

# Ipswich Borough Council Local Plan Review

## Topic Paper: Air Quality, Transport and Green Infrastructure – Addendum August 2020

Evidence on the integration of policies for air quality, transport and green infrastructure

(Original paper published January 2019 for the regulation 18 stage preferred options consultation)



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## **Air Quality, Transport and Green Infrastructure – Addendum August 2020**

*An addendum to this topic paper has been provided, to signpost the updated evidence in support of these topics submitted alongside the Final Draft Local Plan. The original text has only been amended to provide factual updates, such as the stage the plan process has reached, and refer to the current 2019 National Planning Policy Framework, for clarity.*

### Introduction

1. This topic paper brings together an overview of the connections between some different elements of local plan and other Council policies. Bringing them together allows the articulation of a common aim. To help us live a better, healthier, life in our town with a reducing reliance on the private car for our transport between places of residence, work and recreation.

### What the Council is doing

2. The Council is currently preparing a review of its adopted Core Strategy and Policies Development Plan Document (DPD) (February 2017) and Site Allocations and Policies (incorporating IP-One Area Action Plan) DPD (February 2017). These documents form the Council's Local Plan, which guides future development in the Borough. The Council will prepare these documents to align them with those of adjoining Planning Authorities, which also sit within the Ipswich Housing Market Area.
3. Draft preferred options versions of the two plans were published for informal public consultation between 16th January – 13th March 2019, under regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012 ('the Regulations').
4. Final Draft versions of the two plans were published for formal public consultation between 15th January – 2nd March 2020, under regulation 19 of the Regulations. They were submitted to the Secretary of State on 10th June 2020.
5. The emerging Core Strategy and Policies DPD ("the Final Draft Core Strategy") will replace the adopted Core Strategy and Policies DPD review when adopted (anticipated in 2021). The emerging Site Allocations and Policies (incorporating IP-One Area Action Plan) DPD ("the Final Draft Site Allocations Plan") will replace the adopted Site Allocations Plan when adopted (anticipated in 2021).
6. The Council has a duty under the Environment Act 1995; Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance, to regularly review and assess air quality and to determine whether or not the air quality objectives are likely to be achieved. Where these objectives are either not or not likely to be met, local authorities have a duty to designate affected areas as Air Quality Management Areas (AQMAs) and develop and implement an Air Quality

Action Plan (AQAP). Ipswich has 5 AQMAs. At the time of drafting this topic paper, the Council has prepared a five-year AQAP which will be presented to Council Executive in February 2019 (update: the AQAP was adopted). The Government have also recently published their new Clean Air Strategy 2019 and proposed a new Clean Air (Human Rights) Bill (HL Bill 118) (1). As the AQAP is a live document, any developing changes in national policy deemed to influence the Council's approach to improving air quality through the AQAP within the five-year period will be considered, with the AQAP being amended accordingly.

7. In addition to the above, the Council gives consideration to the guidance published by Environmental Protection UK and the Institute of Air Quality Management "Land-Use Planning & Development Control: Planning for Air Quality" (2) when commenting on planning applications with regards to air quality.

#### National Planning Policy Framework – Plan Making

8. The National Planning Policy Framework (NPPF) was introduced in March 2012 following the introduction of the Localism Act in November 2011. The NPPF was revised in July 2018 (and again February 2019), implementing reforms announced previously through the Housing White Paper, the planning for the right homes in the right places consultation and the draft revised NPPF consultation. The NPPF is national planning policy and Local Plan documents such as the Core Strategy must refer to the principles established in the document.
9. The NPPF states in paragraph 35 that Local Plans are examined to assess whether they have been prepared in accordance with legal and procedural requirements, and whether they are sound. Plans are deemed to be sound if they are; positively prepared, justified, effective and consistent with national policy.
10. The Duty to Cooperate was introduced through Section 110 of the Localism Act 2011 in November 2011. It is a legal duty placed on local planning authorities to cooperate constructively, actively and on an ongoing basis with neighbouring authorities, county councils and other prescribed bodies in planning for strategic, cross boundary matters. The duty to co-operate came into force on 15th November 2011 and any plan submitted for examination on or after this date will be examined for compliance. Local planning authorities are expected to provide evidence of how they have complied with any requirements arising from the duty. Non-compliance with the duty to co-operate cannot be rectified after the submission of a plan.
11. The NPPF makes clear that plans should apply a presumption in favour of sustainable development, i.e. plans should positively seek opportunities to meet the development needs of the area, including objectively assessed needs for housing as well as any needs that cannot be met within neighbouring areas.

National Policy Context for Local policy making (Please note, the NPPF references in this section are updated where appropriate in the addendum)

12. NPPF 29 states: 'Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas'.
13. NPPF 35 states: Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to;
  - accommodate the efficient delivery of goods and supplies
  - give priority to pedestrian and cycle movements, and have access to high quality public transport facilities
  - create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones
  - incorporate facilities for charging plug-in and other ultra-low emission vehicles, and
  - consider the needs of people with disabilities by all modes of transport.
14. NPPF 102 requires that transport issues are addressed from the earliest stages of plan-making to ensure that the broad implications of planned development may be considered and any impacts on the transport network addressed.
15. NPPF 103 states: The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.
16. In particular, NPPF 181 suggests planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions

should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

17. This topic paper considers the positive outcomes that can arise from considering air quality alongside open space, habitat development and transport measures in new developments, while ensuring the delivery of corridors through the town that encourage walking and cycling as alternative to the private car for local journeys.
18. Planning Practice Guidance on Air Quality remains unchanged since 2014 – it explains the important relationship between air quality and the planning system and the responsibility under EU legislation- including the 2008 Ambient Air Quality Directive - that stipulates limits to control major pollutants that impact public health. The Guidance also explains the need for local air quality management and the requirement to designate air quality management areas (AQMAs). Ipswich has followed the necessary procedures and has confirmed five AQMAs.
19. Following consultation in 2018 the Department for Environment Food and Rural Affairs (DEFRA) has published the Clean Air Strategy 2019 (3) – It sets out the Government’s plans for dealing with all sources of air pollution, making our air healthier to breathe, protecting nature and boosting the economy. It offers a comprehensive range of actions across all parts of government and society to improve air quality.
20. The Council has given consideration to the Government’s Clean Air Strategy 2019 and exercised its duty under the Environment Act 1995, and DEFRA’s Local Air Quality Management Policy Guidance LAQM.PG16, (4) with the preparation of a draft Air Quality Action Plan and this too has been through a phase of public consultation leading to its (likely) adoption in 2019. The plan has four priority areas that will lead to improved air quality. These relate to :-
  - Public health, behaviours and awareness – e.g. facilitating a modal shift away from private vehicles towards public transport and active travel, to improve air quality and create a healthy community.
  - Transport – Encouraging cleaner vehicles, including renewal strategies for the town’s bus fleet, taxis and corporate fleets, to reduce poor air quality.
  - Policy, planning and infrastructure - By embedding air quality measures into policy development, planning applications and major developments.
  - Wider strategic approach- Reducing exposure to air pollution by tackling the sources of pollution from further transport initiatives and domestic sources.

#### Local Responses to global issues – some evidence

21. Traffic moving around a town can flow easily or sometimes it can grind to halt under the weight of congestion. Flowing traffic will create some pollution – slowing and stopping traffic, sitting in congested roads creates more pollution still. Pollution in the air makes people unwell and this represents an

increasing cost to the NHS. Last year, transport was responsible for 26% of the CO<sub>2</sub> emitted in the UK. (5)

22. The UN World Meteorological Office has confirmed that the twenty hottest summers on record have occurred within the last twenty years and the hottest top four years were the last four years. (6) These raised temperatures can have a serious effect on the health of people going about their normal business, especially those who are vulnerable by way of age or ill health. Similarly, Ipswich is likely to face additional issues arising from rising sea levels. While these trends may have a number of arguable causes there are simple and inexpensive things that we can do in Ipswich that can improve our way of life while making a contribution to improving the UK/global picture.
23. The Local Plan should therefore do all that it can to help slow the process of global warming in whichever way it can and no matter how small the contribution it can offer. For this reason, the topic paper has had regard for the contents of “Air quality and climate change – Integrating policies within Local Authorities.” (7)
24. As explained above, air quality has been given a stronger profile in the national planning guidance. The National Planning Policy Framework (NPPF) promotes sustainable transport, suggesting that the growth of traffic created by development plan proposals should be considered from the earliest stages of plan-making. “The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.”
25. The Department of Environment, Farming and Rural Affairs has responsibility for overseeing national air quality objectives and designated Air Quality Management Areas. The DEFRA website explains the important relationship between policies: Development Control, Air Quality and Climate Change, Air Quality and Health, Air Quality and Transport, Air Quality and Industry, Air Quality and Local and Regional Strategies.
26. DEFRA also makes grant funding available to Local Authorities with one or more AQMAs. The UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations was produced by the Government in July 2017.(8) It sets out the requirement for councils with the worst levels of air pollution at busy road junctions and hotspots to take robust action in the shortest time possible.
27. To support local authorities to deliver these plans, the government launched The Clean Air Fund on Friday 23 March 2018. (9) A broad range of options are suggested for local authorities to consider such as new park and ride services, concessionary travel schemes and improvements to bus fleets. A deadline for submissions has just passed at the end of November 2018 for projects that are to commence from March 2019. Funding will continue and similar bidding timetables are likely to continue in future years. The Local Plan and Air Quality Action Plan jointly would provide an appropriate context for such a bid to be framed.

## The Ipswich response and Local Plan Policies

28. Ipswich has received a rich gift of municipal parks from the past. The town's civic pride is still evident in the three main parklands: Chantry Park, Christchurch Park and Holywells Park.
29. There are also many hectares of smaller parks (such as Alexandra Park) and cemeteries that contribute to the verdant feel of the town. The historic planned growth has been characterised by spacious leafy suburbs laid out from the 1800s onwards and this heritage has been echoed in the layout of the inter war developments.
30. More recent development has maintained this commitment with open space being a formal requirement of successive local plans since 1997. These have contributed both formal and informal play areas, playing pitches and some specialist facilities including skate parks. The Orwell Country Park combined with nearby ancient woodland offers access for all to the beauty of the Suffolk countryside. The borough now has more than 500 hectares of open space and parklands – a scale usually associated with larger towns and some cities.
31. The Council has worked with Suffolk County Council, The Greenways Project and Suffolk Wildlife Trust (among others) to deliver and maintain a network of open spaces and footpaths. Through time, this has seen the Council well placed to help deliver on initiatives for Suffolk's biodiversity and cycling and walking which have been encouraged within the main town parks. The Council sets out a strategy through the Local Plan to repeat the quality of this environment in a "Green Rim" for the edges of the town as development opportunities create such opportunities. This term is explained in para 8.53 and in the Policy CS16
32. Ipswich is rich in biodiversity containing one internationally designated site (a Ramsar site and Special Protection Area for birds), three nationally designated sites (Sites of Special Scientific Interest for wildlife), 21 County Wildlife Sites and 9 Local Nature Reserves. The Suffolk Biodiversity Action Plan has developed the ecological objectives of the Suffolk Councils and their partners. The range of initiatives includes work in the parks and gardens with local schools, an active Park Ranger group and "Wild Ipswich" <http://wildipswich.org/> . The latter partnership's objectives include a strategic approach to planning matters in local plans and individual planning applications, looking after and improving existing wildlife sites and the identification of wildlife corridors throughout Ipswich.
33. There has also been a variety of cycling and walking initiatives built around the balanced transport plan for Ipswich and the "Sustrans" cycling initiatives for Suffolk. The initiatives have created a network that offers feeder routes into bus and train facilities and the connection of residential areas with other key facilities like schools, places of employment and the parks themselves across the town. The key aim was to encourage the "modal shift" by offering real alternatives to the family car for shorter cross or within-town journeys. This approach has been updated and built into the plan's Objectives (Ob6)

and Ipswich Strategic Planning Area policies. (ISPA2 Strategic Infrastructure Priorities).

Policies and proposals provide for:

- i. existing green and wildlife corridors and open space provision to be protected;
- ii. new development to promote and enhance the biodiversity of the corridors and maintain the convenient working of cycling/walking routes that already exist; and
- iii. development proposals to encourage and enhance opportunities for the continued greening of the town to the benefit of current and future residents and visitors.

Public Open Space as connector in cycle and walking network

34. The Local Plan identifies the existing Green Corridors in Policy DM10 and reinforces the importance of ensuring connections across the town. An additional “Blue” corridor is promoted for the River Orwell and the concept / areas for a possible “green rim” are explained.
35. IBC will continue to work with its partners to provide advice on the opportunities for cycling and walking through the Local Plan process, master planning advice and during the Development Management process. To help in this the Council’s Cycling Strategy Supplementary Planning Document gives guidance on providing cycle routes, parking and storage in new developments. [ <https://www.ipswich.gov.uk/content/cycling-strategy-spd-0> ]
36. The following table (as with others that follow below) is a review of the policies that are included in the Preferred Options Local Plan published in January 2019 and show the interactions needed to secure an integrated approach which will encourage people to walk and cycle more.

Policy	Title	Comment
CS5	Improving Accessibility	Enables access across town safely and conveniently by foot and by bicycle - work with the Highway Authority through the Local Transport Plan prioritise the development of an integrated cycle network.
CS3	IP-One	Focuses regeneration effort on IP-One Area where jobs and facilities are located close to homes, and public transport options are maximised

CS10	Ipswich Garden Suburb	Encourages green walking and cycling throughout the site and includes links to Westerfield station, provision of a country park and local/district centres, and extensive public open space throughout the site.
CS11	Gypsy and Traveller Accommodation	Sites should be accessible safely on foot and by cycle.
CS16	Green infrastructure, Sport and Recreation	Strengthens ecological networks that link inner and outer parts of the Borough by providing walking and cycling routes
CS20	Key Transport Proposals	Seeks improved cycling and walking routes between key nodes
DM10	Green Corridors	-The Council will seek to establish and enhance green corridors within the Borough and linking to adjacent open spaces and walking, cycling or riding routes. Lists the existing corridors -Seeks control over future development on or abutting river banks to ensure footpaths and cycle paths are maintained and improved. Reasoned justification at paras. 9.10.6 & 7 clarifies need for cycling and walking in the Green corridors and in any future green rim around the town.
DM11	Countryside	Countryside policy allows for development that contributes to the green rim and other strategic walking and cycling routes and wildlife corridors
DM12	Design and Character	Layouts and design to provide for cycling in usable public spaces
DM20	Transport and access in new developments	Encourages good permeability within new sites to promote cycling and walking. Please also see para 51 below

DM21	Car and Cycle Parking in New Development	Promotes the need for cycle parking facilities - to compliment other policies
SP15	Improving Pedestrian and Cycle Routes	Support improvements to pedestrian and cycle routes within the IP-One area and linking the town centre to residential areas and beyond.

Public Open Space and trees as a means of carbon mitigation and enhancing Biodiversity

37. The NPPF explains the Government’s expectation that policies and decisions should contribute to and enhance the natural environment. Para 170 anticipates the establishment of “coherent ecological networks that are more resilient to current and future pressures”. The opportunity to plant trees in existing and future open spaces can make a significant contribution to the local environment. The Council has signed the Woodland Trust’s “Tree Charter” and subscribes to the ambition to place trees and woods at the centre of our lives and communities. The increase in the Ipswich tree canopy has been a long term aim of the Borough Council and its plans and Tree Management Policy. (10)
38. The Interim Sustainability Appraisal Report (January 2019) for the Local Plan recommends the development of a coherent, high-quality and connected GI network extending throughout and beyond the Borough. This network could include all forms of GI such as parks, hedgerow and mature trees. Urban trees and other vegetation can directly and indirectly affect local air quality by altering the urban atmospheric environment. The ways in which trees affect air quality are
- Through temperature reduction and other microclimatic effects and the shade they offer is generally associated with contributing to cooler summer air temperatures. This is believed to improve air quality because emissions of many pollutants and/or ozone-forming chemicals are temperature dependent.
  - the removal of air pollutants. Trees can remove gaseous air pollution either through uptake via leaf stomata or the plant surface. Once inside the leaf, gases diffuse into intercellular spaces and may be absorbed by water films to form acids or react with inner-leaf surfaces. Recent research suggests that the planting of trees along the sides of roads could reduce NO2 concentrations in addition to providing amenity value.
  - Trees can also remove pollution by intercepting airborne particles. Some particles can be absorbed into the tree, though most that are intercepted are retained on the plant surface. The intercepted particle

is often re-suspended to the atmosphere, washed off by rain, or dispersed through leaf fall. Consequently, vegetation is thought to be only a temporary retention site for many atmospheric particles.

<https://laqm.defra.gov.uk/laqm-faqs/faq105.html>

39. As warmer summers are an ongoing likelihood, the shelter and cooling new trees can offer will be important in the parks and streets of the town centre. As a “Tree Charter” town that cares for the trees we already have, the Council will also seek the planting of new trees that will act as “carbon sinks” as they add to the absorption of CO<sub>2</sub>.

The following table sets out the policies that reflect the way that the Council expects policies to aid delivery of elements of mitigation

Policy	Title	Comment
CS10	Ipswich Garden Suburb	Provision of a country park and extensive public open space throughout the site, which will include the planting of a variety of tree species.
DM1	Sustainable Construction	The policy encourages the use of green or blue roofs on buildings
DM6	Provision of New Open Spaces, Sport and Recreation Facilities	Requires the delivery of public open space in new development and as informed by reasoned justification para 9.6.2 – 10% of the space to be given to “soft landscaping and tree planting”
DM9	Protection of Trees and Hedgerows	Encourages protection and retention of existing trees in proposal sites, the replacement of existing trees removed to facilitate development on a two-for-one basis and new planting schemes as part of soft landscaping plans. RJ para 9.9.2 assists interpretation of the policy.
DM12	Design and Character	Sites should be designed to reflect the special characteristics and distinctiveness of Ipswich. Explanatory text para 9.12.8 and 9 clarifies the important contribution that trees make to the character of the town.

## Public Open space as a place of recreation

40. Improved biodiversity and enhanced habitat also helps create the right setting for our own recreation and leisure. The Council will continue to manage its parks, gardens and open spaces so that wildlife and people can use the spaces. The NPPF has confirmed the importance of the social objectives of plan making including the achievement of strong, vibrant and healthy communities. Chapter 8 promotes healthy and safe communities who should enjoy access to “healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.”
41. NPPF para 96 states “Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities.” Planning policies should be based on robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.
42. The concept of well-being arising from the use of “green infrastructure” is becoming better understood. <https://www.designcouncil.org.uk/news-opinion/designing-good-mental-health-cities-next-frontier-urban-design> and the Borough’s own open space and biodiversity policy 2013 also made this connection - <https://www.ipswich.gov.uk/content/open-space-biodiversity-policy>
43. The Borough’s existing parklands and green corridors are a key element of provision for the local communities. In the spaces provided, formal and informal sports and other activities take place to the general benefit of public health. Space, shade and tranquillity can benefit the mental health of those needing the opportunity to take time out. The Council will seek to protect its open spaces through the plan period.
44. The following policies are relevant concerning the delivery of quality recreation opportunities planned for the borough.

Policy	Title	Comment
CS10	Ipswich Garden Suburb	Provision of a country park and extensive public open space throughout the site, which will include school playing fields, informal and

		formal public open space for recreational purposes, and allotments.
CS16	Green Infrastructure, Sport and Recreation	Safeguards the existing green infrastructure and ensures that our “parks and open spaces are well designed, well managed, safe and freely accessible, encouraging use and benefitting the whole community.” The Council will also enhance and extend the ecological network and green corridors, open spaces, sport and recreation facilities for the benefit of biodiversity, people and the management of local flood risk.
CS17	Delivering Infrastructure	To ensure that Public Open Space is delivered alongside new homes in the plan period the need for green infrastructure etc is stipulated among the broad categories of this policy that set out the Council’s expectations for on and off site infrastructure delivery plans
DM5	Protection of Open Spaces, Sport and Recreation	Sites will be protected from development unless tests indicate that the land is surplus to needs, of low or poor quality and can be replaced with alternative and improved facilities.
DM6	Provision of New Open Spaces, Sport and Recreation Facilities	Requires the delivery of public open space in new development.
DM10	Green Corridors	Seeks to maintain the network of open spaces and walking, cycling or riding routes, whilst adding to the network with similar facilities in the “rim” around the town.

45. There are several of the Council’s other strategies that have an effect on the Council’s Local Plan policies and proposals. These include “The Play Strategy”, “The Allotments Strategy” and the Council’s Cultural and Leisure Services Business Plan. In order to provide facilities balanced with their catchment population and a programme of financial investment, these documents come under continuing review. The Council’s Culture and

Environment team are planning for a rebased review of sports and Leisure facilities during 2019.

#### Transport - initiatives and mitigation of transport generated Air Quality issues

46. The previous paragraphs have focussed on the way that Public Open Space and the policy-led green corridors can promote better public health by offering the chance to walk and cycle and opportunities for recreation. In addition, the benefits arising from these policy initiatives will also be regarded as an element of possible mitigation for development led pollutants. However, as explained in paragraph 13 above, the Council must also have regard for the effects of transport and plan for growth without it giving rise to the deterioration of our environment or air quality. This section deals with the related issues of Transport on our local road network and on local air quality.
47. Air Quality modelling was completed in 2016 in relation to locations identified for future development under the Ipswich Core Strategy and Policies Development Plan Document Review, and Ipswich Site Allocations and Policies (Incorporating IP-One Area Action Plan) Development Plan Document (the Ipswich Local Plan, 2017). The document concluded that :-
- in relation to air quality objectives, the risk in 2015 related only to NO<sub>2</sub>. Concentrations of PM10 and PM2.5 were well below objective levels and therefore not a risk. Looking at the long-term trends, annual mean concentrations of NO<sub>2</sub> appeared to be declining;
  - further investigation was needed to confirm baseline air quality conditions in areas where locations had been identified as medium or high risk of NO<sub>2</sub> exceedances;
  - highway based measures should be investigated to avoid traffic conditions in the future that may result in a new, or sustain an existing, air quality problem. Highway based measures could include improvements to junction configuration, setting priorities for certain vehicle types, dynamic signal controls and intelligent transport system technology amongst other things; and
  - increased use of cycling and walking in place of the private car would also assist in reducing the level of risk. Further understanding of the sources of the emissions (e.g. contributions from different types of vehicle) would assist in targeting effective mitigation measures.

Continuing improvements to emissions were likely to, at least in part, mitigate emissions from the modelled increase in traffic waiting times at certain junctions in peak hours.

48. The impact of traffic growth in Ipswich has been modelled to support the Local Plan Review process and the current version of the assessment is known as Model Run 8. This models the effects of planned growth in the Suffolk Coastal Final Draft Local Plan January 2019, the Ipswich Preferred Options proposals November 2018, and development options for Babergh and Mid Suffolk. The Upper Orwell Crossing (TUOC) has been included in the traffic modelling process, in a method predicting traffic growth “with” and

“without” TUOC in the assessment scenarios, in the light of the County Council’s current review of the project.

49. The modelling suggests some worsening congestion on key A14 junctions at the am / pm or both peaks and some further resultant junction congestion in Ipswich. (11)
50. The Borough Council and Suffolk County Council are currently commissioning updated Air Quality modelling that will follow on from the completed traffic modelling. Due to the Council’s shared timetable for delivery of aligned plans this is only likely to be possible between the current Regulation 18 (Preferred Options) and Regulation 19 (Publication draft) stages. At this time more detailed information will be available from the joint Babergh and Mid Suffolk Local Plan to indicate the broad location of their main development proposals.
51. The Local Plan Review Preferred Options sit alongside the Council’s draft Air Quality Action Plan which looks beyond planning at other measures including corporate measures that can be put in place to improve air quality. The Council’s AQ action Plan will be scrutinised by DEFRA, having been subject to public consultation in late 2018.
52. The Council maintains its commitment to mitigating the impact of traffic congestion arising from development. In addition to the quality of design and layout that offers permeability and accessibility for cycling and walking through new development, Policy DM20 provides that it should also offer safe and convenient access to public transport. The policy also requires the introduction of electric vehicle charging points and a car club scheme provided that scheme viability is not harmed. The Policy concludes with the statement that “Applicants will be required to demonstrate how any adverse transport impacts would be acceptably managed and mitigated. The Council will expect major development proposals to provide a travel plan to explain how sustainable patterns of travel to and from the site will be achieved.”
53. At this stage, the Preferred Options draft Local Plan Review sets out a range of measures to address air quality. The role of public open space and trees has been addressed through earlier sections of this paper, as have proposals to support cycling and walking. Alongside these policy requirements, the following policies are relevant to the issue of air quality and cover the design and access aspects of development, and access to public transport.

Policy	Title	Comment
DM3	Air Quality	Integrates Air Quality Action Plan activity with development management processes – requires Air Quality Assessment in specified applications

		and provides for mitigation and the imposition of obligations to achieve mitigation measures.
DM12	Design and Character	This general design policy allows for “greener streets”, public transport infrastructure and car parking for electric vehicles in well-designed development proposals.
DM20	Transport and Access in New Developments	<p>Policy aims to reduce the impact of traffic congestion on the local road network, ensuring development does not result in a significant impact on air quality or an Air Quality Management Area;</p> <p>Seeks to incorporate electric vehicle charging points and a car club scheme, or if not viable, the infrastructure to secure their future delivery,</p> <p>promotes pedestrian and cycle accessibility to and permeability within new sites, ensuring that any new routes are “coherent” and in accordance with the design principles of policy DM12;</p> <p>Proposals should have safe and convenient access to public transport within 400m, and facilitate its use through the provision of services, infrastructure and/or tickets where required.</p> <p>Applicants will be required to demonstrate how any adverse transport impacts would be acceptably managed and mitigated and the Council will expect major development proposals to provide a travel plan to explain how sustainable patterns of travel to and from the site will be achieved.</p>
DM21	Car and Cycle Parking in New Development	Seeks reduced maximum standards for car parking provision in residential development within the IP-One Area, which has frequent and extensive public transport networks, and easy access to a wide range of employment, shopping, and other facilities.

		<p>Encourages alternatives by securing high quality, secure cycle storage, and within non-residential developments of more than 1,000 sq. m or where more than 50 people will be employed, high quality shower facilities and lockers.</p> <p>The policy requires cycle parking across the Borough to be secure, sheltered, conveniently located, adequately lit, step-free and accessible.</p>
DM33	Delivery and expansion of Digital Communications Networks	Developments of 10 or more homes and other non-residential development should provide for the infrastructure for superfast and full fibre etc. broadband for the contribution they can make to the environment by reducing the need to travel (e.g. by supporting home working).
SP9	Safeguarding land for transport infrastructure	Safeguards the park and ride site at Anglia Parkway, and states that the Council will investigate the feasibility or park and ride at Ravenswood (at Airport Farm Kennels).

## Conclusion

54. The plan will help to sponsor change by combining each of the objectives explained above and offering multiple benefits including:-
- real alternatives for cycling and walking that will provide for improved levels of activity and thus public health;
  - reduced reliance on the private car for shorter cross town journeys to the benefit of air quality and further public health gains
  - an enhanced green canopy and green or blue roofs providing a habitat “net gain”, and
  - a high quality environment for the enjoyment and mental well-being of users, including gains in terms of climate change resilience.
55. Although the borough benefits from a strong heritage of parkland gifted by earlier generations of “civic fathers” the current Local Plan Review must ensure that future development makes its own contribution to the overall provision. In doing so it will provide open spaces and recreation opportunities that are appropriate, meaningful, usable and accessible to the new communities and residents being planned for. The Local Plan Review has offered the opportunity to strengthen its policies in a manner that reflects the direction indicated by the NPPF 2018. The objective will be to bolster the borough’s existing network of corridors and open spaces by

taking every opportunity afforded by development proposals as and when they become available.

56. The issue of Air Quality and the progress of the Council's Air Quality Action Plan (12) will be updated for the next (Regulation 19) stage of Local Plan preparation.

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- (13) [https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(18\)30338-2/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(18)30338-2/fulltext)

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## Post Submission (Regulation 22) Addendum (August 2020)

### Introduction to the Addendum

57. Since the Topic Paper was published in January 2019 to support the Preferred Options consultation at regulation 18 stage of plan preparation, the National Planning Policy Framework has been updated (February 2019) and three relevant studies have been added to the evidence base:
1. Transport modelling for the Ipswich Strategic Planning Area, January 2020;
  2. Air Quality Screening Report, January 2020; and
  3. Air Quality Modelling Report, May 2020.
58. The Government has moved further towards spelling out the requirements for biodiversity net gain, including through Planning Practice Guidance (PPG) amendments published in July 2019, and published amendments to the Air Quality PPG (1 November 2019), the new Climate Change PPG (15 March 2019) and Natural Environment PPG (21 July 2019), which has a chapter on green infrastructure<sup>1</sup>. Therefore, this addendum provides updates to the original topic paper published in January 2019, relating to transport, air quality and green infrastructure. The connection between these policy areas and their close link to promoting health and wellbeing and tackling climate change remains a strong, unifying theme.

### Transport

59. The NPPF was updated in February 2019, but this did not involve changes to Chapter 9 'Promoting Sustainable Transport'. The national policy therefore remains as it was when this topic paper was published. The national requirements for planning policies include promoting mixed uses to reduce the need to travel, protecting sites and routes needed to develop transport infrastructure and providing for high quality walking and cycling networks. These requirements are reflected through strategic policies such as CS2 the Location and Nature of Development, CS5 Improving Accessibility and CS20 Key Transport Proposals.
60. At a site level, the emphasis is on promoting sustainable transport modes and prioritising cycling and walking, achieving safe and suitable access including for deliveries and service vehicles, meeting the needs of people with disabilities, mitigating significant impacts on the transport network, creating safe, attractive places and enabling electric vehicles to be charged. These are primarily addressed through policy DM21 Transport and Access in New Developments.
61. The report, 'Ipswich Strategic Planning Area Local Plan Modelling Forecasting Report - Forecasts with demand adjustments' (Core Document Library reference D35.2 'Transport Modelling Results Report Volume 3 (Model Run 7)' was published in January 2020. The report updates and

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<sup>1</sup> <https://www.gov.uk/guidance/air-quality--3>, <https://www.gov.uk/guidance/climate-change>, <https://www.gov.uk/guidance/natural-environment>,

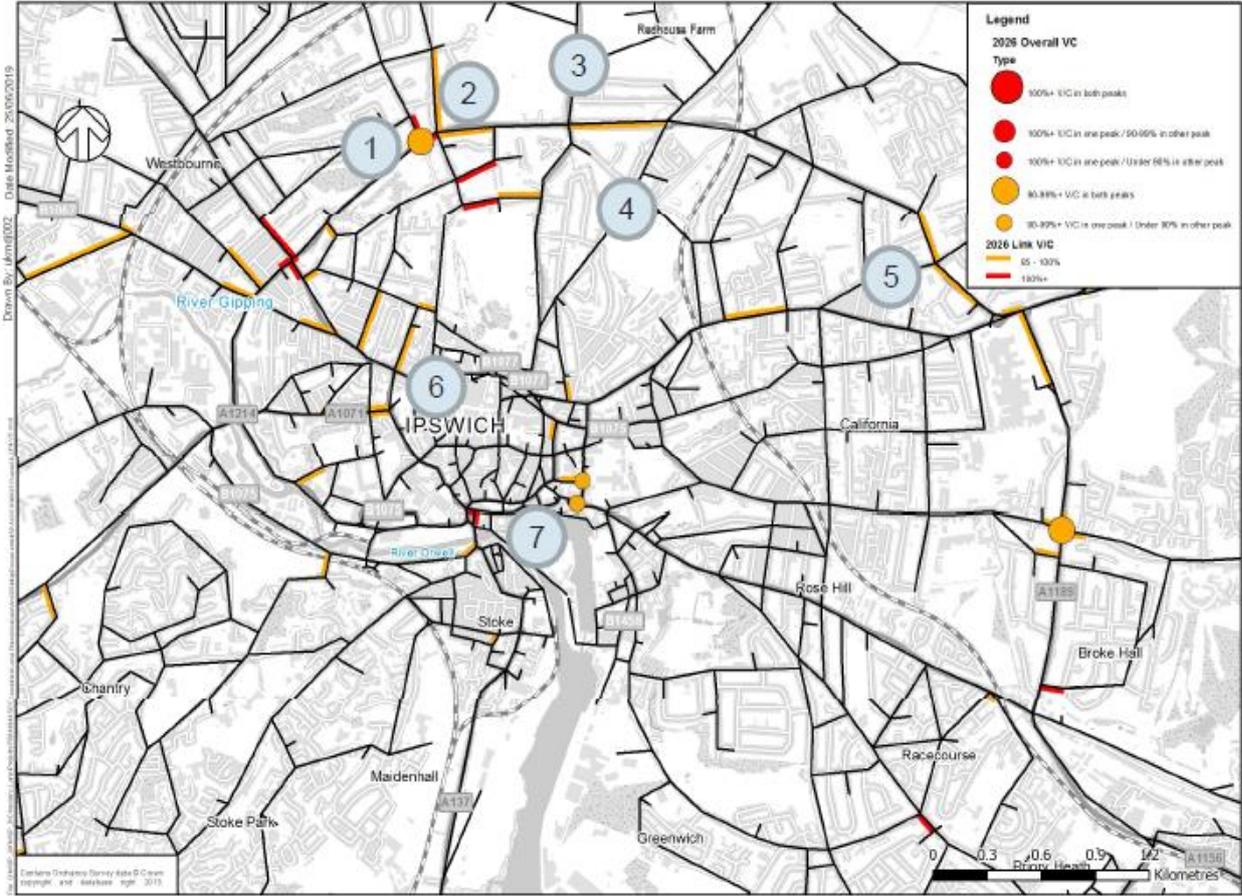
presents additional information to the earlier document, 'Local Plan Modelling for Babergh & Mid Suffolk, Ipswich And Suffolk Coastal Forecasting Report – Volume 2: Suffolk Coastal and Ipswich Preferred Option' published in January 2019 (Core Document Library reference D36.1).

62. The differences between the January 2020 Volume 3 report and the January 2019 Volume 2 report are broadly in three categories: site assumptions, road scheme assumptions and mitigation modelling. The Transport Modelling Methodology Report for the Volume 3 modelling report dated January 2020 (Core Document Library reference D35) sets out the methodology used to derive the modelled results.
63. The first category of changes relates to the proposed site allocations included. The January 2020 Volume 3 report reflects the site allocation information from the Regulation 19 Final Draft Local Plans for Ipswich Borough Council and for the Suffolk Coastal planning area of East Suffolk Council, and from the Regulation 18 Preferred Options Babergh and Mid Suffolk Joint Local Plan. This represented the most up to date site allocation information available at the time.
64. The second category relates to assumptions about road schemes which will take place over the plan period to 2036. Whilst Volume 2 tested scenarios 'with and without the Upper Orwell Crossings' project, Volume 3 reflects the County Council's decision not to take the project forward as a scheme of three bridges. Neither volume 2 or 3 modelled the Ipswich Northern Routes options, which were subject to separate modelling and related to potential growth beyond the current local plan period.
65. The third relates to mitigation modelling: the Volume 3 report focuses on the impact of demand adjustment assumptions, in order to test the effect on the Suffolk County highway network within the Ipswich Strategic Planning Area (ISPA) of achieving assumed levels of modal shift away from private car travel. This follows the publication of the Suffolk County Council Transport Mitigation Strategy for the ISPA, August 2019 (Core Document Library reference D39). The effects of growth on the strategic road network were modelled through Model Run 8 and results reported in the Volume 2 modelling report, January 2019.
66. The transport modelling is based on a 2016 baseline and considers the forecast years 2036, as the end of Local Plan period, and 2026, as an interim year during the Local Plan period. The interim year of 2026 was included for two reasons: firstly, to assess the level of impact at the end of Highways England's Roads Investment Strategy 2 (RIS2) period to inform the need for mitigation measures on the Trunk Road networks in RIS3. Secondly, to provide a meaningful period for the assessment of the impact of the early mitigation strategy on demand management. The modelling considers an assessment of morning (AM) and evening (PM) peak flows.
67. The Volume 3 modelling report first looks at the reduction in delay. This can be used to demonstrate the benefit of the demand adjustment. The

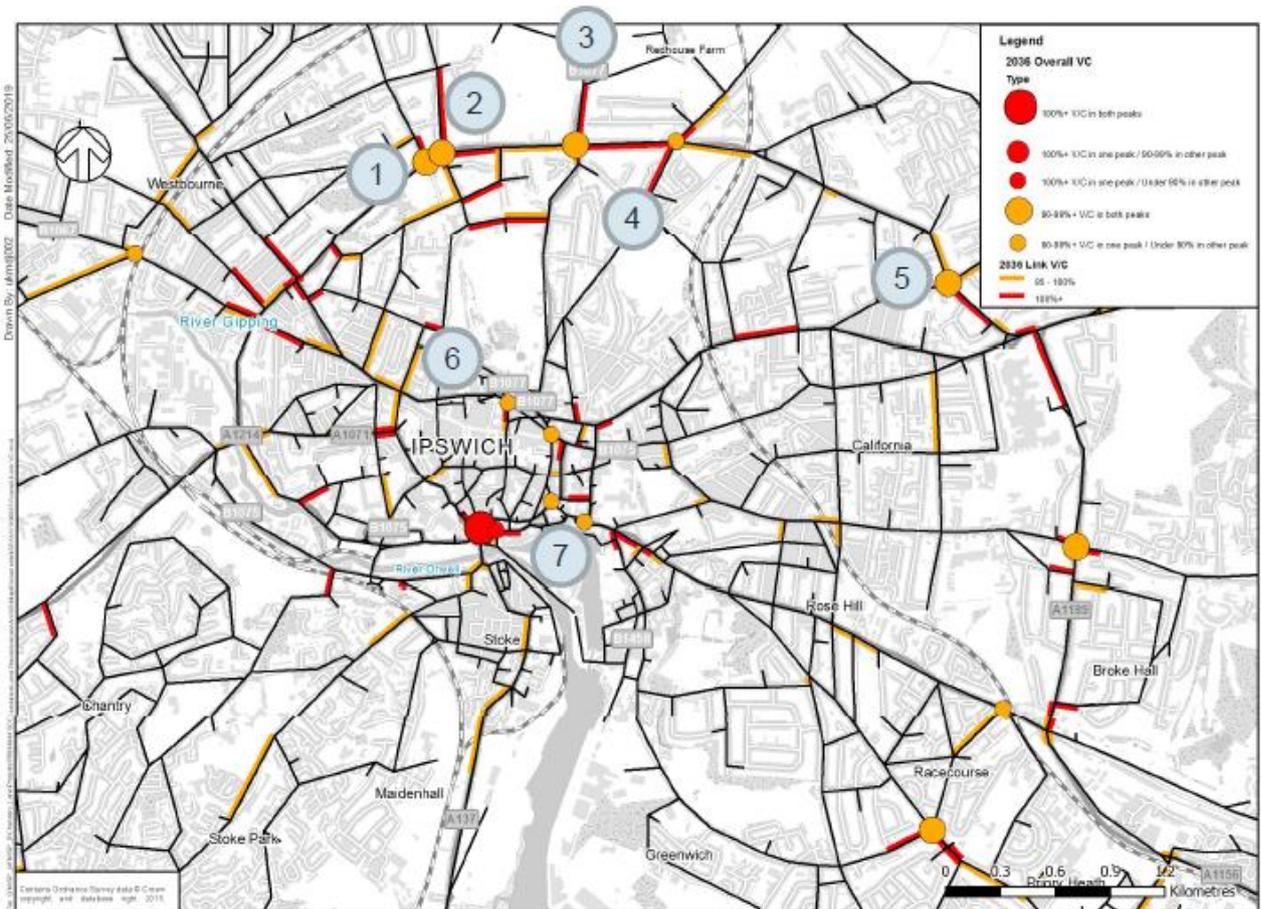
analysis of the trips demonstrates that the demand adjustment has a significant benefit in reducing delays to vehicles across all authorities within the ISPA. This shows that the mitigation will ease congestion on the highway network.

68. It goes on to analyse the junctions in the forecast modelling which are shown to experience congestion for ISPA Planned Growth. Volume to capacity (V/C) percentages above 100% show a traffic flow beyond its theoretical capacity. These locations show the greatest network stress and suggest delays are likely. At these locations the network may cease to function efficiently and blocking back from queuing may occur, constraining the capacity and potentially causing congestion on adjacent links and junctions. Locations at which the V/C percentage is between 85-99% are also considered likely to experience congestion and are highlighted within the analysis. The demand reduction reduces the number of junctions under stress in the 2026 and 2036 AM and PM scenarios.
69. The analysis then turns from junctions to links with a V/C ratio of over 100%. The demand reduction also reduces the number of links under stress in all scenarios.
70. The Volume 3 January 2020 report finally identifies junctions and links that are likely to experience significant peak hour congestion in the future after the demand adjustments. Maps 1 and 2 below show the location of the forecast capacity issues at 2026 and 2036 with the demand adjustments factored in. Results are presented for overall junction V/C as well as link-based V/C. The previous January 2019 results report presented results in terms of overall junction V/C only. In considering mitigation, it is considered that link V/C should also be analysed as overall junction V/C may not show there is an issue at a junction if the majority of junction approaches operate within capacity.

Map 1 Ipswich – 2026 Links and Junctions with V/C 85%+ - With Adjustment  
 (Figure 15 from the Volume 3 report)



Map 2 Ipswich – 2036 Links and Junctions with V/C 85%+ - With Adjustment  
(Figure 16 from the Volume 3 report)



71. The maps show the locations of forecast congestion within Ipswich, with particular issues identified by 2036 for the following locations:

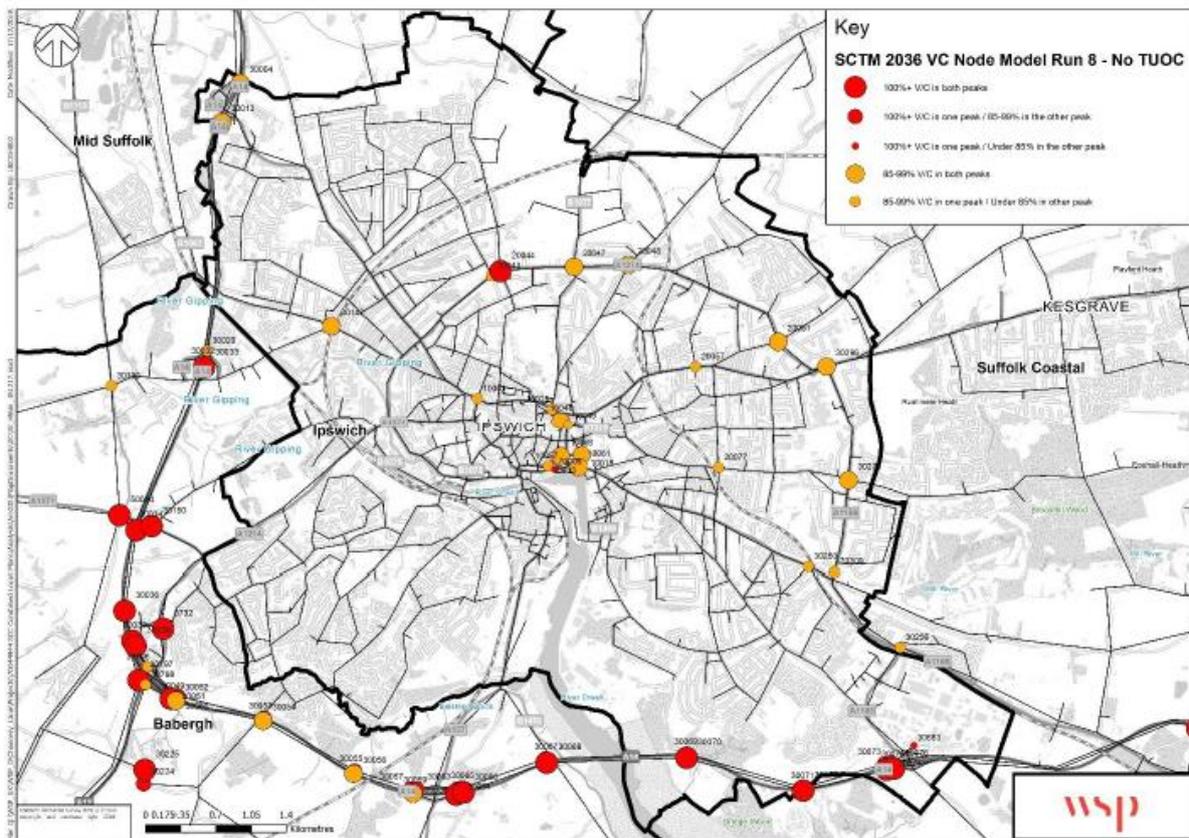
1. A1214 / Dale Hall Lane – approaching capacity in AM/PM peaks in 2036 (Location 1);
2. A1214 / Henley Road –approaching capacity in 2036 AM/PM (Location 2);
3. A1214 / Westerfield Road – approaching capacity in 2036 AM/PM peaks (Location 3);
4. A1214 / Tuddenham Road – approaching capacity in AM peak in 2036 (Location 4);
5. A1214 / Rushmere Road – approaching capacity 2036 AM/PM peaks (Location 5);
6. V/C results show congestion in the AM and PM peak on St Helens Street / Old Foundry Road / Crown Street (Location 6) and corridors in Ipswich town centre; and
7. V/C results show congestion in the AM and PM peak on Key Street/College St (Location 7).

72. The 2036 modelling results with the demand reduction demonstrate that a total of five junctions are no longer flagged as having V/C issues. Nevertheless, junctions around the A1214 are shown to have capacity

issues as per the previous results report, but the number of links affected is reduced from the previous modelling.

73. The Volume 3 January 2020 modelling focused on central Ipswich, but the Volume 2, January 2019 report results provided a wider geographical view of forecast capacity at junctions in and around Ipswich in 2036 without adjustment. This is shown in Map 3 below, to provide the wider spatial context. A separate report, 'Ipswich Strategic Planning Area Strategic Road Network Technical Note', August 2019 (Core Document Library reference D38) addresses the strategic road network.

Map 3 Ipswich – 2036, No Upper Orwell Crossing, Junctions with Overall V/C over or near capacity (Figure 15 from the Volume 2 report, 2019)



74. The Volume 3 January 2020 report states in conclusion that Ipswich is the location which benefits the most from the ISPA demand adjustments. It experiences the highest proportional decrease in delay and reduction of junctions which show overall V/C issues. However, it is clear that, despite the significant benefits of the demand reductions, there are still various locations which will be over or close to capacity in 2026 and 2036: junction approaches along the A1214 corridor and junctions in and around the Star Lane gyratory. Other junctions which show overall capacity issues include Nacton Road / Landseer Road and the St Augustine roundabout (Bucklesham Road / Felixstowe Road).

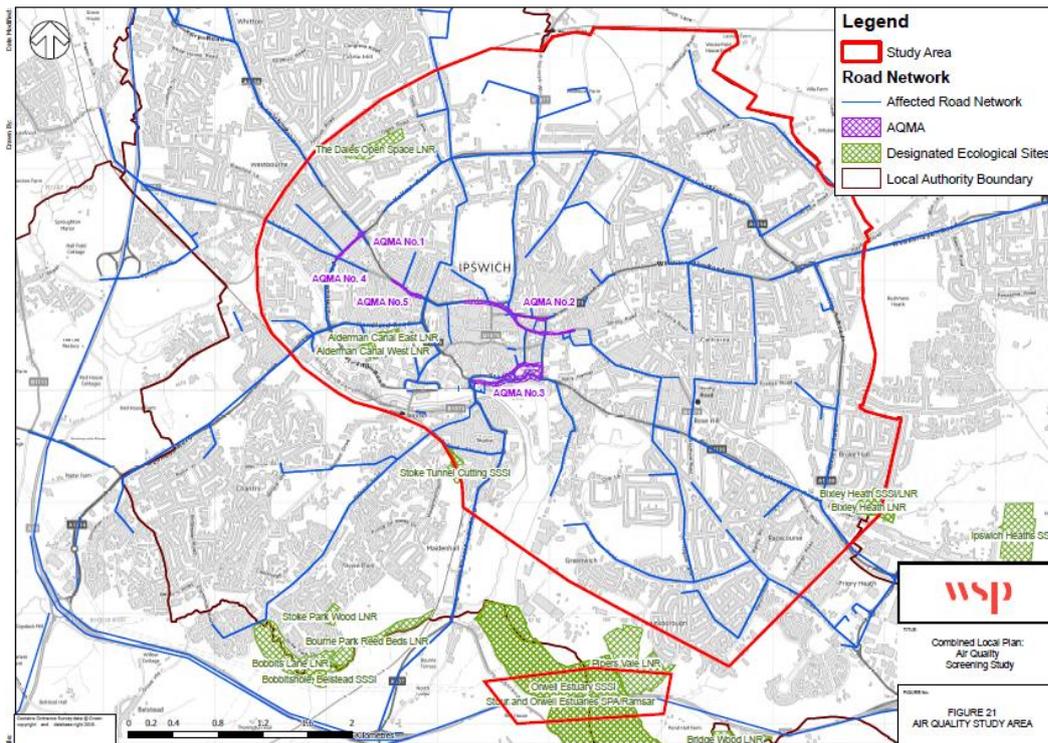
75. The report also points out that, 'there are also many parts of the network that will operate well within their theoretical capacity. For junctions where the V/C is shown to approach or exceed operational capacity, the individual development proposals assessed within the model would, as part of their planning applications, need to consider additional measures to help mitigate any impact.' Mitigation may take the form of infrastructure works such as junction improvements or provision for cycling, or 'softer' solutions such as travel planning to support sustainable travel choices. Improvements in network capacity through the removal of bottlenecks may not necessarily provide a solution, as improvements in one location can have harmful knock on impacts elsewhere.
76. There is a clear relationship between Air Quality and traffic congestion. The above traffic capacity analysis was used to inform the Air Quality Assessment, by converting peak traffic flows to average daily traffic flows. The key outcome from the Air Quality Assessment was to support the implementation of the Suffolk County Council transport mitigation measures, which reflect the need for modal shift away from polluting motor vehicles to more sustainable forms of travel. As well as benefiting traffic flow around the IPSA area this approach will address locations with poor air quality in Ipswich and other parts of the ISPA area. The following section gives more detail on this topic.
77. The transport modelling results serve to emphasise the importance for Ipswich of implementing transport mitigation measures over the plan period. Suffolk County Council published the ISPA Transport Mitigation Strategy in August 2019 (Core Document Library reference D39) and the Final Draft Ipswich Local Plan has taken this up and formalised the elements of the strategy through policy CS20 Key Transport Proposals. As work is ongoing on the precise package of measures to be implemented – and identifying key funding sources – the policy expresses the mitigation as a menu of measures. The ISPA Board will monitor the work following on from it.
78. Specific work streams to take forward the SCC Transport Mitigation Strategy include the following:
- A cross-authority team working to develop a funding action plan for the mitigation measures;
  - ISPA Board - to review monitoring and co-ordinate growth for the ISPA area;
  - ISPA Statement of Common Ground Iteration 6;
  - Joint work between SCC and IBC on the Local Cycling and Walking Infrastructure Strategy with a view to consultation later in 2020; and
  - A draft statement of common ground between IBC and SCC in relation to the approach to car parking within the Local Plan, to ensure that over provision does not undermine sustainable travel incentives.

## Air Quality

79. The NPPF February 2019 recognises the importance of air quality through paragraph 103, 'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health.' The NPPF continues on the theme of air quality in paragraph 181 'Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the plan-making stage...'
80. The Final Draft Local Plan addresses sustainable travel, modal shift, the mitigation of transport impacts and safeguarding for transport infrastructure, as outlined in the main body of the topic paper and the Transport section of the addendum above. This section of the addendum describes the key findings of the air quality modelling undertaken and what it means for the plan. Ipswich has five Air Quality Management Areas (AQMAs) and all relate to road vehicle exhaust emissions of NO<sub>x</sub> at, or near, busy road junctions.
81. The air quality study consists of two components: a screening report jointly commissioned by the ISPA authorities and detailed modelling commissioned by Ipswich Borough Council and Suffolk County Council. The purpose was to identify the impacts on air quality due to the transport emissions generated through planned growth within the ISPA area. Scenarios with and without the Ipswich Local Plan were modelled to understand the effects of the Ipswich Local Plan alone, alongside the combined effects. The study considered the effects in terms of compliance with air quality standards which include national objectives and mandatory European Union (EU) limit values for the protection of human health, and potential harm to sensitive ecological resources.
82. The purpose of the screening report was to identify the locations where there is a risk of non-compliance with air quality objectives and where adverse ecological receptors could occur, in order to delineate the area to be modelled. The screening report, called 'The Aligned Local Plans for Suffolk Districts Air Quality Screening Study,' January 2020 (Core Document Library reference D34) describes the methodology followed:
- Determining the affected road network ('ARN') using indicative criteria for requiring an air quality assessment (from the Institute of Air Quality Management);
  - Reviewing baseline conditions within 200m of the ARN;

- Identifying locations where there is a risk of non-compliance with one or more ambient air quality standard in order for them to be modelled; and
  - Determining the impact at 'sensitive receptors', such as residential properties and locations where there are, or are likely to be, vulnerable occupants such as hospitals, care home and schools. Designated ecological sites may also be sensitive to the effects of changes in local air quality.
83. The methodology involves identifying Annual Average Daily Traffic or 'AADT' on stretches of road, using data from the transport modelling. The Screening Study identifies stretches of road within Ipswich where AADT flows are forecast to be greatest in 2026 and 2036.
84. The screening assessment shows that the ARNs for 2026 and 2036 due to the aligned local plans are similar in extent and both are extensive. However, from a review of baseline conditions, it is likely that only some locations within 200 metres of the ARN will be at risk of non-compliance with one or more ambient air quality standard in 2026. By 2036, the risk of non-compliance is likely to be low everywhere even though traffic levels are forecast to substantially grow between 2026 and 2036 with the aligned local plans. This assumption is reliant on vehicle emissions of NO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> decreasing each year after 2026 in line with DEFRA forecasts (which currently extend only to 2030), with the proportions of low and zero emissions vehicles increasingly dominating the vehicle fleet in line with the Government's 'Road to Zero' aspirations.
85. The locations with high risk, and therefore most sensitive to changes in air pollutant concentrations are within the central area of Ipswich where the public is likely to be present. Within Ipswich the pollutant with greatest risk of non-compliance is annual mean NO<sub>2</sub>. For PM<sub>10</sub> or PM<sub>2.5</sub>, it is not certain that there are no locations with exceedances of the standards as there is no monitoring of these pollutants, but the national DEFRA 'Pollution Climate Mapping' modelling indicates that roadside concentrations will be well below the limit values for years 2019 and thereafter. Historical modelling carried out for the Council also indicated that levels of PM<sub>10</sub> were well below air quality standard levels. Locations in the suburbs of Ipswich are likely to have low risk of non-compliance.
86. Also at risk of adverse impacts, due to increases in traffic and congestion on the A14, are ecological resources within the Orwell Estuary SSSI, and Stour and Orwell Estuaries SPA and Ramsar site.
87. Monitoring data indicates that the risk of exceedances is greatest in the central area of Ipswich, with the risk diminishing as distance away from the centre of the borough increases. Areas of the borough that have not been included within the study area are considered to be low risk in their future potential to experience exceedances of the air quality standards. As a result of the findings of the screening report, the 'study area' identified for more detailed modelling is identified by the red lines in Map 4 below.

Map 4 The 'Study Area' for detailed air quality modelling



88. The results of the air quality modelling are reported in 'The Aligned Local Plans for Suffolk Districts Ipswich Local Plan Review Air Quality Assessment, Volume 1: Report', May 2020 (Core Document Library reference D33 – 'Air Quality Modelling Report'). The modelling considered the effects of the Ipswich Final Draft Local Plan without and with transport mitigation as set out in the Suffolk County Council Transport Mitigation Strategy for the ISPA. Again, the methodology is clearly set out in the report, including the assumptions upon which the work was based.

89. The modelling compared a 2017 baseline with 2026 and 2036 concentrations of pollutants. In the 2017 base year, most modelled exceedances of the annual mean NO<sub>2</sub> air quality standard occur at human receptors within the existing AQMAs. Those outside the AQMAs tend to be close by, e.g. Valley Road close to AQMA 1 and Fore Street close to AQMA 3. The highest modelled annual mean NO<sub>2</sub> concentration occurs on the south side of Crown Street at 'The Halberd Inn'. Elsewhere within the study area, annual mean NO<sub>2</sub> concentrations were determined to be well below the air quality standard.

#### Results for the Ipswich Local Plan without transport mitigation

90. Chapter 6 explains the results of modelled NO<sub>2</sub> concentrations with the Ipswich Local Plan Review proposals but *without* transport mitigation. These show that most human receptors in 2026 would experience concentrations that are 30% lower than in 2017 and in 2036 would experience concentrations that are approximately 40% lower than in 2017. This is primarily due to government targeted measures to tackle roadside

exceedances of the EU limit value for this pollutant. There are limited exceptions where there is predicted to be a slight or moderate adverse effect of the Local Plan and these are mainly with the existing AQMAs, but do not indicate exceedances of the air quality standards. Only one location has a 'substantial adverse' effect with the Local Plan and would still have an exceedance over the air quality objectives in 2026 and 2036; this is the Halberd Inn on Crown Street. This result may have been influenced by its being modelled as a street canyon.

#### Results for the Ipswich Local Plan with transport mitigation

91. The headline finding of chapter 7 of the Air Quality Modelling Report is that the impacts of pollutant concentrations with transport mitigation measures tend to be more beneficial than without, because of reduced traffic at junctions, 'which would otherwise experience substantial congestion and higher emissions'. Modelled annual mean NO<sub>2</sub> concentrations with the Ipswich Local Plan Review proposals with transport mitigation in 2026 are predicted to be approximately 33% lower than in the 2017 base year at most human receptors. By 2036, most human receptors are predicted to experience concentrations that are approximately 40% lower than in 2017.
92. With transport mitigation, most human receptors would experience negligible impacts on annual mean NO<sub>2</sub> concentrations with the Ipswich Local Plan Review proposals in 2026 and 2036. Where impacts would be notable, in 2026 they are mainly beneficial impacts due to reductions in concentrations. By 2036, despite transport mitigation, there would be some notable adverse impacts, which are limited to AQMA No.2 only. Again, the Halberd Inn at Crown Street is the only location which would experience exceedances of the air quality standards with concentrations at all other human receptors predicted to be below the objective levels.
93. The study also considered ecological impacts. Whilst this is not part of the Local Air Quality Management Technical Guidance methodology, it is a component of the Design Manual for Roads and Bridges (DMRB) used to assess the effects of major road schemes on air quality. Therefore, it has been included in this study for completeness. The results show that, while there could be impacts on the Stour and Orwell Estuary Special Protection Area and Ramsar site and Orwell Estuary SSSI and a small number of county wildlife sites, these are assessed to be 'not significant' when assessed using the DMRB definitions. This means that none of the sites is predicted to experience change in nitrogen levels that could change the species-richness of the vegetation.
94. The overall conclusion of the report is that future levels of air pollutants would generally be lower than at present with NO<sub>2</sub> levels predicted to be substantially lower. 'The only adverse impacts at human receptors with the Local Plan Review proposals, where there is also an exceedance of an air quality standard for annual mean NO<sub>2</sub>, are predicted at one location ... within AQMA No.2 on Crown Street, Ipswich. With SCC transport mitigation strategy measures applied across all ISPA boroughs, the magnitude of these adverse impacts would be reduced and in 2026 it is predicted that

there would be beneficial impacts at this location, although the modelling did not predict the removal of [the] exceedance ... Overall, it can be concluded that the Ipswich Local Plan Review proposals with SCC transport mitigation strategy measures applied across all ISPA boroughs would not give rise to a significant air quality effect within the IBC district.' (paragraphs 8.4.4 and 8.4.6).

95. The modelled remaining exceedance at The Halberd Inn on Crown Street will need to be addressed. In the first instance, the Council will review the location of diffusion tubes for the next monitoring period, with a view to locating a tube appropriately to establish the baseline. This will provide data that can be discussed with the Highway Authority.

#### Implications for the Final Draft Local Plan

96. The Air Quality Modelling Report shows that the biggest influence on air quality on the Borough is likely to flow from national measures to move towards cleaner vehicles. Nevertheless, it also reinforces the importance of the measures set out in the Suffolk County Council Transport Mitigation Strategy for the ISPA in supporting modal shift to reduce congestion and associated air quality effects. Paragraphs 77 and 78 above in the Transport section explain how the Local Plan has responded to this through the re-working of policy CS20 between regulation 18 Preferred Options stage and regulation 19 Final Draft stage and the action ongoing to work towards implementation.
97. The Final Draft Local Plan also contains policy DM3 which sets out requirements for developments in relation to air quality. The policy and its supporting text make the connection with the Air Quality Action Plan, which the Council published in 2019, and the Low Emissions Strategy Supplementary Planning Document (SPD), which is currently in preparation with public consultation scheduled for the autumn. The Air Quality Action Plan 2019-2024 (Core Document Library reference G39) sets out measures for Ipswich Borough Council and Suffolk County Council under broad headings of behaviours and modal shift, incentivising switching to cleaner vehicles, policy, planning and infrastructure and participation in wider campaigns to benefit air quality. The Low Emissions Strategy SPD will set out more detailed guidance for applicants to ensure that air quality is dealt with consistently and proportionately. It will also address parking provision within developments in the IP-One Area, to support modal shift.
98. The air quality modelling report was subject to sustainability appraisal and Habitats Regulations Assessment and did not produce any significant concerns arising ('Habitats Regulations Assessment of the Ipswich Borough Local Plan Review at Final Draft Plan stage: Air Quality & Flood Risk Addendum', May 2020, and 'Ipswich Local Plan 2018-2036 Sustainability Appraisal Addendum Strategic Environmental Assessment and Sustainability Appraisal Air Quality & Flood Risk Addendum' June 2020 (Core Document Library references A7 and A5).

## Green Infrastructure

99. The Final Draft Local Plan sets out a positive strategy for green infrastructure and biodiversity and the main body of this topic paper identifies the connections and overlaps between the different policy areas of transport, air quality, green infrastructure, climate change and health. This section identifies where new policy or evidence relating to green infrastructure was published between the regulation 18 (preferred options) and regulation 19 (final draft) stages of local plan preparation and how the Final Draft Local Plan was amended to respond to it.

## Biodiversity Net Gain

100. Between Regulation 18 and Regulation 19 stages of the plan making process, changes to the wording of the Final Draft Local Plan through Policy DM8 'The Natural Environment' were introduced. The changes included reference to the need to provide biodiversity net gain through new developments, rather than just halting the overall decline. This now reflects the biodiversity net gain objectives of the NPPF (2019) the Government's 25 Year Environment Plan (2018) and the Environmental Bill (2020).
101. The Natural Environment Planning Practice Guidance (PPG) was also updated in July 2019 to include updated guidance on biodiversity net gain, which builds on the information in the NPPF 2019. The PPG provides further guidance on how plans can incorporate requirements for biodiversity net gain and how this works in the context of the mitigation hierarchy. The PPG also provides development management context on how biodiversity net gain can be calculated and assessed.
102. Policy DM8 'The Natural Environment' of the Final Draft Local Plan introduces requirements for biodiversity net gain and puts this in the context of the mitigation hierarchy, noting that, 'Proposals which would result in significant harm or net loss to biodiversity, having appropriate regard to the 'mitigation hierarchy', will not normally be permitted.'

## Environment Bill

103. On the 20<sup>th</sup> January 2020, the Government published the 'Environment Bill 2020 Policy Statement'. The Policy Statement sets out an overview of the changes which will be introduced through with the Environment Bill when it achieves royal assent later this year, including a mandatory requirement for biodiversity net gain for new developments.
104. Policy DM8 'The Natural Environment' of the Final Draft Local Plan requires development to incorporate measures to provide net gains for biodiversity, reflecting the mandatory requirements which will be introduced later this year.
105. The Policy Statement also notes the introduction of Local Nature Recovery Strategies across England through the Environment Bill. The aim is to 'help local authorities and other public bodies identify priorities and opportunities for conserving and enhancing nature.'

106. The Final Draft Local Plan includes 'Plan 5: Ipswich Ecological Network' which maps the strategic green spaces across the Borough and aspirational links between these sites. Alongside this, 'Plan 6 Green Corridors' and 'Policy DM10: Green Corridors' sets out the Council's ambitions to 'establish and enhance green corridors within the Borough and linking to adjacent open spaces and walking, cycling or riding routes.

#### Green Trail

107. Since the Topic Paper was originally published in January 2019 to support the Preferred Options stage of the plan, the Final Draft Local Plan has been updated to include the replacement of the phrase 'green rim' with 'green trail'. The purpose of the green trail remains the same as the green rim as described in the adopted Local Plan, however, the name has been changed to more accurately encompass both the biodiversity and active travel functions of these green spaces.
108. The term 'green rim' may falsely give the impression that this land is a de-facto green belt and purely restrictive in purpose. The green rim was established as an ecological and recreational accessible corridor and was designated as such to ensure that any development incorporates sufficient links to this corridor. The evidence to support the green trail is found in the report, 'A Green Infrastructure Strategy for the Haven Gateway' (Core Document Library reference D25).

#### Wildlife Audit 2019

109. Since the Topic Paper was originally published in January 2019, the Suffolk Wildlife Trust have carried out an updated audit of the allocated development sites within the Final Draft Local Plan. Any updated information on the biodiversity value of the sites has been incorporated into the site sheets within the Site Allocations and Policies (incorporating IP-One Area Action Plan) Development Plan Document Review. This included an assessment and recommendations on net gain which is being used as an exemplar approach methodology combining wildlife audit with biodiversity net gain.

#### Recreational Avoidance and Mitigation Strategy ('RAMS') Supplementary Planning Document

110. The Final Draft Local Plan has been amended to take account of the adopted Suffolk Coast European Sites Recreational Disturbance Avoidance and Mitigation Strategy (RAMS) SPD. The strategy was prepared in collaboration with Babergh District Council, Mid Suffolk District Council and East Suffolk District Council and sets out a coordinated, cross-boundary approach to avoid and mitigate the impacts of new residential development set out in the Local Plans. The strategy is funded through developer contributions as part of planning permissions given for new residential development. The Strategy is fully endorsed by Natural England, as an exemplar approach to addressing the requirements of the Habitats Regulations 2017 (as amended). The Council formally adopted the document on 19<sup>th</sup> February 2020. The SPD summarises the requirements

of the technical Strategy and supports its delivery. It is referenced appropriately within policies ISPA2 to ISPA4, CS16, CS17 and DM8.