quality objectives beyond 2020 in Nottingham City predicted by DEFRA, Nottingham City was also required to conduct a detailed assessment and plan to address the air quality issues in the City (19).

Table 2 Local Air Quality Management Areas in Nottinghamshire

AQMA	Description	Date Declared	Pollutants of concern
Broxtowe	Next to the M1 motorway in Trowell.	01/02/2006	Nitrogen dioxide NO ₂
Gedling	Land adjacent to a stretch of the A60 Mansfield Road	01/04/2011	Nitrogen dioxide NO ₂
Nottingham City (AQMA 2)	The whole of the city's administrative area	09/01/2019	Nitrogen dioxide NO ₂
Rushcliffe*	An area encompassing the vicinity between the A60/Wilford Lane junction to Lady Bay Bridge (including land south of Trent Bridge) in West Bridgford.	01/09/2005	Nitrogen dioxide NO ₂
Rushcliffe*	Land adjacent to the A52 at Stragglethorpe	01/10/2011	Nitrogen dioxide NO ₂

* Rushcliffe AQMAs are under review in 2019 as No_x levels are below the threshold

b. Particulate matter

Particulate matter is the term for a mixture of solid particles and liquid droplets found in the air. Some particles, such as dust, dirt, soot, and smoke, are large or dark enough to be seen with the naked eye. Others are so small they can only be detected using an electron microscope. They are classified by size such as PM₁₀ or PM_{2.5} or smaller.²

¹ See appendix 1 for a description of pollutants and their impact.

² PM₁₀ (particles of ≤ 10µm (micrometres) diameter) or PM_{2.5} (particles of ≤ 2.5µm diameter)

Figure 5 Size of Particulate Matter



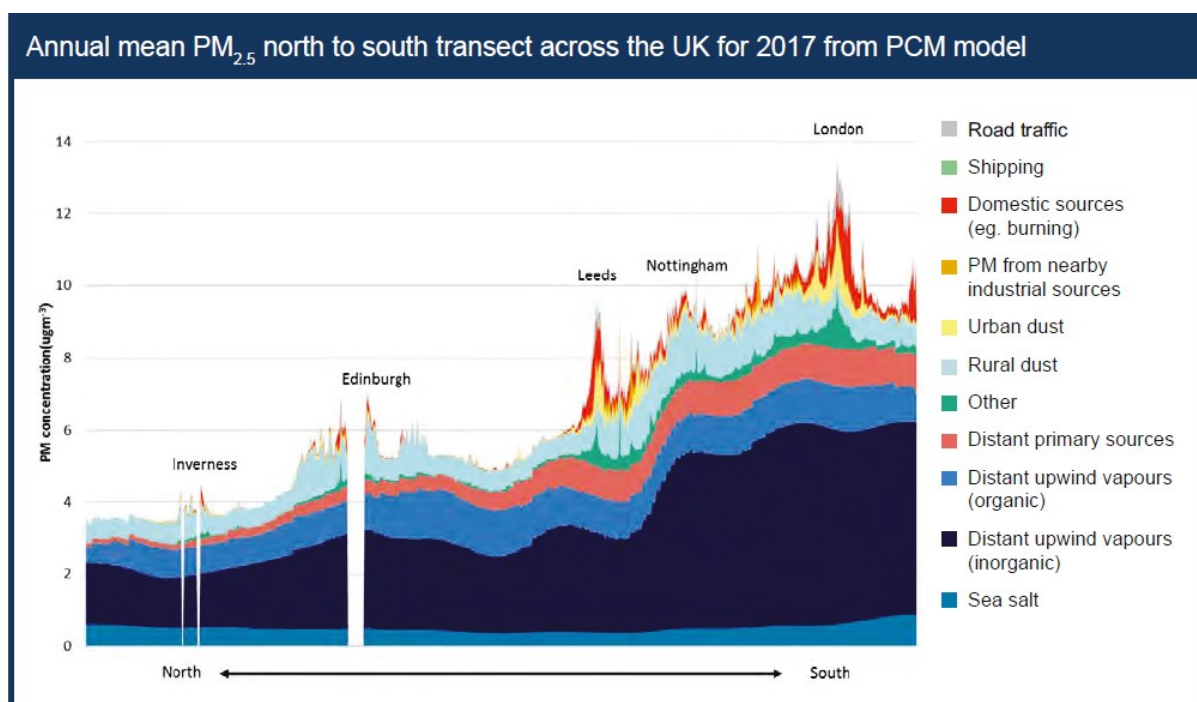
(Source: US Health Protection Agency)

Particulate matter consists of a wide range of chemical compounds and materials from natural sources such as pollen, sea spray and desert dust; and human made sources such as from fires, engine vehicle exhausts (particularly diesel engines) soot from vehicle exhausts, dust from tyres and brakes, as well as emissions from industry. It is also formed by reactions between other pollutants and in the air e.g. ammonia from agriculture. In the UK 38% comes from burning wood and coal in domestic open fires and stoves, 16% from industrial combustion, 12% from road transport and 13% from solvents and industrial processes, with the remainder comprising mainly 'secondary' particles. Natural and human made particulate matter can travel long distances such as from other parts of the UK and Europe (4).

Monitoring and modelling indicates there are locations in Nottingham City and Nottinghamshire where concentrations of small particulate matter³ (PM_{2.5}) exceed, or potentially exceed, the WHO annual mean guideline of 10 ug/m³ (20). On the ground these levels are particularly clustered around urban and residential areas due to the role of domestic and industrial burning. Also around the main road networks across the county, particularly where roads are busy or congested.

As well as explicit local emissions from roads and households etc.; it should be recognised that pollution is brought into the local area by the wind from further away. This background pollution is from a variety of sources as shown in figure 4 and combines with local sources in areas with a pollution challenge (4). This shows the important role that national policy and actions or inaction of other local authorities and agencies can influence our local air quality. It is therefore vital that there is multi-agency strategic response across Nottinghamshire.

Figure 6 Background sources of PM_{2.5} particulate matter pollution (Source: DEFRA Clean Air Strategy, 2019)



c. Other pollutants

Other pollutants such as ammonia and sulphur dioxide are also of concern in terms of their impact on the environment and human health. The main source of sulphur dioxide is the combustion of fuels containing sulphur e.g. oil and coal. There is already national regulation to control and minimise its emission. Ammonia is more problematic as it is generated by a wide range of essential agricultural activity and is a precursor to the formation of secondary particle formation, and can be significant contributor to overall particle concentrations.

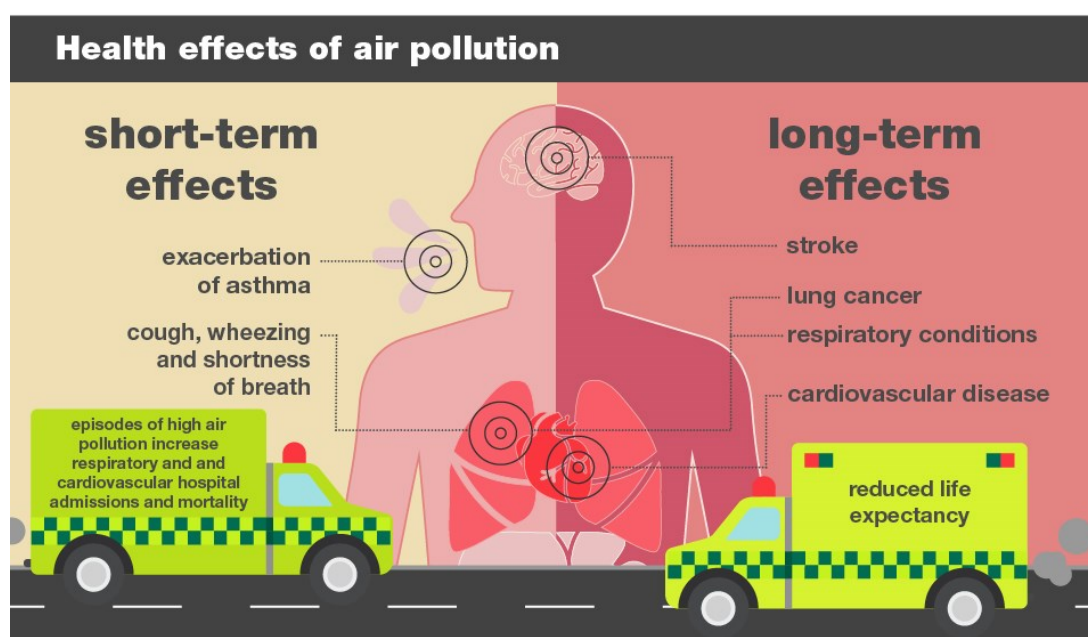
2. Health impact and cost of air pollution

It is known that harm to human health can occur at very low levels of pollution, and that there is currently no known safe level of exposure below which there is no risk of health effects (1). Air pollution is associated with a number of short and long-term adverse health impacts which can contribute to reduced life expectancy (see figure 2). It can negatively affect the development of babies during pregnancy and normal lung function growth of children and contributes towards asthma and other breathing and lung conditions. It is recognized as a contributing factor in the onset of cardiovascular disease and lung cancer, and there is growing evidence for its associations with dementia, low birthweight and type 2 diabetes (1).

Fine (PM_{2.5}) and ultrafine (PM_{0.1})³ particulates can cause these problems because they are so small that they can be drawn into the lungs and can pass into the bloodstream. Once there it is transport around the body and can be deposited in body issues and interfere and affect the body's metabolic processes. As particulate matter is made up of a range of different chemical compounds and materials it can affect the body's processes in different ways. Every year, it is estimated that long term exposure to man-made air pollution in the UK has an annual effect equivalent to 28,000 to 36,000 deaths (21).

³ PM_{0.1}; particles that are less than 0.1 µm in diameter

Figure 7 Health effects of air pollution (source: Public Health England a, 2018)



Air pollution can be harmful to all people, but some people are more affected because they live in more polluted areas or are more susceptible to the harmful effects of air pollution. Groups that are more vulnerable include children and older people, pregnant women, and those with heart and lung conditions. People living in the most deprived, particularly urban areas of England have significantly higher air pollution levels (PM₁₀ and NO₂) than those living in least deprived neighbourhoods (16). People that are from these groups and live in more polluted places such as near busy roads are particularly affected.

The care and treatment costs associated with these diseases place a significant burden on national and local health and care systems. The total NHS and social care cost due to PM_{2.5} and NO₂ combined in 2017 was estimated to be £42.88 million, increasing to £157 million when diseases are included where there is currently less robust or emerging evidence for an association. Between 2017 and 2025, the total cost to the NHS and social care of air pollution for where there is more robust evidence for an association, is estimated to be £1.60 billion for PM_{2.5} and NO₂ combined increasing to £5.56 billion when other diseases for which there is currently less robust evidence for an association are included (22). The broader costs to the UK economy of death and disability associated with air pollution are estimated to be £20 billion per year (23).

In addition to care and treatment costs, air pollution impacts on productivity in people of working age. It has been estimated using 2012 pollution levels that poor air quality cost the economy £2.7 billion though its impact on productivity (24).

3. Air quality guidelines, objectives & management

There are international guidelines for a range of air pollutants including particulate matter and nitrogen dioxide set by the World Health Organization (WHO) which are based on scientific evidence (25). In the UK there are air quality objectives which have been in line with EU air quality limits (table 1). The 2019 UK Clean Air Strategy set an ambition to meet the WHO annual mean limit guideline for particulate matter of 10 µg/m³. The Secretary of State for Environment, Food and Rural Affairs has responsibility for meeting the limit values in England

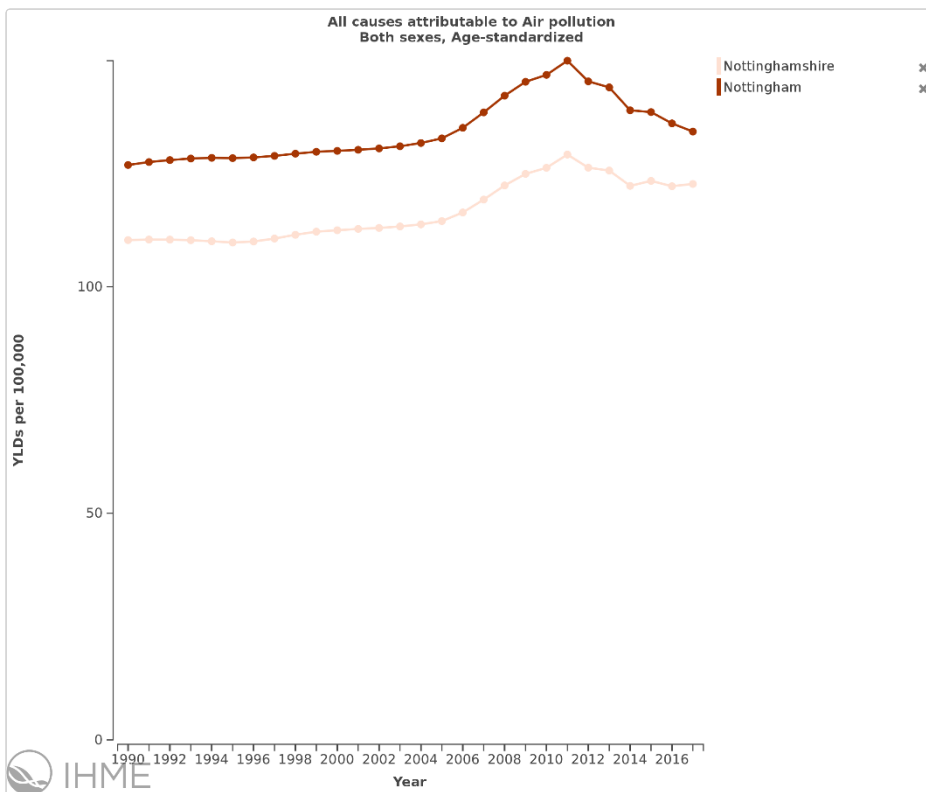
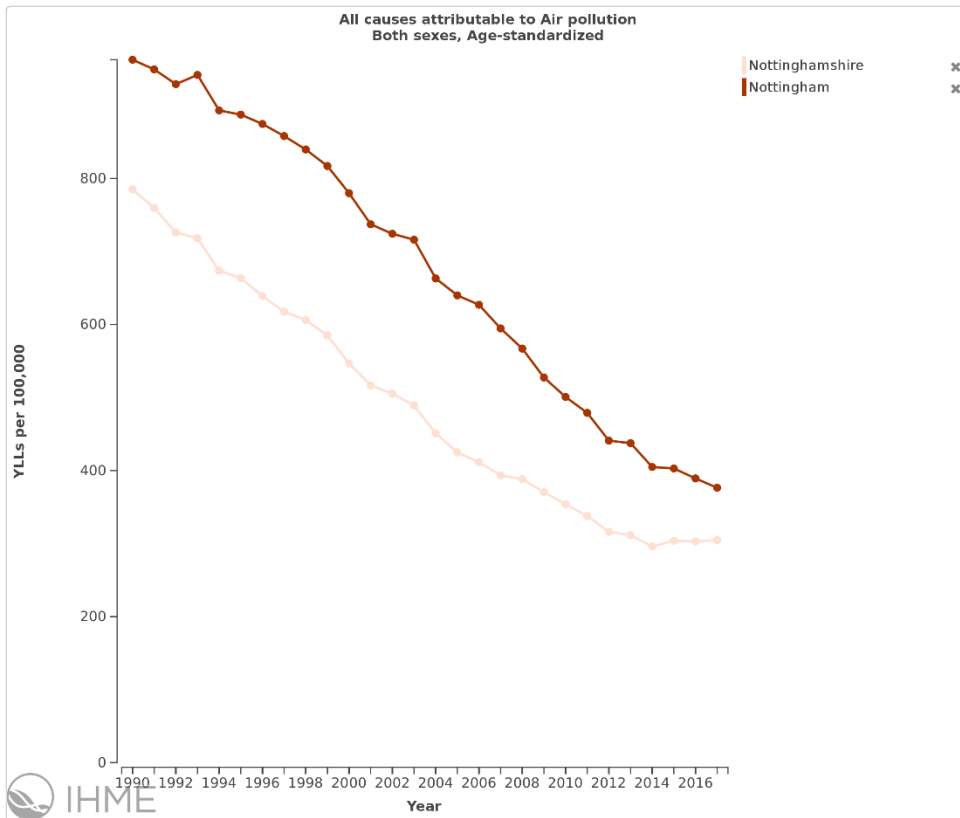
and the Department for Environment, Food and Rural Affairs (Defra) co-ordinates assessment and air quality plans for the UK as a whole.

It is the responsibility of local authorities to monitor and review air quality in their areas as part of the current Local Air Quality Management framework (LAQM). This is led by local environmental health teams in the District, Borough and the City Councils. If local air quality assessments identify a location where the UK objectives are not likely to be achieved, it must declare an Air Quality Management Area (AQMA) which is managed through a plan. (For more information on the LAQM see appendix 2).

Table 3 UK Air Quality Objectives for Particulate matter and Nitrogen Dioxide

Pollutant	Region	Objective/ European Obligation
Coarse Particulate matter (PM ₁₀)	World Health Organisation Guideline	24 hour mean - 50 µg/m ³ Annual mean – 25 µg/m ³
	UK Objective/ EU Directive Limit	24 hour mean - 50 µg/m ³ Annual mean – 40 µg/m ³
Fine Particulate matter (PM _{2.5})	World Health Organisation Guideline	24 hour mean – 25 µg/m ³ Annual mean – 10 µg/m ³
	UK Objective/ EU Directive Limit	Annual mean - 25 µg/m ³
	UK Clean Air Strategy 2019	Annual mean - 10 µg/m ³
Nitrogen dioxide	World Health Organisation Guideline	1 hour mean - 200 µg/m ³ Annual mean - 40 µg/m ³
	UK Objective/ EU Directive Limit	1 hour mean - 200 µg/m ³ Annual mean - 40 µg/m ³

Appendix 2 Modelled trend in Years of Life lost and Years lived I disability in Nottingham & Nottinghamshire (source: Global burden of Disease)



Appendix 3 Modelled reductions in morbidity, mortality and health and care costs from reducing population exposure from higher to lower levels of pollution

Table 4 Estimated reduction in mortality and morbidity in Nottingham & Nottinghamshire over 10 years if residents exposed to high levels ($\geq 12.3 \mu\text{g}/\text{m}^3$) of particulate matter ($\text{PM}_{2.5}$) in 2017 were exposed to lower levels ($< 12.3 \mu\text{g}/\text{m}^3$)^Σ over the next decade (Source: Local analysis using PHE 2018 air pollution healthcare costs tool)

Local authority	Adults (aged 19 or older)						Children (age 18 or younger)	
	Coronary heart disease ^α	COPD	Stroke	Diabetes	Lung cancer	Deaths ^β	Asthma	Diabetes
Ashfield	367	211	94	374	9	115	112	4
Bassetlaw	406	222	100	437	10	125	97	4
Broxtowe	480	264	124	485	13	151	122	3
Gedling	475	260	129	433	12	144	132	4
Mansfield	309	164	82	316	7	97	78	2
Newark and Sherwood	444	246	126	401	11	123	103	3
Rushcliffe	419	228	112	426	10	113	116	3
Nottinghamshire	2,900	1,595	768	2,871	72	868	759	22
Nottingham	1,796	1,049	480	1,938	47	546	433	11

^α For diseases, the numbers represent how many fewer residents would have the disease in 2027 if all residents lived in low $\text{PM}_{2.5}$ pollution areas - as opposed to the situation in 2017.

^β The number of deaths is the average, annual number of deaths avoided between 2017 and 2027 if all residents lived in low $\text{PM}_{2.5}$ pollution areas - as opposed to the situation in 2017.

^Σ High and low levels are set by the model.

Table 5 Costs avoided in $\text{PM}_{2.5}$ scenario-2017 alone

Local Authority	2027 costs avoided
Ashfield	£ 1,817,085
Bassetlaw	£ 1,966,194
Broxtowe	£ 2,288,375
Gedling	£ 2,241,058
Mansfield	£ 1,477,093
Newark and Sherwood	£ 2,111,683
Rushcliffe	£ 2,043,450
Nottinghamshire	£ 13,944,938
Nottingham	£ 8,850,224

Table 6 Cumulative costs avoided in $\text{PM}_{2.5}$ scenario- total over all years, 2017 to 2027

Local Authority	Cumulative costs avoided, 2017- 2027
Ashfield	£ 11,359,017
Bassetlaw	£ 12,028,504
Broxtowe	£ 13,986,104
Gedling	£ 13,949,322
Mansfield	£ 9,249,141
Newark and Sherwood	£ 12,299,652
Rushcliffe	£ 12,743,424
Nottinghamshire	£ 85,615,165
Nottingham	£ 54,638,311

Table 7 Estimated reduction in mortality^β and morbidity in Nottingham & Nottinghamshire over 10 years if residents exposed to high levels ($\geq 20.5 \mu\text{g}/\text{m}^3$)^Σ of nitrogen dioxide (NO₂) in 2017 were exposed to lower levels ($< 20.5 \mu\text{g}/\text{m}^3$)^Σ over the next decade (Source: Local analysis using PHE 2018 air pollution healthcare costs tool)

Local authority	Adults (age 19 or older)		Children (aged 18 or younger)	
	Diabetes ^α	Lung cancer	Asthma	Diabetes
Ashfield	158	2	19	
Bassetlaw	114	0	0	
Broxtowe	201	2	15	
Gedling	221	2	0	
Mansfield	137	3	16	
Newark and Sherwood	51	1	17	
Rushcliffe	115	1	16	
Nottinghamshire	998	11	83	7
Nottingham	1168	12	55	6

^α The numbers represent how many fewer residents would have the disease in 2027 if all residents lived in low NO₂ pollution areas - as opposed to the situation in 2017.

^β The modelling suggested no quantifiable effect on deaths or other disease groups cause by NO₂ pollution

^Σ High and low levels are set by the model.

Table 8 Costs avoided in NO₂ scenario- 2017 alone

Local Authority	2027 costs avoided
Ashfield	£265,245
Bassetlaw	£182,338
Broxtowe	£327,405
Gedling	£ 376,529
Mansfield	£226,568
Newark and Sherwood	£88,828
Rushcliffe	£193,351
Nottinghamshire	£1,660,264
Nottingham	£1,983,298

Table 9 Cumulative costs avoided in NO₂ scenario- total over all years, 2017 to 2027

Local Authority	Cumulative costs avoided, 2017- 2027
Ashfield	£1,619,635
Bassetlaw	£739,368
Broxtowe	£1,914,146
Gedling	£ 1,787,357
Mansfield	£1,350,475
Newark and Sherwood	£470,483
Rushcliffe	£1,154,999
Nottinghamshire	£ 9,036,464
Nottingham	£11,160,602

Appendix 4 Most deprived electoral wards in Nottingham and Nottingham with estimated higher levels of Pollution

Research by Fecht et al published in 2015 found that the most deprived fifth of areas⁴ in the East Midlands had significantly higher mean PM₁₀ and NO₂ air pollution concentrations (µg/m³) than the most affluent fifth. These are the wards in Nottingham and Nottingham that contain areas which fall within this definition.

Ward Name	Local Authority
Abbey Hill, Carsic, Central & New Cross, Hucknall North, Hucknall South Hucknall West, Huthwaite & Brierley, Leamington, Skegby, Stanton Hill & Teveral, Summit	Ashfield
Carlton, East Retford East, East Retford North, Harworth, Worksop East, Worksop North East, Worksop North West	Bassetlaw
Chilwell West, Eastwood Hilltop, Eastwood St Mary's, Stapleford North	Broxtowe
Bestwood St Albans, Calverton, Cavendish, Coppice, Ernehale, Netherfield	Gedling
Brick Kiln, Broomhill, Bull Farm and Pleasley Hill, Carr Bank, Ladybrook, Mar- ket Warsop, Newgate, Oak Tree, Penniment, Portland, Racecourse Ransom Wood, Warsop Carrs, Woodhouse, Woodlands, Yeoman Hill	Mansfield
Castle, Devon, Edwinstowe & Clipstone, Ollerton, Rainworth South & Blidworth	Newark and Sherwood
Aspley, Basford, Berridge, Bestwood, Bilborough, Bridge, Bulwell, Bulwell Forest, Clifton North, Clifton South, Dales, Leen Valley, Mapperley, Radford and Park, Sherwood, St Ann's, Wollaton East and Lenton Abbey, Wollaton West	Nottingham

⁴ For the deprivation the research used LSOA level income domain from the Index of Multiple Deprivation 2004 as the area-level socioeconomic indicator". The wards listed in the table have one or more LSOA in the top 2 deciles of scores for this domain in the East Midlands.

Appendix 5 Local Air Quality Management Process

Since December 1997 each local authority with responsibility for environmental protection in the UK has had a duty to carry out a review and assessment of air quality within their area. This process involves measuring several key air pollutants and trying to predict if they will change in the next few years.

The aim of this process is to ensure that the national air quality objectives are achieved throughout the UK and by doing so protect of people's health and the environment.

If a local authority determines that the objectives are not likely to be achieved, it must declare an Air Quality Management Area (AQMA).

The decision to declare an AQMA considers:

- the exposure of human populations and/or ecosystems to pollutants through measurement and modelling
- the relative contributions to these exposures from source sectors
- the impact that air pollution will have on human health and the environment

Throughout the UK many local authorities have declared AQMAs, however, many more have not found this necessary. In local authority areas with lower levels of road transportation, industrial emissions and domestic heating emissions and the objective pollutant concentrations have not been breached the local authority need not declare an AQMA. In these local authority areas the work to monitor and review air quality, as well as improve it, continues. In all areas intervention and monitoring is intended to ensure the air quality levels either remain below the objective values or improve. If the pollutant concentrations start to rise for any reason then the local authority has a duty to reconsider its position and give proper consideration to the declaration of an AQMA.

Local authorities ensure that air quality remains safe by engaging with local industry; regulating potentially polluting industries; ensuring air quality is a material consideration through the planning process; and by encouraging active travel options, which include walking, cycling and the use of low emission vehicles amongst others.

As there are different air quality issues in Nottingham City and each Nottinghamshire District and Borough, below you will find a link to each council website where you can search for air quality assessments and related plans and policies to reduce air pollution.

[Ashfield District Council](#)

[Bassetlaw District Council](#)

[Broxtowe Borough Council](#)

[Gedling Borough Council](#)

[Mansfield District Council](#)

[Newark and Sherwood District Council](#)

[Nottingham City Council](#)

[Rushcliffe Borough Council](#)

Appendix 6 How to get involved

Residents and businesses living or working in Nottinghamshire can improve the air quality in the area by taking simple measures. One of the most effective changes that can be made is to use more sustainable forms of transport and reduce dependency on the private car.

Below are some of the actions that we could all take.

- Use Public Transport – To use all means of public transport whenever possible e.g. buses, trams and trains. You can find your best journey options at: rail – <http://www.nationalrail.co.uk/>; bus and rail – <https://www.traveline.info/> and <http://www.triptimes.co.uk/>; and the tram timetable at <http://www.thetram.net/>. Within Nottinghamshire, further information to help people and businesses with journey planning and advice can be found at <http://www.nottinghamshire.gov.uk/travelchoice>; and within the Nottingham conurbation further information can be found at <http://www.thebigwheel.org.uk/>.
- Use Park and Ride – There are a number of Park and Ride sites within Nottinghamshire, which serve the tram and bus services. The locations of these can be found at <http://beta.nottinghamcity.gov.uk/transport-parking-and-streets/public-transport/park-and-ride/>
- Reduce the use of your car – Car sharing schemes – The County and City councils fund a car share scheme which can be found at <https://liftshare.com/uk/community/nottinghamshare#join>. The website helps people find others who are undertaking similar journeys so that they can car share. Businesses are also able to produce their own car share database including through the nottinghamshire website.
- Go electric – The County and City Councils are currently developing a local network of electric vehicle charging infrastructure. Grants are also available to businesses in Nottinghamshire (including the City) for vehicle charging infrastructure.
- Make sure your car is as efficient as possible by having regular maintenance checks on your vehicle and ensuring that the tyres are properly inflated and aligned. The way you drive your car also has an impact on fuel efficiency and emissions, driving tips to reduce fuel consumption can be found at <http://www.energysavingtrust.org.uk/transport/driving-advice>
- Cycle more – Use the extensive cycle routes that are available throughout the Nottinghamshire. Maps of cycle routes in the county and city are available at <http://www.nottinghamshire.gov.uk/travelchoice>; and maps of cycle routes in the city are available at <http://www.nottinghamcity.gov.uk/cycling>. The national cycling charity Sustrans also provides cycling information at <http://www.sustrans.org.uk/>
- Walk more - Walk short distances rather than drive, this also has the benefit of improving your health. More information can be found at <http://www.nottinghamshire.gov.uk/travelchoice>; and at <http://www.nottinghamcity.gov.uk/transport-parking-and-streets/rights-of-way-walking-and-cycling/walking-in-nottingham/>
- Forget the garden bonfire – do not have bonfires at all. Compost all garden waste and recycle rubbish rather than burn it. Many councils offer a waste collection services (some free of charge).

- Burn smokeless fuel – Large parts of Nottinghamshire are ‘smoke control areas’, therefore you cannot emit smoke from a chimney unless you are burning an authorised fuel or using an exempt appliance. Further information on suitable fuels and exempt appliances can be found at <https://smokecontrol.defra.gov.uk/index.php>. Appliances should be kept in good working order to ensure that they are working efficiently and it is advised that you contact your local council to determine whether or not you are in a smoke control area.
- Maintain boilers - Ensure that boilers are serviced regularly and kept in good working order. If a boiler needs replacing then purchase one that has a low NOx emission rating. Make your house more energy efficient so that you need to use your boiler less to heat your home.

Further information on garden bonfires, smokeless fuel and boilers is available from your local district, borough, or the city council.

1. Reducing emissions

Business success depends on many things; including the cost of energy to heat and light buildings and power ICT, manufacturing of goods and provision of services, haulage/fuel to transport and the distribution of goods and services. The health and wellbeing of staff is arguably a business’s most valuable asset.

To remain competitive it is vitally important to minimise costs and maximise productivity. To run and grow a successful business at economically challenging times isn’t simply a case of cutting back, it’s about efficiency and productivity; using less energy to heat and light buildings; power processes; getting more miles per pound; minimising the depreciation costs of assets; and promoting health and well-being in the work force to maximise productivity and minimise absence.

Air pollution affects both workers’ own health and that of their family, and time off work from illness or caring for family can have a major impact on productivity, business resilience and the ability to respond to opportunities and risks (24).

Therefore, considering the air pollution impact of your business activities and investing in technology that reduces energy/fuel use and increases efficiency and productivity is obviously good for your business.

2. Making a business case for sustainability

‘Mounting evidence shows that sustainable companies deliver significant positive financial performance, and investors are beginning to value them more highly.’ (26) ’

A good example of a business’s approach to sustainability, and the benefits it brings, is at:

<http://www.energysavingtrust.org.uk/about-us/corporate-social-responsibility>

and how the Energy Savings Trust could help your business:

<http://www.energysavingtrust.org.uk/business>

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A Breath of Fresh Air for Nottinghamshire

**An Air Quality Improvement
strategy for the next Decade**

Produced by The Nottinghamshire Environmental
Protection Working Group

Philip Mulligan, Managing Director Environmental Protection UK (formerly the National Society for Clean Air and Environmental Protection, NSCA)

'I am very pleased and honoured to be asked to write the Forward for this Air quality Strategy for Nottinghamshire.'



Every year local authorities are required to review and assess air quality within their districts under the provisions outlined in the Environment Act 1995. The National Air Quality Strategy 2007 (which has recently been revised) sets a number of Air Quality Objectives (set in regulations for certain pollutants) for the protection of human health and the environment to be achieved between 2003 and 2020. All Nottinghamshire Authorities completed their first review in

2001. This involved each local authority assessing in detail the impact on air quality of emissions from traffic, industrial and domestic sources. Further guidance was issued by the Department for Environment, Food and Rural Affairs (defra) and this resulted in more detailed Updating and Screening Assessments which were completed by all the authorities in Nottinghamshire in 2003 and more recently in 2006. All assessments have been approved by defra.

These results were collated by the Nottinghamshire local authorities. Consultants were employed to undertake modelling of the information to ascertain if any of the Government's Air Quality Objectives would be likely to be exceeded in the given timescales. Where appropriate, air quality monitoring was also carried out to validate the modelled data. If Objectives had been predicted to exceed the criteria, an Air Quality Management

Area (AQMA) was declared. A declaration means that an authority must set out a strategy to identify actions that will be taken to improve air quality within the AQMA and achieve the standards set. At the time of writing four authorities in Nottinghamshire have declared AQMA's or are in the process of declaring.

However, the remaining authorities have not put to one side the air quality issue and have recognised the need to continually improve air quality, regardless of the fact that they have not declared an AQMA. This is particularly important for the councils bordering on authorities that have declared. This framework outlines how the Nottinghamshire authorities, stakeholders and partner organisations intend to collectively tackle the problems highlighted by the air quality review and assessment process.

This framework identifies and agrees an effective strategy to improve air quality in the next decade throughout the whole of Nottinghamshire and also reduce greenhouse gas emissions particularly CO₂.

In most cases this has meant an authority drawing up and implementing its own local air quality strategy using the framework agreed by all the Nottinghamshire authorities. These strategies have specified action plans to improve air quality on a local basis.

We all can play a role in improving air quality and reducing the effects of global warming. I commend the Nottinghamshire authorities and partners for producing this document and urge everyone to consider how their actions can sustain and improve the good air quality in the County.

CONTENTS

Partnership Who's Involved?

This strategy has been prepared by a partnership of Nottinghamshire Local Authorities, the Environment Agency, The Health Protection Agency and the Highways Agency. The work has been led by the Nottinghamshire Environmental Protection Working Group.

Disclaimer

The information that this document contains is for guidance only and is as accurate as possible at the time of publication. The Partnership accepts no liability for the consequences of any reader acting upon inaccurate or out-of-date reference material or material advice.

Forward	Page 2
Introduction	Page 3
Aims and Objectives	Page 4
Map of District Boundaries	Page 5
UK Air Quality Objectives	Page 6
Map of Air Quality Management Areas	Page 7
Emissions in Nottinghamshire	Page 8
Public Sector	Page 10
Transport	Page 12
Planning and Land Use	Page 14
Health and Education	Page 16
Energy Efficiency	Page 18
Industry and Commercial	Page 20
Climate Change	Page 22
Domestic Sector	Page 24
Information and Services	Page 26
Central Government and European Activities	Page 28

Introduction

As early as 1661 the effects of air quality were recognised by John Evelyn when he wrote in 'Fumifugium or the Inconvenience of the Aer and Smoake of London Dissipated'

"Aer that is corrupt insinuates itself into the vital parts immediately; whereas the meats which we take, though never so ill conditioned, require time for the concoction, by which its effects are greatly mitigated; whereas the other, passing so speedily to the lungs and virtually to the heart itself, is derived and communicated over the whole masse: In a word, as the Lucid and noble Aer clarifies the Blood, subtilizes and excites it, cheering the Spirits and promoting digestion; so the dark and grosse (on the contrary) perturbs the Body, prohibits necessary Transpiration for the resolution and dissipation of ill Vapours, even to the disturbance of the very Rational faculties, which the purer Aer does so far illimitate, as to have rendered some Men healthy and wise, even to a Miracle."

The Royal Commission in 2007 confirmed an extra 25000 premature deaths due to poor air quality in urbanised areas.

People are generally becoming more concerned about the air they breathe and the effects of global warming and its effect on climate change.

Whilst the quality of the air has improved over the past 20 years with the establishment of smoke control areas in Nottinghamshire and tighter emission limits on industry, people now expect clean air to ensure a good quality of life. Recognising these expectations the Government now requires local authorities to monitor and manage local air quality.

The Environment Act 1995 requires local authorities to review and assess air quality annually to determine where standards set for air quality are likely to be exceeded. If they are exceeded then the local authority must issue orders designating Air Quality Management Areas (AQMAs). For these areas local authorities must draw up action plans to

improve local air quality to such an extent that the standards will be met. Plans may include actions to be taken both within and outside an AQMA. Actions could extend beyond a single Council's area and involve several councils and partner organisations working together. All local authorities in Nottinghamshire whether or not they have any AQMAs within their District, are recommended to devise local air quality strategies to improve air quality and minimise the effects of global warming and climate change.

The basis for the above is the National Air Quality Strategy 1997 (as amended in 2000 and 2002) which laid down a number of air quality standards for the protection of human health and the environment. This produced Air Quality Objectives to be achieved between 2003 and 2010. Objectives for 7 of these air pollutants (benzene, 1,3 butadiene, carbon monoxide,

lead, nitrogen dioxide, particles (PM10) and sulphur dioxide) were formalised in the Air Quality Regulations 1997 (as amended in 2000 and 2002). The strategy initially proposed an Objective for ozone; but this pollutant requires control on a national and international basis. The proposed Objective for ozone was not therefore formalised in the regulations but remains a target for action by national governments.

Local Air Quality Management (LAQM) is an ongoing process. An air quality framework agreed by all the local authorities and partner organisations in Nottinghamshire will ensure effective consultation and co-operation. Such collaborative and partnership working should improve air quality in Nottinghamshire. To that end this framework strategy identifies broad actions for co-operation between Nottinghamshire authorities and stakeholders such

as The Environment Agency. The Health Protection Agency and Primary Care Trusts to improve air quality. It identifies what actions will be taken, what actions should be taken and what additional actions should be supported.

This document has been compiled by local authority air quality specialists, the Environment Agency, Health Protection Agency and the Highways Agency. Its success in improving air quality in Nottinghamshire will be assessed by 2011.

Photo Evidence for the Case Against Smoke



The purpose of the 'A Breath of Fresh Air for Nottinghamshire' document is to help local authorities and partner organisations manage and improve ambient air quality and to protect the health and wellbeing of the public in a co-ordinated and integrated manner. In practice, having identified priorities to control air emissions and consulted the public on what action they might be prepared to take to minimise air pollution, the framework is a working document to provide and focus actions to improve air quality in Nottinghamshire.

No one individual, company or authority is ultimately responsible for air pollution and it is recognised that efficient air quality management requires strong multidisciplinary co-operation between stakeholders. In this structured approach local authorities and partner organisations in Nottinghamshire must work together to ensure complimentary actions on a regional basis to protect and improve the quality of the air we breathe.

A Framework for Action

The Framework for Action seeks to fulfil the following main objectives:



- Minimise air pollution and the impact of global warming and climate change.
- Encourage sustainable development in Nottinghamshire to protect the health and wellbeing of the population.
- To work with businesses, stakeholders and the residents of Nottinghamshire to encourage sustainable improvements in air quality.
- Support and maintain the work of the Nottinghamshire Air Quality Steering Group.
- Complement other county wide groups and strategies adopted and supported by Local Authorities and the County Council and other organisations such as the Environment Agency, Primary Care Trusts, Highways Agency and the Health Protection Agency.
- Ensure that the strategy to improve air quality in Nottinghamshire is reviewed by 2011.

Background

Local Authorities along with the County Council, Highways Agency, Primary Care Trust, Health Protection Agency and the Environment Agency have been working together to review and assess air quality in Nottinghamshire over the past 10

years. Initially emissions of a number of air pollutants for the whole of Nottinghamshire for 1997 and 2005 were estimated. Emission inventories were then modelled to give maps of ground level concentrations of these air pollutants to identify areas where air quality standards might not be met. In a lot of cases sophisticated monitoring was carried out to check the air quality in these areas and the predictions made by the modelling.

Most councils completed their initial review and assessment of air quality early in 2001. Following this, further Updating and Screening Assessments were completed in 2003 and 2006.

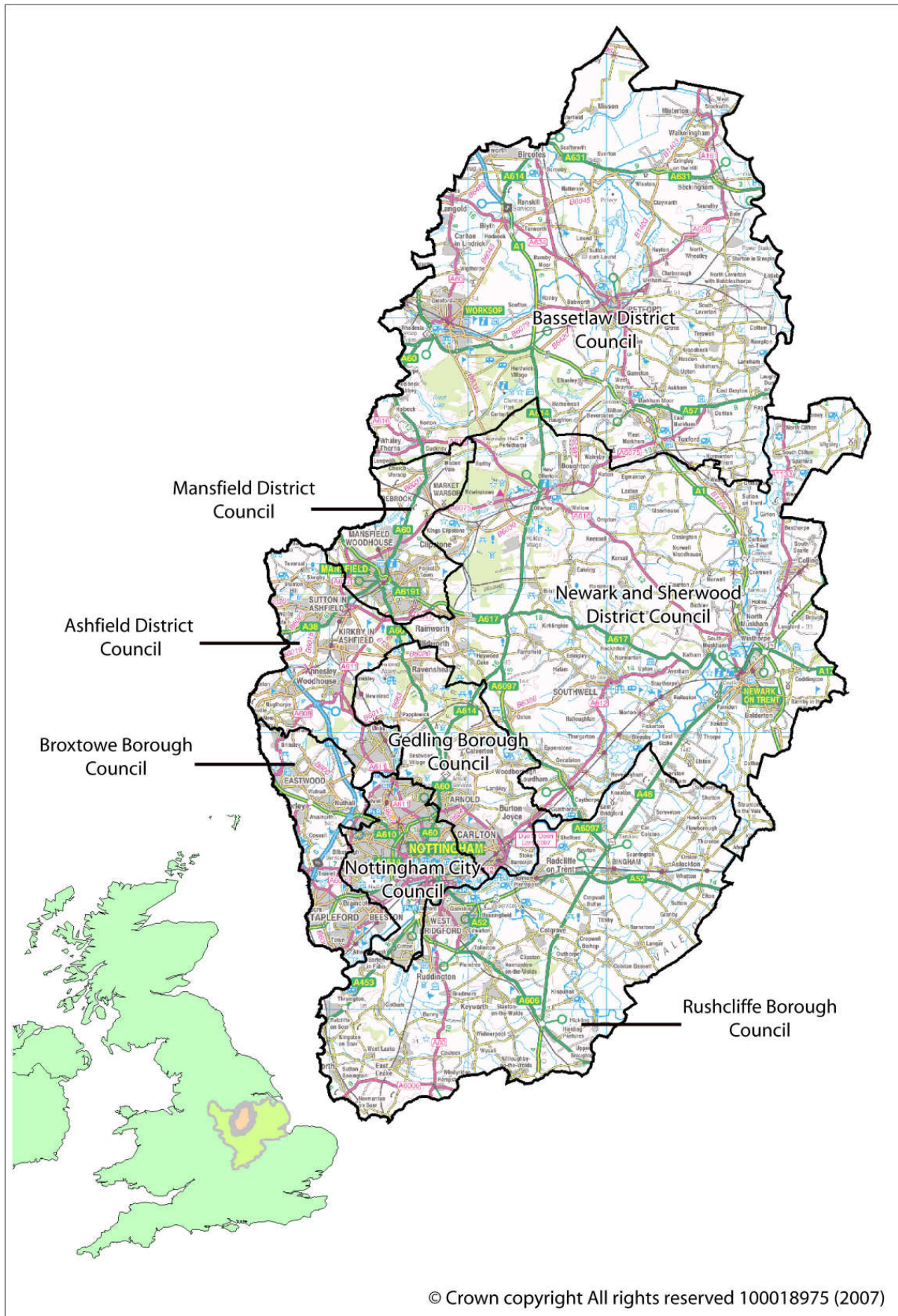
Where air quality standards have been shown not to be met or are border-line in achieving the standards, then the Nottinghamshire local authorities have either designated or quickly implemented actions for improvement. This whole process has demonstrated a commitment to achieve the standards. This whole process requires involvement with a number of stakeholders and agencies. One of the successes within Nottinghamshire is the collaborative and transparencies of working with all the agencies to ensure that the air quality standards set are achieved in a reasonable timeframe.

Although most Nottinghamshire councils have not had to declare any Air Quality Management Areas they are keen to ensure that they work together in the future in a co-ordinated manner to manage and, where possible, improve local air quality.

A summary of the 2006 emission inventory document is now included in the strategy. It is clear that the largest likely source of air pollutants arises from traffic, domestic combustion and the larger industrial processes such as power stations.

District Boundaries

in Nottinghamshire



UK Air Quality Objectives

Objectives included in the Air Quality Regulations (England) (Wales) 2000 and in Air Quality (England) (Wales) (Amendment) Regulations 2002 for the purpose of Local Air Quality Management.

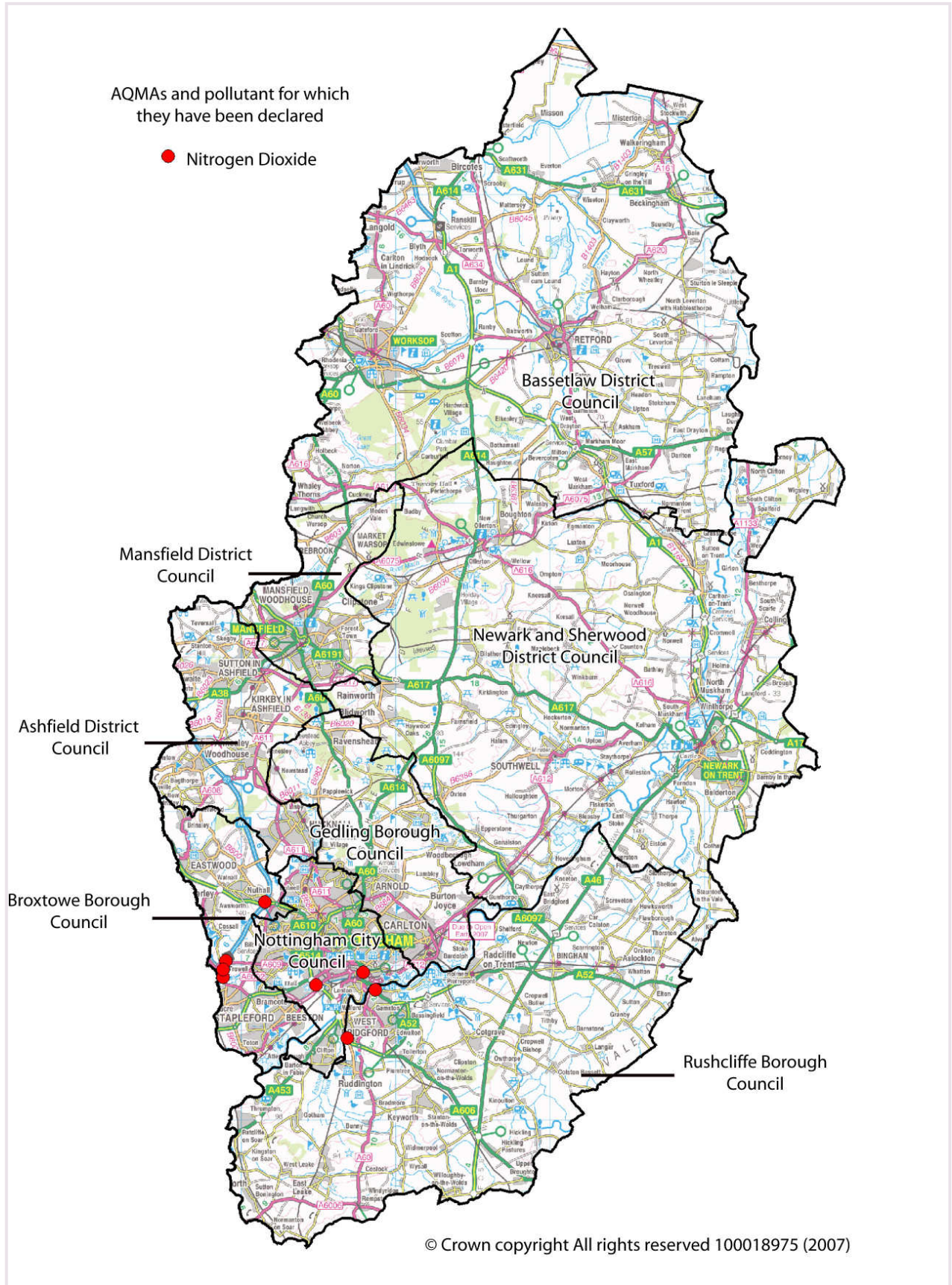
Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured As	
Benzene ¹	16.25 µg/m ³	Running annual mean	31.12.2003
	5 µg/m ³	Annual mean	31.12.2010
1,3-Butadiene	2.25 µg/m ³	Running annual mean	31.12.2003
Carbon monoxide ¹	10.0 mg/m ³	Maximum daily running 8-hour mean	31.12.2003
Lead	0.5µg/m ³	Annual mean	31.12.2004
	0.25µg/m ³	Annual mean	31.12.2008
Nitrogen dioxide ²	200 µg/m ³ not to be exceeded more than 18 times a year.	1-hour mean	31.12.2005
	40 µg/m ³	annual mean	31.12.2005
Particles (PM₁₀) (gravimetric) ³	50 µg/m ³ not to be exceeded more than 35 times a year.	24-hour mean	31.12.2004
	40 µg/m ³	annual mean	31.12.2004
Sulphur dioxide	350µg/m ³ not to be exceeded more than 24 times a year.	1-hour mean	31.12.2004
	125µg/m ³ not to be exceeded more than 3 times a year.	24-hour mean	31.12.2004
	266µg/m ³ not to be exceeded more than 35 times a year.	15-minute mean	31.12.2005

1. The Air Quality Objective of 5 µg/m³ for benzene and the Objective of 10µg/m³ for carbon monoxide came into force in separate Air Quality (Amendment) Regulations for England and Wales on 11 December 2002 and 31 December 2002 respectively.

2. The Objectives for nitrogen dioxide are provisional.

3. Measured using the European gravimetric transfer sampler or equivalent

Air Quality Management Areas in Nottinghamshire



Background

Contribution by Source of Emissions in Nottinghamshire

Purposes of an Emissions Inventory

Nottinghamshire Authorities engage consultants to undertake an emission inventory every three years. An emissions inventory allows the magnitude and spatial distribution of emissions across an area to be investigated and enables the relative importance of different sources of air pollution to be examined and identifies temporal and spatial trends.

The emissions data has a further role in providing the basis for dispersion modelling exercises and air quality management planning. In conjunction with transport models it also provides the basis for forecasting air quality and determining the effects of changes in land use planning and transportation policies.

An atmospheric emissions inventory will therefore be of key significance:

- As an underpinning and benchmarking tool for undertaking air quality reviews as described by the Air Quality Strategy (DETR, 2000) and enshrined in the Environment Act 1995;
- For assessing the impact of new development and the changes to road infrastructure or the process of identifying the environmental benefits in any proposed urban change;
- For developing air quality action plans; and
- To provide input to dispersion modelling which can be used to guide or refine air quality monitoring networks

Pollutant	Point Sources				
	Total 2004	Part A*	Part B	Boilers	Petrol Stations
Sulphur Dioxide	120230	119866	304	60	-
Nitrogen Dioxide	71972	69037	2300	635	-
Carbon Monoxide	15758	12973	1640	1145	-
Particulate matter below 10 microns	1810	1259	280	271	-
Non Methane VOCs	3816	350	1295	29	2142
Benzene	13	3		1	9
1,3 Butadiene	2.4	2			0.4
Carbon Dioxide	28508914	28427241	4006	77667	-
Poly Aromatic Hydrocarbons	79	-		79	-
Lead	5	3	0	2	-

*Including West Burton, Cottam and Ratcliffe-on-Soar power stations

Summary

Emissions of the key primary pollutants in the Air Quality Strategy were estimated from all sources where possible. Emissions of the greenhouse gas CO₂ were also estimated. Emissions from lead, benzene, 1,3 butadiene and PAH's were estimated where emission factors were readily available.

The largest contributions to the estimated emissions of key pollutants in Nottinghamshire are made by the 2 power generators. The second largest contributor to NO_x and PM₁₀ emissions is road transport. Road transport is the largest single contributor to emissions of CO, benzene and 1,3-butadiene.

Cottam Power Station



The key UK Air Quality Strategy Objective for coal-fired power stations is the sulphur dioxide 15 minute Objective. The purpose is to limit, to a maximum of 35, the number of 15-minute instances in any one year that sulphur dioxide is present in the air at a concentration greater than 100 parts per billion (ppb).

To achieve this challenging Objective, power stations can fit flue gas desulphurisation plant (FGD), use lower sulphur coals or avoid times when there is a high risk of poor dispersion conditions, such as the middle of the day in summer.

EDF Energy chose the FGD route, which is the most effective way of meeting the limit. FGD removes more than 90% of sulphur dioxide emissions from the station exhaust gas. This ensures air quality compliance, with a high degree of confidence. The FGD at West Burton became fully operational at the end of 2004. FGD is now operational on most units at Cottam and will be fully completed in 2007.

FGD operation, combined with lower sulphur coals at Cottam, ensured that in 2004 the Air Quality Objective was achieved at all monitoring sites around EDF's two power stations. This was a year ahead of the official deadline of 2005 and a high level of compliance has been maintained since.

EDF's monitoring site near Cottam provides a good example of the effectiveness of the measures taken. The number of times that sulphur dioxide concentrations exceeded the 100 ppb level dropped from 91 in 2003 to just 5 in 2004.

EDF Energy continues to provide the local authorities and the Nottinghamshire Air Quality Steering Group with regular updates on air quality and is happy to work with the regulators to reduce emissions and improve environmental performance.

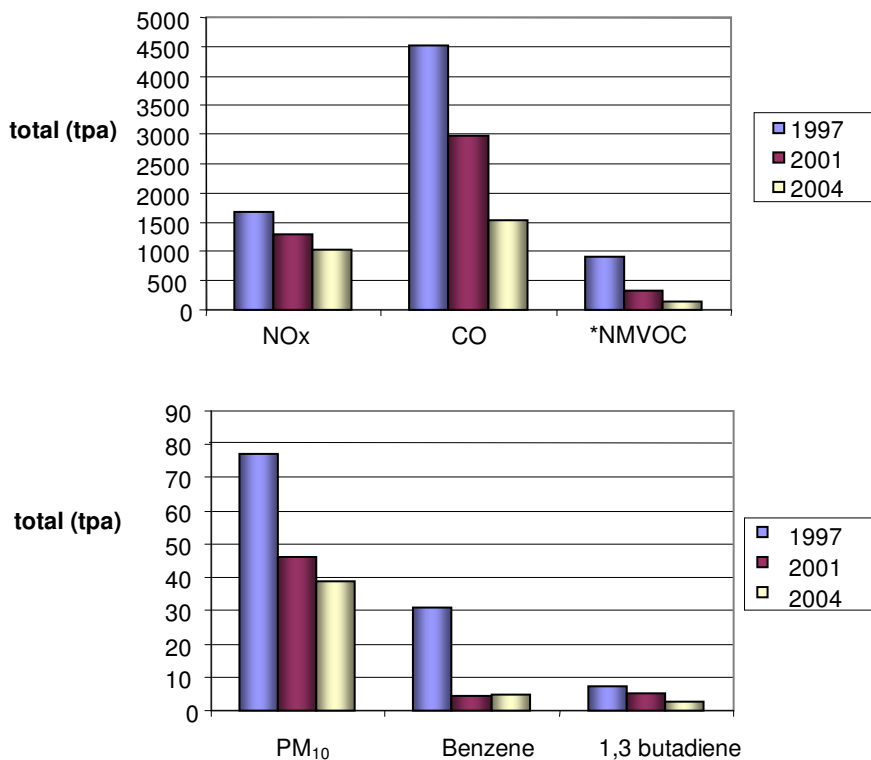
It is pleasing to see that overall emissions have reduced since 2001 continuing a downward trend from 1997. This is for all pollutants apart from the greenhouse gas CO₂. This is a pattern shared with most areas in the UK.

Emissions of the key pollutants from road transport have decreased significantly from 1997 and further still since 2001, with emissions of NO_x down by approximately 20% and emissions of PM₁₀ down by approximately 16%. This decrease is largely due to the improvements in engine technology and the increased penetration of the vehicle fleet with more modern vehicles with lower emissions of these pollutants.

Emissions of the key pollutants from industrial processes are also generally lower than in 2001 and significantly lower than industrial emissions in 1997.

The increase in CO₂ emissions since 2001 is mostly (86%) from an increase in CO₂ emissions from the 2 power generators in Nottinghamshire. The power generators are estimated to account for about 96% of the CO₂ emissions in Nottinghamshire. It is worth noting that emissions of CO₂ are not a local air quality issue and contribute only to global warming and climate change, the location of these emissions whether within or outside Nottinghamshire has no bearing on their impact. The increase in CO₂ emissions is of course related to our increased demand for energy.

A comparison was made between selected source categories for 1997, 2001 and 2004. The bar charts below show a comparison of a number of pollutants.



*NMVOC – Non methane Volatile Organic compounds
PM10 Particulate Matter below 10 micron size fraction

Public Sector

This area is one of the Sectors that the Nottinghamshire Authorities can influence directly. The management of air quality is a statutory duty on all Local Authorities in the UK. The Nottinghamshire Authorities have however decided to encourage actions to improve air quality in the whole of Nottinghamshire over and above the minimum statutory requirement.

This means co-operation and co-ordination with all the major stakeholders involved with air quality issues. There is an active Nottinghamshire Corporate Air Quality Steering Group which meets at least four times a year. The Highways Agency, Environment Agency and the Health Protection Agency are all active members of this Group contributing to the overall Objective of improving air quality and reducing greenhouse gas emissions in Nottinghamshire. The group also has representatives from academia which enables it to keep up to date with new developments and research into Global warming and climate change.

Monitoring Network and Website

An air quality monitoring network has been established throughout the county and before the end of 2007 the data from this network will be published via a website giving local air quality updates. The data will also be processed and displayed in council offices so the general public can have clear, simple information on air quality in their local area.

In addition, currently the group is investigating a corporate approach to the supply and analysis of NO₂ Diffusion Tubes using a single laboratory to increase efficiency and accuracy of results as well as reducing costs.



Government Grant

During 2006 the group was successful in obtaining a grant of 46K from Defra to fund the development of the countywide AQ information system as described above. A suitable company has been selected and this company will provide a web-based solution for collating and distributing the monitoring information.

Further Resources Website:

- Defra
Air Pollution - What it means to your health, leaflet
<http://www.defra.gov.uk>
- NSCA
<http://www.nsca.org.uk/pages/index.cfm>
National Society of Clean Air and Environmental Protection.
- Nottinghamshire local authority air quality pages
http://www.broxtowe.gov.uk/index/enviro/environ_pollution/pollution_air.htm

<http://www.rushcliffe.gov.uk/doc.asp?cat=9441>

<http://www.gedling.gov.uk/index/env-home/pe-poll-home/pe-poll-agm.htm>

<http://www.ashfield-dc.gov.uk/ccm/navigation/environment/pollution/air-pollution/monitored-air-pollutants/>

<http://www.mansfield.gov.uk/index.aspx?articleid=201>

<http://www.newark-sherwooddc.gov.uk/pp/gold/viewGold.asp?IDType=Page&ID=7119>

http://www.bassetlaw.gov.uk/index/environment/environment_and_health_services/pollution.htm

http://www.nottinghamcity.gov.uk/sitema/p/environment/pollution/air_pollution/air_quality.htm

<http://www.defra.gov.uk/environment/airquality/index.htm>

<http://www.airquality.co.uk/archive/index.php>

<http://www.naei.org.uk/>

<http://www.opsi.gov.uk/si/si2001/20012315.htm>

Further reading

- Authorities recent USAs (2006)
- Nottinghamshire Emissions Inventory (2004)
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland Working Together for Clean Air (2000)
- Consultation on new strategy (2006)

What actions can be taken to improve air quality?

What actions will be taken to maintain and improve air quality in Nottinghamshire?

- All Authorities will review annually air quality in their districts in line with the statutory duty and government guidance.
- Facilitate meetings of at least four per year of the Nottinghamshire Air Quality Steering Group.
- Manage and update as necessary an emissions inventory for the whole of Nottinghamshire.
- Review on a local basis, and when practical reduce emissions to air from their own activities and in particular energy generation.
- Implement all the legislative requirements necessary to improve air quality and in particular the setting up of Air Quality Management Areas (AQMAs). In doing so however, to consult with all stakeholders and the general public to ensure that the process is open and transparent for comment.
- Comment on targets for greenhouse gas reductions.
- Establish a web based information system providing up to date real time air quality information.

What actions should Councils Support?

- Adopt a Local Air Quality Improvement Strategy that involves consultation with stakeholders and the public.
- Adopt partnership working across all areas of air quality assessment.
- Adopt policies that protect the health and welfare of individuals and the environment from poor air quality.

What actions are Councils encouraged taking?

- Work with the Local Authorities, businesses, partners and all stakeholders to reduce emissions of air pollutants from processes in Nottinghamshire.
- Collate all monitoring data in the County and use it to maintain and improve air quality throughout the whole of Nottinghamshire.

What actions are taken by Partner (or Stakeholders) organisations?

- **Health Protection Agency** – HPA and the Primary Care Trusts to provide expert advice on health issues when required and in particular when air quality incidents occur.
- **Environment Agency** - The Agency will work towards shared strategies with our partners at a local level to improve air quality from all sources. Provision of information in an understandable, accessible format on air quality issues, including emissions inventories, will be a priority for the Agency.
- **Highways Agency** – The HA is committed to working in partnership with local authorities towards the delivery of the Air Quality Strategy, including maintaining and supporting our guidance on air quality assessment, making available our air quality monitoring data via the internet and working to develop and evaluate traffic control systems which reduce vehicle emissions. We are also working towards improved performance in emissions control during our construction and maintenance activities.

CASE STUDY



• Eastcroft Incinerator

The Environment Act 1995 requires all local authorities to identify sources of pollution within their area. However, pollution does not respect boundaries and a polluting source in one district, may have an adverse effect on a neighbouring authority. The proposed expansion of the Eastcroft Incinerator, Nottingham, could have affected neighbouring authorities in terms of air quality.

As a result, the Nottinghamshire Air Quality Steering Group was regularly kept updated and attended meetings to discuss their concerns on the impact of the development ensuring air quality Objectives were not compromised.

Transport

Transport

One of the main sources of air pollution is road transport, particularly in urban areas; around busy roads, at congested junctions and where traffic is stood with engine idling. Shorter car journeys such as the school run or trips to the shops, produce proportionally higher concentrations of pollutants because vehicle engines do not have a chance to heat up fully and therefore do not work at full efficiency when working over shorter distances.

The majority of the Air Quality Management Areas are primarily transport related and reducing road transport's contribution to emissions is therefore a key part of local authorities' responsibilities.

The Greater Nottingham Local Transport Plan (GNLTP) and the North Nottinghamshire Local Transport Plan (NNLTP) have recently been through a process of review. This process of review results in several options which are then considered through a Strategic Environmental Assessment (SEA).

The overall LTP objectives should be compatible with the SEA objectives; SEA objectives include:

- To maintain and improve air quality in the Air Quality Management Areas and then across all areas
- Reduce greenhouse gas emissions from transport and the use of fossil fuels
- Reduce the need to travel through the promotion of sustainable development locations
- Promote accessibility to public transport, cycling and walking
- Reduce reliance on travel by car

The GNLTP has chosen a package that includes the base LTP programme plus Nottingham Express Transit (NET) Phase 2, Workplace Parking Levy and associated measures to represent implementation of high quality public transport improvement linked to pricing restraint. The NNLTP has considered the option through a SEA, the preferred LTP option, is anticipated to tackle congestion hotspots and encourage more sustainable travel.



Underpinning all Nottingham's transport developments and achievements, the Big Wheel campaign provides an over-arching marketing campaign to explain the aims of the Local Transport Plan in simple, engaging and accessible terms. The Greater Nottingham Transport Partnership, representing councils and companies across the city and its surroundings and

backs the Big Wheel campaign. Distinctive branding and high profile campaigns have helped to raise public awareness about local transport issues, how they are being tackled and promoted to encourage public transport use.

Further Resources Website:

- **Defra**
Air Pollution - What it means to your health, leaflet
<http://www.defra.gov.uk>
- **NSCA**
<http://www.nasca.org.uk/pages/index.cfm>
National Society of Clean Air and Environmental Protection.

- **The Big Wheel**
<http://www.thebigwheel.org>

Nottingham Express Transit
<http://www.nottinghamexpresstransit.com>

- **LTP's**
http://www.nottinghamshire.gov.uk/home/traffic_and_travel/strategy-policy/ltp.htm
http://www.nottinghamcity.gov.uk/transport_and_streets/

- **A453 Multi Modal Study**
<http://www.gov.uk/transport/mmr-b-studies/a453/default.htm>

- **M1 Widening**
<http://www.highways.gov.uk/roads/projects/4347.aspx>

- **Dft 'Act on CO₂'**
<http://www.dft.gov.uk/ActOnCO2/>

Further reading

- **Planning Policy Statement 23:**
Planning and Pollution Control. ODPM 2005.
- **Air Quality:**
Planning for Action. NSCA 2001.
- **Climate Change:**
Framework for Action in Nottinghamshire. NottsCC.

What actions can be taken to improve air quality?

What actions will the Council Support?

- Use air quality targets in Local Transport Plans
- The reporting of smoky diesels (heavy goods vehicles) to the Vehicle Inspectorate.
- Parking restrictions where appropriate.
- Restricted vehicular access to towns and city centres where appropriate

What actions should the Council Support?

- Larger employers in developing green commuter plans or car sharing schemes.
- Use of park and ride schemes to secure improvements in air quality.
- Integrated transport systems.
- Cycle and pedestrian routes.
- Use of green fuels.
- Bus quality partnerships
- Business initiatives to replace their existing fleet vehicles with greener alternatives when they need replacing.
- Replace Council vehicles with more environmentally friendly vehicles when opportunity arises

What actions are Councils encouraged to take?

- Review how staff travel to work and put in place a green commuter plan or car sharing scheme where appropriate.
- Review their car leasing and loan schemes to give incentives for smaller more fuel-efficient cars.
- Review their taxi licensing schemes and promote incentives for the use of cleaner fuels.
- Support initiatives to check emissions from vehicles and reduce exhaust emissions.

What actions are taken by Partner (or Stakeholders) organisations?

- **The County Council** – Provide a sustainable and efficient transport network accessible to everyone in Nottinghamshire.
- **The Environment Agency** - The Environment Agency is the Government's principal adviser on the environment. Although we have few formal transport powers (with the notable exception of those relating to inland waters navigation in certain areas of the country), decisions taken in transport policy have environmental impacts which affect our role in managing air and in responding to climate change. We highlight the issue of transport and its environmental impact at a strategic and operational level. In commenting on these issues we will draw attention to environmental priorities and to those areas that have an impact on our regulatory decisions.
- **Health Protection Agency** - HPA and the Primary Care Trusts support and encourage within their organisations environmentally sound transport strategies, such as workplace travel plans and 'green' travel initiatives.
- **The Highways Agency** - The HA can influence air quality through contributing to strategic planning, improving roads and integrating transport and improving sustainable travel. The HA will provide better information for improved operation in supporting Local Authorities in delivering the National and local Air Quality Strategies.

Case Study



Nottingham Clear Zone

The Nottingham Clear Zone is part of a national initiative to reduce congestion and pollution within urban areas to provide cleaner, safer places where people can socialise, work and shop. By applying traffic access restrictions within the City Centre, setting emission and quality standards for public transport and encouraging the use of low/zero emission vehicles, Nottingham City Council aims to ensure Nottingham's continued popularity and vitality whilst reducing unnecessary car journeys into the City Centre.

The Nottingham Clear Zone was introduced at the end of 2001 early 2002 and excludes all but essential traffic from the Clear Zone during the middle of the day. The scheme was reviewed and some access restrictions simplified in November 2004.

With restrictions on traffic flow through the Clear Zone area, there is less traffic on the roads around the Old Market Square making it a cleaner, safer place for people to visit. In addition, with more environmentally-friendly buses, taxis and the tram, visitors have easy, reliable access into the City Centre using transportation that doesn't pollute and congest the City's environment.
<http://www.nottinghamclearzone.com/>

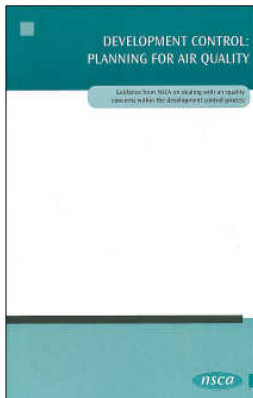
Planning and Land Use

The Government attaches great importance to controlling and minimising pollution and is committed to the principles of sustainable development. The planning and pollution control systems are separate but complementary in achieving sustainability and protecting the environment.

Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the release of substances to the environment from different sources. The planning system controls the development and use of land in the public interest. It plays an important role in determining the location of developments which may give rise to pollution in that area. Nottinghamshire air quality specialists are very keen to work closely with planning departments to ensure that effective pollution control measure are put in place during the planning process. It is far easier to deal with air pollution in the planning process than later when problems have occurred.



Development Control – Planning for Air Quality, National Society Clean Air Guidance



An extract from the text is.. The management of social, economic and environmental issues at a local level has become increasingly complex, requiring interactions across a wide range of policy areas. Air Quality is no exception. Information relating to the state of the atmospheric environment has traditionally come from the environmental health/ pollution control functions of the local authorities. The main levers for action exist within the policy spheres of transport planning and development control. However, the improvement of air quality exists as a duty of local authorities as a whole and it is only through coherent corporate action that this duty can be discharged.

Development control carries the responsibility for integrating a very wide range of issues into planning decisions. Development control officers must therefore rely on the input of experts from other policy areas to inform those decisions. The process for doing this has varied considerably, both across different local authorities and over time. Guidance produced by the National Society for Clean Air has been issued to promote a greater consistency in this process and through doing so help to maximise the beneficial effects of good development control on air quality and the wider environment.

Further Resources

Website:

- **Defra**
Air Pollution - What it means to your health, leaflet
<http://www.defra.gov.uk>
- **NSCA**
<http://www.nasca.org.uk/pages/index.cfm>
National Society of Clean Air and Environmental Protection.

Further reading

- **Planning Policy Statement 23:**
Planning and Pollution Control. ODPM 2005.
- **Air Quality:**
Planning for Action. NSCA 2001.
- **Climate Change:** Framework for Action in Nottinghamshire. NottsCC.

What actions can be taken to improve air quality?

What action will be taken when considering air quality in planning and land use?

- Develop, implement and maintain procedures to ensure that neighbouring councils are consulted on any proposed development likely to significantly affect air quality within their area.
- Ensure air quality is a material consideration when assessing planning applications and, where a significant deterioration in air quality is predicted, put in place conditions to mitigate the effects.
- Ensure that wherever possible all new developments are accessible by alternative means of transport, minimising the need to travel by supporting mixed development schemes.
- Require monitoring/modelling to be carried out to establish the potential impact of any development likely to have a significant impact on local air quality.

What further actions should the Council Pursue?

- Adoption of policies and procedures to ensure air quality is a consideration when formulating or assessing countywide initiatives.

What actions are the Council encouraged to take?

- Make use of the Nottinghamshire Sustainable Development Guide.
- Persuade 'large employers' to adopt a green commuter plan, especially through negotiation involving new developments.
- Development Control to produce 'Development Briefs' to assist applicants in determining relevant issues which require addressing as part of the application process.
- Assess all appropriate planning applications against a check list for sustainable development to determine, amongst other issues, its impact on air quality and other matters likely to affect air quality such as energy efficiency, green energy and transport. To encourage and advise developers about sustainability and environmental issues.

What actions are taken by Partner (or Stakeholders) organisations?

- **The Environment Agency** is a statutory consultee on planning applications within a 500 m radius of a site regulated by the EA under Integrated Pollution Prevention and Control (England and Wales) Regulations 2000. These are the major sites regulated by the Agency that can influence air quality. The Agency provides relevant advice to the planners to ensure any concerns about a development and a regulated process are identified and included within any relevant permission. We promote the use of a risk based approach to planning in relation to air quality, directing development to areas where the risk to human health and biodiversity can be minimised.
- **Primary Care Trusts** with support from the Health Protection Agency may become involved in planning applications that could have significant public health impacts to ensure that the potential impact on health is considered. This will include ensuring that health impacts as a result of adverse air quality have been taken into account.
- **The Highways Agency** The Highways Agency will participate in all stages of the planning process and will work alongside other organisations and developers to ensure national and regional aims and objectives can be aligned and met. DfT's Circular 02/2007 'Planning and the Strategic Road Network' sets out how the Agency will take part in the development of Regional Spatial Strategies (RSSs) and Local Development Frameworks (LDFs) from the earliest stages. It encourages the Agency and Regional Planning Bodies (RPBs) and Local Planning Authorities (LPAs) to work together to ensure effective participation in the preparation of regional and local sustainable development policy and sets out how the Agency will deal with planning applications. The Circular reinforces the agency's approach to mitigating the transport impacts of development. The HA will seek to apply the following solutions iteratively:
 - Impact avoidance through Sustainable Location
 - Impact Minimisation through realistic Travel Plans
 - Access management
 - Capacity enhancements as last resort and only where compatible with suitable principles.

The Highways Agency will therefore seek to ensure the mitigation of the environmental impact of new developments by the above means.

CASE STUDY



Planning Case Study

Air Quality is now a major consideration when it comes to Environmental Impact Assessments of a development, particularly when air quality Objectives may be compromised.

The retailers, Ikea, recently submitted plans to Broxtowe Borough Council to expand the outlet near Junction 26 of the M1.

On the recommendation of the Environmental Health division, a condition was attached to planning consent to review the impact the development would have on air quality objectives, ensuring neighbouring residents were not exposed to levels above the prescribed standards in the Air Quality Objectives.

This process was fully transparent and was successful in safeguarding the excellent air quality in the area.

Health and Education

Clean air is essential for our health, quality of life and the environment. The UK Government within its National Air Quality Strategy sets Objectives for eight main air pollutants that are known to harm human health and occur widely throughout the UK. These Objectives are health based and are underpinned by epidemiology and medical evidence.

For most people in good health, the concentration levels of the key pollutants in Nottinghamshire are unlikely to cause any serious health effect. However, on the rare occasion when pollution levels are high (e.g. during a pollution episode) some individuals may experience some discomfort such as eye irritation or coughing. Certain sensitive individuals who are more susceptible to respiratory disorders may feel the effects more acutely, or at lower concentration levels. These individuals include those who suffer from heart and lung disease, including asthma and bronchitis, especially young children and the elderly.

Councils and stakeholder partners can:

- work towards disseminating information on the links between health and the environment;
- support education on air quality and related topics;
- help individuals and organisations obtain information and take action. (e.g. developing workplace commuter plans, car sharing initiatives etc)
- encourage campaigns and strategies such as walking and cycling that not only enhance personal fitness and health but also contribute to improvements in air quality.



Nottinghamshire County Council provides advice, support and training events for teachers and schools on a range of issues related to environmental education and management. It also works with schools supporting them with:

- Eco Schools, an environmental management system for schools covering a range of areas including transport, energy and water management and healthy living. These areas are reinforced through activities; classroom work; and linked to the National Curriculum.
- The Healthy Schools Initiative supports schools, promoting the health and well-being of their school community; it covers 8 themes including physical activity and safety.
- School Travel Plans: A council team work with schools to implement School Travel Plans which aim to reduce traffic and related problems around schools by reducing car use and making it easier for children to find alternative ways of getting to school e.g. 'walking buses', promoting cycling.
- Energy Certification for Schools programme: The Council works across Nottinghamshire with the Newark and Sherwood Energy Agency supporting schools working on energy monitoring/reduction.

Further Resources Websites:

• Health effects of air pollutants.

DEFRA's Expert Panel on Air Quality Standards (EPAQS) and DH Committee on the Medical Effects of Air Pollutants (COMEAP) have published many reports that consider the health effects of pollutants

EPAQS:

<http://www.defra.gov.uk/environment/airquality/aqs/>

COMEAP:

<http://www.advisorybodies.doh.gov.uk/comeap/index.htm>

• Defra

<http://www.defra.gov.uk/environment/airquality/publications/airpoll/index.htm>
Air Pollution: *What it means to your health*, leaflet.

• DETR

Winter Smog Summer Smog, 1998
<http://www.defra.gov.uk/environment/airquality/publications/smog/index.htm>

• The UK Air Quality Information Archive

<http://www.airquality.co.uk/archive/index.php>

• The UK National Air Quality Strategy.

Department of Environment Food and Rural Affairs (2000). *National Air Quality Strategy, Working Together for Cleaner Air* and associated regulations and guidance.
<http://www.defra.gov.uk/environment/airquality/strategy/index.htm>

<http://www.lagmsupport.org.uk/>

• Eco Schools

<http://www.eco-schools.org/>

• Walk to School Initiatives

http://www.nottinghamshire.gov.uk/home/traffic_and_travel/roadsafety/roadsafety_schools/walktoschool.htm

<http://www.walktoschool.org.uk/site.htm>

• Safer Routes to School

http://www.nottinghamshire.gov.uk/home/traffic_and_travel/roadsafety/roadsafety_schools/saferoutestoschool.htm
Nottinghamshire County Council initiative

• Energy Certification for Schools

www.est.org.uk/schools

• Healthy Schools initiative

www.healthyschoolsnotts.org.uk

• **EMPAHSIS:** East Midlands Public Health
<http://www.emphasisnetwork.org.uk/>

Further reading

• WHO (2005)

Effects of Air Pollution on Children's Health and Development, A Review of the Evidence. European Centre for Environment and Health, Bonn.

• Department of Health

(DH) (1998)
Saving Lives: Our Healthier Nation - has been succeeded by
DH (2004) *Choosing Health: making healthier choices easier*

• East Midlands Development Agency

(EMDA) (2003)
Investment for Health, a public health strategy for the East Midlands
<http://www.emra.gov.uk/i4h/>

What actions can be taken to improve air quality?

What actions will be taken when considering Health and Education?

- Councils will review and assess air quality within their areas against national health based standards and Objectives. Where Councils identify that the standards and Objectives will not be met, Air Quality Management Areas (AQMAs) and action plans will be implemented with the aim of improving air quality to meet the required standard.
- Work with Primary Care Trusts, the Health Protection Agency and other health professionals through mechanisms such as Health Improvement Programmes and local Strategic Partnerships (LSPs) to raise awareness about poor air quality, the health effects, the sources of pollution and how to reduce emissions to the air.
- Actively promote awareness of measures to improve air quality.
- Council will produce annual reports of air quality assessments and monitoring data.

What actions should the Council Support?

- Promotion of defra's Air Pollution and Public Information Bulletin/Service.
- The promotion and encouragement of children to walk or cycle to school for both health and environmental benefits. Through programmes such as 'walk to school week', 'safer routes to school' and 'healthy schools initiative'.

What actions are Councils encouraged to take?

- Work with schools to promote the use of National Society Clean Air's air pollution teaching packs.
- Support and work with academia in carrying out research projects which affect air pollution in Nottinghamshire.

What actions are taken by Partner (or Stakeholders) organisations?

- **The Environment Agency** - The EA has a statutory regulatory duty to protect human health and the environment. We consider health implications in our decision making process and seek advice from other organisations as appropriate. A major challenge is making people aware of the health risks associated with pollution and how to place these in the context of other risks. This is particularly difficult when there is a level of uncertainty in the scientific knowledge underpinning regulatory decisions. We have recently produced a document Better Environment – Healthier People which clarifies our role and relationships with other organisations. It can be obtained from our website.
- **Primary Care Trusts and Health Protection Agency** -The HPA/ PCTs are willing to be consulted on and provide advice on air quality and related health issues. They will work with Local Authorities to raise awareness and disseminate information on air quality issues. The HPA will provide advice to Local Authorities in the investigation of pollution episodes with regard to impact on human health and communicate the results of these investigations to the PCTs.
- **Highways Agency** -The HA is committed to ensure that the road network within Nottinghamshire does not have a detrimental effect on people's health. The HA is working with local authorities to improve air quality in areas of congestion through the Local Transport Plans and action plans for Local Air Quality Management Areas.

Nottingham Health Action Team (NHAT):

The Nottingham Health Action Team (NHAT) promotes good health and tackles health inequalities through identifying and addressing the environmental causes of ill health. NHAT works across different sectors in Greater Nottingham and in 2003 it took on an additional economic role and contributes to the Sub Regional Strategic Partnership. Topic areas include - Food Initiatives, Affordable Warmth, Transport & Health Initiatives and Waste.

The Nottingham Health Action Team represents an integrated approach, which involves representatives from diverse organisations and perspectives including: a local MP, the East Midlands Public Health Team, Health Protection Agency, Nottingham Trent University, 4 Primary Care Trusts (Nottingham City, Gedling, Rushcliffe, Broxtowe & Hucknall); 6 local authorities (Nottinghamshire County, Gedling, Rushcliffe, Broxtowe, Ashfield and Nottingham City), NHS Trusts, private sector and voluntary sector.

The Health Initiatives budget has spent up to £60,000 per year supporting innovative projects which contribute to the protection and promotion of the health of Greater Nottingham residents by ensuring a safe, clean and sustainable environment and by identifying and addressing the environmental causes of ill health.

Energy Efficiency

Energy Efficiency

“Around £12 billion worth of energy is wasted in the UK every year.”

Increasing energy efficiency within industry, workspaces and our homes will result in a both long term financial savings and an improvement in air quality.

The UK government has committed taking action on climate change by reducing carbon dioxide emissions through the Kyoto agreement. The key to achieving this commitment is promoting a more energy efficient society. The overall demand for energy is likely to increase; therefore in order to accommodate this increase while reducing CO₂ emissions a number of changes will need to be made by:

- *Using energy more efficiently, such as using more efficient vehicles and equipment,*
- *Using energy from renewable sources such as solar, biomass or wind,*
- *Making clean and efficient use of fossil fuels such as coal and oil.*

To help achieve these aims the government has set a target that 10% of the UK electricity supplies will be generated from renewable sources by 2010. Obligations placed on the electricity supply companies together with some funding from the proceeds of the climate change levy is expected achieve this.

The way that energy is generated is changing. There is a movement away from conventional large scale power production towards smaller, local power plants, often to meet the needs of single company, with the option of exporting surplus to the national grid. A result of this the ability to use combined heat and power systems, therefore increased energy efficiency. Examples of such systems can be found at Boots plc and the Queen’s Medical Centre at in Nottingham, and British Sugar at Newark.



New Energy Efficiency Plant

During July 2006, Veolia Environmental Services, which has recently been awarded the County’s 26-year waste management contract, announced that Rufford Colliery, near Rainworth, is the proposed site for a new Energy Recovery Facility (ERF), which will provide energy from the incineration of waste, is one of the solutions proposed to manage the county’s waste.

Approximately 180,000 tonnes of residual waste left over after recycling & composting a year will be processed by the ERF. It is anticipated that in 2012, when the plant is fully operational, this will represent approximately 35% of the household waste in Nottinghamshire. The facility will produce up to 15MW of electrical energy, enough to power up to 15,000 homes, which will be fed into the National Grid.

The proposed facility will have a high visual and environmental specification. The modern facility will also be clean and safe. Any emissions will be within safety limits and be subject to tight legislative controls to ensure that any releases to atmosphere are properly managed. In addition the facilities operation will be subject to the requirements of a planning permission and the granting of a Pollution Prevention Control Permit from the Environment Agency, who will also act as an independent monitor of the facility’s operation.

<http://www.onyxgroup.co.uk/pages/newspressDirect.asp?articleId=1348>

Further Resources Website:

- **Defra web site**
www.defra.gov.uk/environment/climatechange/dat/energy-factsheet.htm
- **The Carbon Trust**
www.thecarbontrust.co.uk
- **Sherwood Energy Village**
www.sherwoodenergyvillage.co.uk
- **Nottinghamshire Agenda 21**
<http://www.nottinghamshire.gov.uk/home/environment/greenissues/climatechange.htm>

- **Energy Saving Trust**
www.est.org.uk
- **The Carbon Trust**
<http://www.thecarbontrust.co.uk/en/ergv>
- **The Energy Saving trust**
<http://www.est.org.uk>
- **The National Energy Foundation**
<http://www.nef.org.uk>
- **Grants finder**
www.est.org.uk/solar/

Further Reading:

- **The Department for Environment, Food and Rural Affairs**
<http://www.defra.gov.uk/environment/energy/index.htm>
- **Energy efficiency grants**
<http://www.direct.gov.uk>
- **Educational Resources**
www.think-energy.com/
- **Nottingham City Council**
http://www.nottinghamcity.gov.uk/sitemap/energy_efficiency_in_your_home
- **Nottinghamshire County Council**
<http://www.nottinghamshire.gov.uk/home/environment/greenissues/energy.htm>
- **Solar power grants for businesses**
www.saveenergy.co.uk/qid/

- **Climate Change**
www.bbc.co.uk/climate/evidence/index.shtml
- **Positive about wind power**
www.ves2wind.com/about.html
- **Carbon Calculator**
www.carboncalculator.com/

What actions can be taken to improve air quality?

What actions will Councils take to reduce energy consumption?

- Review their energy usage and put in place initiatives to improve energy efficiency where appropriate.
- Provide advice to the public and businesses about energy efficiency and building design, maintenance and insulation etc.
- Make energy efficiency an integral part of housing and building maintenance.
- Play an active role in the Local Authorities Energy Partnership.
- Promote home energy efficiency schemes.

What actions should Councils Support?

- Initiatives to encourage energy efficiency.
- Use of renewable energy in their own buildings.
- Energy demonstration projects.
- The use of renewable energy.

What actions are taken by Partner (or Stakeholders) organisations?

- **The Environment Agency** regulates numerous sites under The Pollution Prevention and Control Regulations 2000 (PPC) this legislation specifically requires installations to be operated in such a way that energy is used efficiently. In addition, energy efficiency is one of several considerations to be taken into account when determining Best Available Techniques for the prevention and minimisation of pollution. All installations falling under the scope of PPC shall meet a set of defined basic energy requirements for energy efficiency and must either participate in a Climate Change agreement or Trading Agreement with the UK government or through compliance with further permit specific requirements.

Primary Care Trusts and Health Protection Agency The HPA promotes within organisation initiatives to reduce the amount of energy and natural resources used. PCTs together with local authorities and the voluntary sector can work to alleviate fuel poverty by providing advice on grants for insulation and heating, home improvement schemes and raise awareness of energy efficiency.

- **The Highways Agency always** looks for initiatives and ways to reduce energy in its building and support networks.

Case Studies

• CHP at QMC

The Combined Heat and Power plant at the Queens Medical Centre, Nottingham was officially opened in February 1999. The efficiency of on-site energy generation provides a major overall reduction in the production of "greenhouse" gases. Combined with the massive addition to the site's existing standby generator capacity it will provide the added security of "business as usual" in the event of any external power disruption. The plant is projected to save the Trust around £350,000 per year.
Contact: Robert Cartwright, Estate Operation Manager, Tel 0115 924 9924 ext. 43642.

• Mine Gas Extraction for Power Generation

Coalgas (UK) Ltd. received planning permission in 1998 to extract methane from a disused mine shaft at the former Steeley Colliery near Worksop and used it to both generate electricity and to supply the adjoining Bakers fractory with gas from power.
Contact: Mr A.R. Barnes, Development Manager, Tel 01623 421642.

• Inland Revenue sets example

The recently relocated Inland Revenue Offices at Castle Meadow, Nottingham have won acclaim for their energy efficient features. The buildings favour natural daylight over electric lighting and, to this end, incorporate slatted balconies, back reflecting light shelves, and triple-glazed windows. The most notable feature is perhaps the glass stair towers which act as "solar chimneys" and provide natural, comfortable ventilation and heating. The building is connected to the Nottingham District Heating Scheme.
Contact: Sheila Garner, Inland Revenue Offices, Tel 0115 974 0058.

Industrial and Commercial

Industrial and Commercial

Emissions to atmosphere from industrial and commercial premises are legislated through the EU Integrated Pollution Prevention and Control Directive (IPPC). This directive primarily aims to ensure a high level of environmental protection and so Local Authority IPPC aims to prevent emissions and waste production and where that is not practicable, reduce them to acceptable levels. Local Authorities and the Environment Agency will be enforcing IPPC legislation to protect the environment as a whole, promote the use of clean technology, minimise waste at source, encourage innovation by leaving significant responsibility for developing satisfactory solutions to environmental issues with industry operators and to provide a one stop shop for administering Permits. IPPC also takes the integrated approach beyond the initial task of permitting, including compliance monitoring, permit reviews, variations, transfers, through to the restoration of sites when industrial activities cease.

LACORS Team Set up for Environmental Protection issues

LACORS' role is to support and co-ordinate local authority regulatory services in various areas. On 3 April 2006, LACORS launched a new team to deal with environmental protection policy issues. LACORS is a government central body created by the UK local authority associations.

The new team will work with all Local Authority Environmental Protection Services in England – both officers and elected members – to deliver service improvements through a more coordinated and informed approach. In addition to IPPC, LACORS work will include air, land, water and noise pollution. LACORS will be working closely with the LGA, the Improvement & Development Agency (IDeA) and defra to coordinate their collective efforts and ensure that the most important issues are dealt with satisfactorily and appropriate policy solutions are developed.

Case Study - Industry and Commercial Sherwood Forest Crematorium

Crematorium opened in January 2006,



Sherwood Forest is unique by virtue of its environmental excellence. It is the first crematorium in Britain to install equipment designed to protect against heavy metal pollution and mercury. These pollutants are key factors in the destruction of marine habitats and health land. Prior to being emitted to

atmosphere via an emission stack the gases from the Cremator pass through flue gas cooling and bag filtration system. This ensures the adequate removal of particles and contaminants from the flue gases. The facility has not only set new standards of client care for people across North Nottinghamshire but also for the future of the planet. It is one of the first crematoria that can truly call itself green with virtually no key pollutant emissions.

http://www.memoria.org.uk/sherwood_crematorium.htm

Further Resources Website:

- **Defra Web Site**

<http://www.defra.gov.uk>
Environmental Protection

Aim is to protect and improve the environment, and to integrate the environment with other policies across Government and in international forums.

- **LACORS**

<http://www.lacors.gov.uk>

- **Environment Agency Web Site**

<http://www.defra.gov.uk/environment/index.htm>

- **UK statutory instruments on the Stationary Website.**

<http://www.hmso.gov.uk>

Further Reading:

- **Industrial Air Pollution Control by Local Authorities**

<http://www.defra.gov.uk/environment/airquality>

- **General Guidance on PPC Regulation**

<http://www.defra.gov.uk/environment/ppc>

What actions can be taken to improve air quality?

What actions will Councils take to ensure a high level of environmental protection?

- Rigorously enforce legislation to control emissions of air pollutants.
- Encourage businesses to be more environmentally aware by adopting a risk based enforcement and charging regime.
- Assist and advise business in complying with relevant legislation.
- Be represented on the East Midlands LACOR's Team

What actions should Councils Support?

- Business initiatives to help them review their operations and try to reduce emissions of air pollutants from their activities.
- Business Environmental Statements which include policies that take account of air quality and the management of emissions of air.
- Business initiatives to adopt EMAS or ISO14001.
- Sustainable Business support groups.

What actions are Councils encouraged to take?

- Work with businesses to provide advice on sustainable development and, amongst other issues, ways to minimise emissions of air pollutants from their activities.

What actions are taken by Partner (or Stakeholders) organisations?

- **The Environment Agency** The Environment Agency will aim to ensure all business activities will have environmental concerns at the heart of their thinking and operations. The adoption of sustainable production and consumption practices will be the norm. Industries will exercise stewardship over their products to ensure that they are compatible with sustainable development. Risk and incentive-based charging schemes will reward reduced risks to human health and the environment and encourage effective environmental management.
- The public will use its purchasing and investment powers, and its opinion, to influence industrial performance in terms of human health and the environment. Through the public being better informed and involved, there will be greater general approval in the regulatory process and public confidence in it.
- To achieve this, the Environment Agency will work to simplify and improve the regulatory process for business, improve access to environmental information for business and the public, and promote the prevention of pollution and minimisation of waste in industry.
- **Primary Care Trusts and Health Protection Agency** The PCTs, as statutory consultees under the Pollution Prevention and Control Regulations 2000, considers (with support from the HPA) the potential impact on health from industrial installations that fall within these Regulations. The assessment of each installation will include consideration of any emissions to atmosphere and their potential impact on the health of human receptors.
- **Highways Agency** The HA are keen to encourage industry and commerce to improve air quality and would assist with comments on road infrastructure where appropriate.

Case Studies

EDF Energy operates West Burton and Cottam Power Stations two major Power stations in the Nottinghamshire area. Both sites have undergone recent investment to improve the emissions from the sites and significantly reduce the sulphur dioxide emitted as a result of their operation. A new Flue Gas Desulphurisation (FGD Plant) at the cost of £120 million has been installed at West Burton and commenced full operation in October 2005.

This will remove 92% of the sulphur dioxide emissions produced by the 2,000MW coal burning Power Station. This prevents around 90,000 tonnes of sulphur dioxide emissions each year. Equally Cottam Power station is currently halfway through a similar investment programme to install FGD treatment to dramatically reduce the amount of Sulphur Dioxide it emits.

EDF energy regularly updates the Nottinghamshire authorities on its activities and produces a yearly public document outlining its monitoring and emission programme.



Climate Change and Global Warming

Climate Change and Global Warming

Britain is at the forefront of action both against Climate Change and Global Warming to adapt to its inevitable consequences. The Government's 2003 energy white paper put climate change at the heart of the country's energy policy. In the white paper, the government reaffirmed its commitment to go beyond our Kyoto commitments in cutting emissions of greenhouse gases to 20 percent below 1990 levels by 2010. And it goes further, making Britain among the first industrialised countries in the world to embrace a long term target of a 60 percent cut in emissions compared to 1990 levels by mid-century.

Climate change is widely attributed to the emission of greenhouse gases (GHGs), the main one being carbon dioxide (CO₂) through the burning of fossil fuels. Others GHGs include methane (CH₄) and nitrous oxide (NO_x), which are of lesser concern. However nationally, approximately 90% of energy is derived from fossil fuels, and hence contributes to Climate Change and Global Warming.

The principal effects of Climate Change and Global Warming in the UK are likely to be seen with warmer, drier summers and warmer wetter, stormier winters. This may already be happening, with the hottest five years on record all being since 1997. 2000 and 2007 were the wettest year in the 20th century,

with severe floods in Nottinghamshire. This was reiterated in the Energy Review and the Climate Change UK programme both launched in 2006, which together set out the framework to enable the country to move in the right direction to meet the long-term challenges. By tackling energy consumption, it is possible to have the dual benefit of improving air quality and reducing GHG emissions. In fact many of the actions suggested in other chapters of this document, e.g. energy efficiency and transport, can help to reduce GHG emissions.

Defra has launched a campaign on tackling climate change. The Act On CO₂ campaign, which began on 9 July 2007, includes TV, press and online advertising.

The advertising aims to introduce the concept of a personal carbon footprint, and to encourage behaviour change to help reduce personal carbon emissions. As part of the campaign the government has developed the Act On CO₂ calculator to help people calculate their carbon footprint and find lots of ways to make it smaller. To find out yours visit

www.direct.gov.uk/ActOnCO2



Forces for change

International

- As a signatory to the Kyoto Protocol, the UK is committed to reducing GHGs by 12.5% by 2012 (using 1990 levels as a baseline)

National

- UK has agreed a domestic target to reduce CO₂ emissions by 20% by 2010 (using 1990 levels as a baseline)
- UK Energy White Paper (2003) suggests that 60% reductions are required by 2050 if global temperature increases are to be halted

Local

- Effects of climate change will be felt at a local level, therefore local action is necessary
- Nottinghamshire Agenda 21 has adopted interim targets towards a 60% CO₂ reduction by 2050 and carbon neutrality by 2100
- Nottingham Declaration on Climate Change requires signatures to join with their community to tackle the causes and effects of climate change.

Further Resources Website:

- National Society of Clean Air and Environmental**
<http://www.nasca.org.uk/pages/index.cfm>
- Nottingham Declaration**
<http://www.nottinghamdeclaration.org/>
- defra**
www.defra.gov.uk/environment/climatechange/index.htm
- Carbon Trust**
www.thecarbontrust.co.uk
- Energy Saving Trust**
www.est.org.uk
- Climate Heroes**
www.climatechallenge.gov.uk/whats_being_done/projects/climateheroes/default.aspx

- National Energy Foundation carbon calculator**
www.nef.org.uk/energyadvice/co2calculator.htm
- Climate Care carbon calculator** (aimed at individuals - with option to offset emissions)
<http://www.climatecare.org/404/>
- UK Climates Impact Programme**
<http://www.ukcip.org.uk/>
- The Tyndall Centre for climate change research.**
<http://www.tyndall.ac.uk/index.shtml>

Further reading

- Department of Health (2001)**
Health Effects of Climate Change in the UK
<http://www.dh.gov.uk/en/AdvanceSearch/Result/index.htm?searchTerms=the+effects+of+climate+change>
- Department of Health (2004)**
Heat wave Plan for England.
<http://www.dh.gov.uk/assetRoot/04/11/57/33/04115733.pdf>
- Health Protection Agency** (Reviewed July 2003).
Provisional guidelines on the public health implications of flooding.
http://www.hpa.org.uk/infections/topics_az/flooding/menu.htm

Nottinghamshire Agenda 21

Climate Change in Nottinghamshire: Options for Mitigation and Adaptation
<http://www.nottinghamshire.gov.uk/climatechange/finalreport.pdf>

A technical study undertaken by Dr. Brian Waters, which outlines what climate change could mean to Nottinghamshire and how we might best respond Climate Change – Framework for Action in Nottinghamshire, Nottinghamshire Agenda 21 (2005)

What actions can be taken to improve air quality?

What actions will Councils take to reduce energy consumption?

- Reduce CO₂ emissions caused by energy use in Council buildings
- Purchase low carbon green electricity
- Making a public commitment to tackling climate change and Global Warming by signing the Nottingham Declaration on Climate Change (2005) – all local authorities in the county are now signatories to this Declaration which has nationwide status and is endorsed by the government. It requires each signatory authority to prepare a plan with the local communities to address the causes and effects of Climate Change and Global Warming.
- Promote awareness of Climate Change and Global Warming through the “Climate Heroes” campaign (see web link pg22)
- Promote energy efficiency through the Local Authorities Energy Partnership
- Improving standards of new builds and promote the use of the Sustainable Developer Guide.
- Promote green travel plans
- Promote the use of renewable energy and energy efficiency measures

What actions should Councils Support?

- Promotion of *Climate Change - Framework for Action in Nottinghamshire*
- Encourage organisations and sectoral groups in Nottinghamshire to sign up to the vision for the county contained in *Climate Change – Framework for Action in Nottinghamshire* and to develop their own action plan in support of the vision
- Promotion of sustainable energy and climate change objectives through community-wide strategies and land use plans
- Promote the initiatives set out in the Local Transport Plan to reduce the traffic growth

What actions are Councils encouraged to take?

- Sign up to the vision for the County contained in *Climate Change – Framework for Action in Nottinghamshire*
- Create a Nottinghamshire Green House Gas emissions inventory as part of a wider pollution emissions inventory
- Adopt a council-wide strategy on climate change, global warming and sustainable energy
- Integrate climate change and global warming initiatives across all service areas in local authorities
- Adopt a ‘whole-life’ approach to investment, including revolving funds which pay upfront for sustainable energy measures, and then reinvest the savings in further projects

What actions are taken by Partner (or Stakeholders) organisations?

- **Environment Agency** Limiting and adapting to climate change is one of the nine themes in the Environment Agency’s corporate plan. The Environment Agency will contribute to meeting the Government’s Objectives through our role of regulating pollution from industry and waste disposal. We are responsible for regulations that cover 40 percent of UK emissions of greenhouse gases. We will also research and publicise the likely effects of climate change and global warming, helping public and private bodies alike to meet the challenge. And we have specific responsibility for addressing likely impacts as we manage the country’s flood defences and water resources.
- **Health Protection Agency** The main impacts of climate change on health are likely to be through extreme weather events, changing patterns of infectious disease and increased exposure to UV radiation. Therefore the government, the HPA and PCTs need to anticipate and prepare for the long-term effects of such change.

For example, through the *Heatwave Plan for England* the Department of Health (DoH) sets out responsibilities of the HPA; Met Office; DoH; Strategic Health Authorities; Primary Care Trusts; Local Authorities; and Regional Directors of Public Health, should such an event occur. The HPA is responsible for surveillance of heat-related illness (e.g. through monitoring of calls to NHS Direct and GP consultations) and reporting to DoH. Primary Care Trusts will work with Councils to issue advice and support to people identified as ‘at-risk’ from extreme heat and occupants and staff of residential and nursing homes.

Case Studies

Attenborough Nature Centre
Attenborough Nature Centre has been designed with its own renewable energy resources that will meet the annual energy needs of the building in normal use, thus providing zero net Green House Gas emissions. Specific features include: high levels of insulation, photovoltaic panels to provide electricity, a “heat-pump” to provide heating and hot water, roof-mounted hot-water solar panels and window sizes designed to provide good levels of daylight.

Contact: Philip Songhurst,
Centre Manager
Tel: 0115 972 1777
www.attenboroughnaturecentre.co.uk/building%20brochure.pdf

Energy recovery from waste disposal

Five landfill sites in Nottinghamshire operate energy recovery schemes. At these sites in Daneshill, Sutton, Dorket Head, Bilsthorpe and Burntstump, landfill gas (mainly methane) is collected and burnt to generate electricity. The landfill gas is created as waste decomposes naturally, so energy recovery not only reduces methane emissions - one of the more powerful Green House Gases but also reduces the need for energy derived from burning fossil fuels. Landfill gas sites in Nottinghamshire have a capacity of around 7 MW of renewable energy (2003 data).



Domestic Sector

Domestic Sector

The Clean Air Acts of 1956 and 1968 were introduced to deal with the smogs (a combination of smoke and fog) of the 1950's and 1960's, which were caused by the widespread burning of coal for domestic heating and industry without any controls. In 1956, the London smog was blamed for the premature death of 12,000 people in the UK.

Clean Air Act

Under the Clean Air Act, local authorities may declare the whole or part of the district to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area unless it is an "exempt" appliance. The Secretary of State for Environment, Food and Rural Affairs has powers under the Act

to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. Therefore, it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "unauthorised" fuels) have been exempted by an Order made and signed by the Secretary of

State or Minister in the devolved administrations. Your local authority is responsible for enforcing the legislation in smoke control areas and you can contact them for details of any smoke control areas in their area. They will also have details of the fuels and appliances, which may be used. The whole districts of Ashfield Rushcliffe and Mansfield are designated smoke control areas.



The London Smogs of 1957

Domestic Bonfires

It is estimated that garden waste accounts for 20% of all household rubbish. In order to reduce the waste that goes into the bin, many people often have bonfires to burn their garden waste.

There are no specific laws governing the use of bonfires although under the Environmental Protection Act, a statutory nuisance includes "smoke, fumes or gases emitted from premises so as to be prejudicial to health or a nuisance".

Not only is a bonfire likely to cause nuisance to neighbours; it also has a detrimental effect on air quality.

There are other methods of getting rid of garden waste other than burning. Your council will have a recycling point where you can take garden waste or you can compost it yourself.

A number of Councils provide their residents with a variety of bins for separating household, recyclable material and garden waste. Some Council's will also collect garden waste and send it for composting for either use in agriculture eliminating the need for chemical fertilizers or processed for domestic resale.



Further Resources Website:

- **Clear Skies Renewable Energy Grants**
<http://www.clear-skies.org/>
- **Department of Health, Keep Well Keep Warm 2005/2006**
http://www.dh.gov.uk/PolicyAndGuidance/HealthAndSocialCareTopics/HealthAndSocialCareArticle/fs/en?CONTENT_ID=4076849&chk=N3IuFO

- **National Society for Clean Air and Environmental Protection**
<http://www.nasca.org.uk>
- **UK Smoke Control Areas**
<http://www.uksmokecontrolareas.co.uk/>
- **Air Pollution and Human Health**
NSCA 1999 (National Society for Clean Air and Environmental Protection)

- **Department of Health: Winter Warmth Advice Line** 8am – 8pm Monday to Friday; FREEPHONE 0800 085 7000 TEXTPHONE 0800 085 7857
- **Air Quality in the UK** defra 2003 (Department for Environment Food and Rural Affairs)

- **Fireworks!** NSCA 2004 (National Society for Clean Air and Environmental Protection)
- **The UK National Air Quality Archive**
<http://www.airquality.co.uk>
- **Air Pollution Laws** NSCA 2003 (National Society for Clean Air and Environmental Protection)

- **Indoor Air Pollution** NSCA 1991 (National Society for Clean Air and Environmental Protection)
- **UK Air Pollution** Netcen National Environmental Technology Centre

What actions can be taken to improve air quality?

What actions will Councils take to reduce energy consumption?

- Enforce legislation to control emissions to air from chimneys of domestic properties and bonfires
- Assist and advise householders in complying with relevant legislation
- Encourage reduction and recycling of household waste
- Promote home composting of garden waste
- Encourage domestic households to remove polluting appliances

What actions should Councils Support?

- Energy efficiency in domestic properties
- Advise members of the public with bonfire etiquette
- Advise members of the public on appliances and fuel in smoke control areas
- Promote bins for garden waste – the council can recycle garden waste
- Promote compost bins for residents of Nottinghamshire – a compost converter can be purchased from Nottingham County Council for a few pounds.
- Advise and support safe bonfire night evenings, reducing the need for personal bonfires on bonfire night

What can Nottinghamshire residents do to help?

- Use only authorised fuels in smoke control areas
- Use exempted appliances in smoke control areas
- Don't have bonfires and compost garden waste
- Attend organised bonfire night evenings rather than holding their own event
- Make use of renewable energy
- Buy only Energy Efficient Appliances

Highways Agency

As part of our influencing travel behaviour work we are giving priority to those sites with known air quality issues. Smaller schemes are also being given enhanced priority if they are forecast to deliver improvements in air quality.

Case Studies



Whilst a bonfire is an English tradition, it is estimated that 14% of total UK dioxin emissions are produced on Bonfire Night.

The bright colours and effects in fireworks are produced by a cocktail of chemicals. Fireworks emit light, heat and sound energy along with carbon dioxide and other gases and residues. The exact emissions will vary depending on the firework, but as gunpowder is the main component sulphur compounds are emitted, along with small amounts of particulates (PM₁₀), metal oxides and organic compounds.

Your council will have details on organised safe bonfire evenings, which you and your family can enjoy, reducing the need for you to have your own bonfire and fireworks display, which will have a positive effect on air quality.

Information and Services

Information and Services

“Information does not necessarily lead to increased awareness, and increased awareness does not necessarily lead to action. Information provision, whether through advertisements, leaflets or labeling, must be backed up by other approaches.” Demos & Green Alliance, 2003

The information and services provided by all of the partner organisations form a key role in the implementation of the Air Quality Strategy for Nottinghamshire. The provision of relevant and up to date information for stakeholders and the public provides a platform for decision making on the impact of Air Quality within the County. This can influence organisations and the public to look at the impact they have on air quality and make decisions to reduce this for the benefit of all.

Changing behaviour is one of the main obstacles for the reduction in the impact we all have on Air Quality within Nottinghamshire. The actions based in this strategy along with effective communication and provision of information can work towards achieving effective changes in behaviour. With the continual advancements in technology more and more information is being provided that is accessible to a growing number of the population. It is important that all organisations are aware of the need to ensure we are aware of what information is needed and also how this is delivered.

Consultation with stakeholders helps to understand what information and services are required and whether we are achieving the aims and objectives within this strategy document.

Further Resources Website:

- **Office of Public Sector Information**
<http://www.opsi.gov.uk/stat.htm>
Full text of Statutory Instruments
- **Environment Agency Web Site**
<http://www.defra.gov.uk/environment/index.htm>
- **NSCA**
<http://www.nasca.org.uk/pages/index.cfm>
National Society of Clean Air and Environmental Protection.
- **DEFRA – Air Quality Web Site**
<http://www.defra.gov.uk/environment/airquality/index.htm>
This web site has details of developments to control and manage ambient air quality across the UK, including European and international air quality issues.

- **The National Air Quality Information Archive**

<http://www.airquality.co.uk/archive/index.php>
This site provides up-to-date, comprehensive, detailed information on air quality. Information is available on the 24 hour forecast of air pollution levels within Nottingham and the East Midlands. The site also provides considerable information on national air quality monitoring.

- **National Society of Clean Air and Environmental Protection**

<http://www.nasca.org.uk/pages/index.cfm>
This is an environmental protection charity that brings together organisations across the public, private and voluntary sectors.

Further reading

- **University of West England – Air Quality Review and Assessment Website**

<http://www.uwe.ac.uk/aqm/review/links.html>
This site is to assist Local Authorities in their duties for the reviews and assessments of air quality. It provides guidance for best practice

- **Cassella Stanger Action Plans and modelling help desk**

<http://www.stanger.co.uk/actionplan>
http://www.casellastanger.com/modelling_helpdesk
This site provides help and assistance to Local Authorities in the development of Air Quality Action Plans and for undertaking modelling.

- **Care4air**

<http://www.care4air.org/>
Care4Air is a good example of a partnership between the four South Yorkshire local authorities and South Yorkshire Travelwise. Its aims are to highlight what is happening in the region on air quality issues.

- **Ashfield District Council**

<http://www.ashfield.dcc.gov.uk/ccm/navigation/environment/pollution/air-pollution/monitored-air-pollutants/>

- **Bassetlaw District Council**

http://www.bassetlaw.gov.uk/index/environment/environment_and_health_services/pollution.htm

- **Broxtowe Borough Council**

<http://www.broxtowe.gov.uk/index/environment/air-pollution/pollution-air.htm>

- **Gedling Borough Council**

<http://www.gedling.gov.uk/index/en-home/pe-poll-home/pe-poll-aqm.htm>

- **Mansfield District Council**

<http://www.mansfield.gov.uk/index.aspx?articleid=201>

- **Newark & Sherwood District Council**

<http://www.newark-sherwooddc.gov.uk/pp/gold/viewGold.asp?ID=2031>

- **Nottingham City Council**

<http://www.nottinghamcity.gov.uk/sitemap/environment/pollution/air-pollution/air-quality.htm>

- **Rushcliffe Borough Council**

<http://www.rushcliffe.gov.uk/doc.asp?cat=9441>

What actions can be taken to improve air quality?

What actions will Councils take to improve information and services?

- Consult the public, industry and other organisations on reviews and assessments of air quality, action plans to improve Air Quality Management Areas and local air quality strategies.
- Provide information for the public and other organisations on air quality monitoring results undertaken by each Authority.
- Maintain public registers for the Integrated Pollution Prevention and Control regime, containing all relevant documents for the control of air emissions from Permitted Installations.
- Liaise with partner organisations within this framework agreement to investigate regional air pollution episodes and mitigate against any health or environmental effects.

What actions should Councils Support?

- Consultation on air quality through local Groups.
- Initiatives to obtain feedback from the public and industry on the methods used by local authorities to promote improvements in air quality.
- Provision of information and advice to the public and to other organisations to assist them in adopting initiatives for reducing their impact on air pollution, such as sustainable transport plans, abatement technology, energy saving schemes, renewable energy sources, climate change strategy development and EMAS.

What actions are Councils encouraged to take?

- Publish information on air quality on a web site.
- Publish easy to read and easy to understand air quality information on a web site for Nottinghamshire.
- Procurement of the same monitoring services across the County.

What actions are taken by Partner (or Stakeholders) organisations?

Environment Agency

- The Pollution Inventory (PI) is a database of 170 substances emitted to air, and water from UK industrial installations, activities or plants regulated by the Agency. The emissions data is reported annually as a mass emission from individual sites if greater than a specified threshold and is made publicly accessible on the Internet. The main objectives of the PI are to:
 - provide the public with easily accessible information about pollution from industrial and other sources in their local area and nationally;
 - help environmental regulators to protect the environment;
 - help the Government to meet national and international commitments and obligations for emissions reporting.
- As a minimum, in areas where an EU standard is exceeded, we will ensure that the activities we regulate do not make a significant contribution to poor air quality. We will also make our contribution to the achievement of the UK air quality Objectives.
- The Pollution Inventory web site (www.environment-agency.gov.uk/pi) provides general and sector specific guidance, available via the 'Reporting to the PI' link. The web site also provides a number of basic modelling tools, including a package for sewage treatment works and electronic tools to help landfill operators estimate leachate and gaseous emissions. There is also an oil estimator tool to assist in estimating emissions from waste oil treatment processes.

Primary Care Trust and Health Protection Agency

- The HPA/ PCTs are willing to be consulted on and provide support on air quality and related health issues.
- The HPA/ PCTs will work with local authorities to raise awareness and disseminate information on air quality issues and pollution episodes to the general public and more sensitive individuals.
- The HPA will provide support to Councils in the investigation of pollution episodes with regard to impact on human health.

Highways Agency The Highways Agency is committed to provide simple and clear information to the public on issues relating to the road network, improvements or expansion.

Case Study

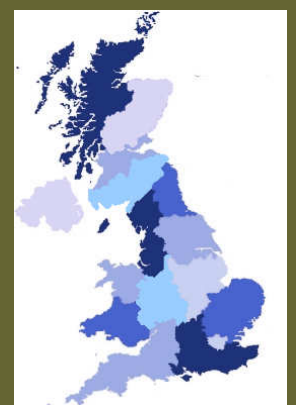


The National Air Quality Archive provides information on the levels of air quality throughout the country and up to date forecasts from a national network of real time monitoring sites. Information can be obtained locally for East Midlands and Nottingham by use of an interactive map of the country.

The forecast predicts the level of air quality in 10 bandings in 4 categories, 'Low', 'Medium', 'High' & 'Very High'. Both hourly and weekly monitoring results are provided for each of the national monitoring sites.

To access the information log onto:

<http://www.airquality.co.uk/archive/index.php>



Central Government and European Activities

Central Government and European Activities

There is a number of European and National policies that are expected to contribute to improving air quality over the next few years. These include tighter emission standards for new vehicles and additional controls over certain industrial processes. Some of the relevant policies are summarised below:

European and national policies to reduce pollution

Policy	Summary
Air Quality Framework and Daughter Directives	The Framework Directive establishes the principle that the European Union can set limit values for specific pollutants
Auto Oil programme	All new vehicles must comply with stringent emission standards. There are also controls over fuel quality, which also reduces emissions
Acidification strategy	This is a strategy which aims to reduce areas at risk of acid rain by reducing emissions of SO ₂ , NO _x , and ammonia. It consists of: A Directive which limits the sulphur content of liquid fuels Emission limits for new large combustion plant and a national limit for total SO ₂ emissions from existing plant.
EC Solvents Directive	This aims to reduce emissions of volatile organic compounds from certain industrial installations
Integrated Pollution Prevention and Control Directive	This limits emissions from certain industrial installations, requiring them to take steps to ensure that EC Objectives are met. Many of these processes are already controlled under national legislation (Pollution Prevention and Control Act 1999)
UNECE convention on long range transboundary air pollution	This aims to reduce the impact of transboundary pollution from one country to another by requiring emission reductions. It covers heavy metals, including cadmium, lead and mercury as well as some of the pollutants with Objectives in the national air quality strategy.
Planning framework	The land use planning system and the transport framework are expected to have regard to the national air quality strategy.

Although air quality is expected to improve as a result of these initiatives, local action will still be necessary to reduce pollution to meet the levels set in the Government's air quality Objectives and in any event the authorities in Nottinghamshire are always looking for ways to improve air quality.

Further Resources

Website:

- **Climate Change**

<http://www.climatechallenge.gov.uk>

- **defra**

<http://www.defra.gov.uk>

- **EUROPA**

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

Further reading

- **defra**

Climate Change: The UK Programme 2006. Her Majesty's Stationary Office

- **defra**

Impacts of Climate Change: Implications for DEFRA 2003.

- **EURPOA.**

Environment 2010 : Our Future, Our Choice

What actions can be taken to improve air quality?

What actions will Councils take?

- Respond to relevant consultations which could affect local air quality in Nottinghamshire.
- Lobby Government to support integrated public transport systems and initiatives in Nottinghamshire.
- Support the National Society for Clean Air and other environmental groups where their policies are considered appropriate.

What actions should Councils Support?

- New legislation and guidance to control emissions to atmosphere from all sectors of the community in a sustainable manner.
- Action and initiatives to remove gross vehicle polluters and those without a MOT from roads.
- Policies to increase tax incentives for smaller more fuel efficient vehicles and for the use of cleaner fuels.
- National campaigns which raise awareness about poor air quality.

What actions are Councils encouraged to take?

- Promote national campaigns which raise awareness about poor air quality and what to do about it.

What actions are taken by Partner (or Stakeholders) organisations?

- **Primary Care Trust and Health Protection Agency** will work closely with local authorities and their partners to ensure effective consultation as new European and Nation policies and environmental legislation are introduced.
- **Highways Agency** - The HA have recognised that co-operation between the Agency and other interested parties is central to the success of a fully integrated transport system - Real change can only be delivered if organisations work together to reach a common understanding, whether the partnership is formal or informal, or is at a national, regional, local or project-specific level.

Case Studies

M1 Widening



The Highways Agency proposes to improve by widening and junction works approximately 50 miles (85km) of the M1 between Leicester (Junction 21) and Chesterfield (Junction 30). This includes a stretch of the M1 Motorway which passes through Nottinghamshire

The scheme is proposed to be undertaken in two phases:
Contract 1: works within the existing highway boundary to enable early congestion relief between Junctions 25 to 28; and Contract 2: the remainder of the improvement works between Junctions 21 and 30 including works at junctions, link roads and crossings that require additional land take.

Air quality impacts have been assessed in accordance with Volume 11, Section 3, Part 1 of the Design Manual for Roads and Bridges (DMRB). This document provides a three-stage appraisal methodology, using screening and detailed modelling as and where appropriate for comparison with the relevant UK air quality standards and guidelines.

The forecast concentrations indicate that the effect of the proposals on local air quality would largely be minor to negligible. Most receptors across the areas assessed experience either no increase in pollutant concentrations or a minor increase between the 2010 Do Minimum and Do Something scenarios. All national Objectives and EU limit values are predicted to be met in the relevant years both with and without the proposals in place. Further information can be found in the full Environmental Statement



Nottinghamshire Environmental Protection Working Group

Local Authorities

Ashfield District Council

http://www.ashfield-dc.gov.uk/air_quality/index.shtml

Bassetlaw District Council

http://www.bassetlaw.gov.uk/index/environment/environment_and_health_services.htm

Broxtowe Borough Council

http://www.broxtowe.gov.uk/index/enviro/environ_pollution/pollution_air.htm

Gedling Borough Council

http://www.gedling.gov.uk/index/env-home/pe-poll-home/pe_-_pest_dog_pollution_control-aqm.htm

Mansfield District Council http://www.mansfield.gov.uk/env_menu/env_ehmenu/env_airquality.htm

Newark & Sherwood District Council

<http://www.newark-sherwooddc.gov.uk/pp/gold/viewGold.asp?ID=2031>

Nottingham City Council

http://www.nottinghamcity.gov.uk/sitemap/environment/pollution/air_pollution/air_quality.htm

Nottinghamshire County Council

<http://www.nottinghamshire.gov.uk/>

Rushcliffe Borough Council

<http://www.rushcliffe.gov.uk/doc.asp?cat=9441>

Partners

The Environment Agency

The Environment Agency are responsible for looking after the environment and making it a better place for now and future generations. Your environment is the air you breathe, the water you drink and the ground you walk on. Working with business, Government and society as a whole, the EA are making the environment cleaner and healthier.

Health Protection Agency

An independent body that protects the health and well-being of everyone in England and Wales. The Agency plays a critical role in protecting people from infectious diseases and in preventing harm when hazards involving chemicals, poisons or radiation occur. They additionally prepare for new and emerging threats, such as a bio-terrorist attack or virulent new strain of disease.

Primary Care Trust

Free-standing statutory bodies responsible for delivering better health care and health improvements to their local area. They directly provide a range of community health services (such as general practitioner (GP), dentist, optician, NHS walk-in centres, NHS Direct etc) and work with local authorities and other agencies that provide health and social care locally to make sure a community's needs are met.

Highways Agency

The Highways Agency is responsible for managing, maintaining and improving the strategic road network in England on behalf of the Secretary of State for Transport. This public asset is worth over £72 billion and provides a vital service to commerce and industry and to the lives of individuals and communities.



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Statutory Officers Report for Health and Wellbeing Board

Corporate Director of People

November 2019

Corporate Director for People

As Alison mentioned in her last (and final update), I was successfully appointed as the Corporate Director for People.

Most of you will already know me as the Director for Adult Social Care. I came to Nottingham City Council in March 2018, initially to lead the Adult Social Care Transformation Programme so I have enjoyed working as part of the Children's and Adults team over the past 18 months

The Corporate Director for People has quite a broad remit and in addition to a wider corporate strategic role for all citizens, the role is accountable for the statutory requirements of the Director of Children's Services, Director of Adult Social Services and Director of Public Health.

I look forward to continuing to work with you all.

City reaches landmark achievement with latest 'Good' school

Pupils at Berridge Primary were celebrating more than just the start of the new academic year: their school has improved its Ofsted rating to reach the 'Good' standard. An inspection at the school in Hyson Green found the primary has taken all of the steps needed to move up from the previous 'Requires Improvement' rating in November 2017.

It means that all primary schools run by Nottingham City Council are now judged to be 'Good' or 'Outstanding' by Ofsted. Inspectors found that the role of the Nottingham Schools Trust had played a role in the improvement.

Read more here: <http://www.mynottinghamnews.co.uk/city-reaches-landmark-achievement-with-latest-good-school/>

Youth Justice Service Inspection

On Friday 25th October, we received notification that the Nottingham Youth Offending Service will be subject to a full joint inspection commencing Monday 18th November. The Inspection will take place over three weeks and will focus on 3 domains:

Domain 1: Organisational Delivery

- Governance and leadership
- Staff
- Partnerships and Services
- Information and facilities

Domain 2: Court Disposals

- Assessment
- Planning
- Implementation and delivery
- Reviewing

Domain 3: Out of Court Disposals

- Assessment
- Planning
- Implementation and delivery
- Joint working

The full Joint Inspection involves scrutiny of all services/partners, which impact upon children at risk of offending or re-offending.

Inspection frameworks can be found [here](#).

Early Years Peer Challenge

Between 14th – 18th October, the Local Government Association's (LGA) Peer Challenge programme visited Nottingham. A team of five peers spent four days in Nottingham, focussing on speech, language and communication in the early years of a child's life (0–5). The Peer Challenge is part of the DfE's [Unlocking Talent, Fulfilling Potential: a plan for improving social mobility through education](#) programme.

The peer team spent the first three days of their time in Nottingham meeting with individuals and teams, observing practice in action at venues around the city and hosting workshops with key stakeholders, focussing on four key lines of enquiry (KLOE).

The team highlighted some strengths:

- Work is underway to support school readiness across the EY system.
- Strong leadership at all levels – political, and managerial
- Acknowledgement of need for a City wide speech and language strategy

And some areas for consideration:

- Opportunity to develop a partnership commissioning arrangements within the context of recent NHS changes
- Mechanisms for sharing good practice e.g between PVI's and schools
- A need to develop a citywide early years strategy

The full report will be issued by the end of November and the Peer Review team will be back within 6 months to support with any progress made.

Catherine Underwood
Corporate Director for People
(November 2019)

**Health and Wellbeing Board
Forward Plan 2019/20**

Meeting Date	Agenda Item	Lead Officer
29 January 2020	Themed Discussion: 1 st Draft of the Health and Wellbeing Strategy 2020 onwards	Uzmah Bhatti (NCC)
	Employment and Health	Vicki Dyer (DWP)
25 March 2020	Themed Discussion: Sign-off and launch of the Health and Wellbeing Strategy 2020 onwards	Uzmah Bhatti (NCC)
	IICSA Action Plan progress update	Helen Blackman (NCC)
	Violence Prevention	Alison Challenger (NCC)

Regular/recurring agenda items:

- **Integrated Care Partnership update**
- **Joint Strategic Needs Assessment: New Chapters update**
- **Board Member updates**
- **The Forward Plan**
- **The Action Log**
- **Citizens' Questions**

Submissions for the Forward Plan should be made to Adrian Mann (Nottingham City Council – Constitutional Services, adrian.mann@nottinghamcity.gov.uk, 0115 8764468), for agreement by the Chair.

NB: Report authors MUST discuss their reports/presentations with Alison Challenger (Nottingham City Council – Director of Public Health, alison.challenger@nottinghamcity.gov.uk, 0115 8765105) before drafting their submission to the Board meeting.

Items submitted for scheduling on the agenda:

Proposed Agenda Item	Lead Officer and Timeline
Children's Health and Wellbeing	
Domestic and Sexual Violence Services	
Delayed Transfers of Care	
Joint CCG/NCC update on the NHS Long Term Plan	
Health in all Policies Policy	