

Habitats Regulations Assessment of the Ipswich Borough Local Plan Review at Final Draft Plan stage

Rachel Hoskin, Durwyn Liley & Zoe Caals

FOOTPRINT ECOLOGY, FOREST OFFICE, BERE
ROAD, WAREHAM, DORSET BH20 7PA
WWW.FOOTPRINT-ECOLOGY.CO.UK
01929 552444



FOOTPRINT
ECOLOGY

Footprint Contract Reference: 516

Date: 13th January 2020

Version: HRA at Final Draft Plan stage

Recommended Citation: Hoskin, R., Liley, D. & Caals, Z. (2020) Habitats Regulations Assessment of the Ipswich Borough Local Plan Review at Final Draft Plan Stage. Unpublished report for Ipswich Borough Council.

Summary

This report is the Habitats Regulations Assessment (HRA), in accordance with the Conservation of Habitats and Species Regulations 2017, as amended, of the Ipswich Local Plan Review at Final Draft stage, made under Regulation 19 of the Town and Country Planning (Local Plan) (England) Regulations 2012 (as amended). A plan level HRA considers the implications of a plan or project for European sites, in terms of any possible harm to the habitats and species that form an interest feature of the European sites in close proximity to the proposed plan. This HRA report draws on a range of background evidence, understanding of the European sites, and a mitigation strategy currently being developed for the Suffolk coastal and heathland European sites.

All aspects of the emerging plan that influence sustainable development for the Ipswich Borough are checked through this assessment for risks to European sites. Risks need to be identified in order to inform the screening for likely significant effects, which is an initial stage of assessment to establish whether there is any possibility of the implementation of the plan, alone or in-combination, causing significant effects on any European site. Where the potential for significant effects is identified, or there are uncertainties, a more detailed appropriate assessment is to be undertaken.

This report has regard for relevant case law, including a European Court of Justice Judgment that highlights the need for appropriate use of avoidance and mitigation measures at the correct stage of HRA. During its preparation, this HRA has recommended a number of wording amendments to the Ipswich Local Plan. Explanatory text relating to these recommendations made at the screening stage has been added to the screening table where appropriate.

The screening table has identified key themes and a number of site allocations for more detailed assessment at the appropriate assessment stage. The themes assessed in more detail within the appropriate assessment sections of this report are: recreation pressure from new residential development and a check of the applicability of the Suffolk HRA Recreation Avoidance and Mitigation Strategy (RAMS) for the increased housing numbers, other urbanisation effects in close proximity (fire risk, lighting, noise etc), air quality from increased road traffic, water quality and resources, air quality, a more detailed site allocations check, and biodiversity net gains.

This HRA at Final Draft stage of the Ipswich Local Plan is able to conclude that at a plan level, the Local Plan will not result in adverse effects on European site integrity. This is subject to the incorporation of recommendations made within the screening for likely significant effects table and the detailed appropriate assessment chapters. This HRA will be finally updated with a check of any modifications after Examination in Public.

Contents

Contents.....	4
Acknowledgements	6
1. Introduction and Background Information.....	7
Context	7
Habitats Regulations Assessment process	9
The emerging Ipswich Borough Local Plan Review.....	10
Relevant HRA work and other evidence and assessment.....	14
<i>The adopted Local Plan HRA work</i>	<i>14</i>
<i>Suffolk Coast HRA Recreation Avoidance and Mitigation Strategy</i> <i>(RAMS)</i>	<i>15</i>
<i>Sustainability Appraisal for the emerging Local Plan Review.....</i>	<i>16</i>
<i>Additional evidence base documents of relevance</i>	<i>16</i>
European sites	18
2. Consideration of Site Allocations.....	23
3. Screening for Likely Significant Effects.....	26
What constitutes a likely significant effect?	26
Screening tables.....	28
4. Appropriate Assessment of Impact Pathways.....	54
Purpose of the appropriate assessment	54
Appropriate assessment topics	55
Consideration of potential effects alone and in-combination	56
5. Recreation	57
Summary of impacts of recreation on interest features.....	57
Checking whether strategic mitigation is fit for purpose.....	59
<i>Appropriate assessment conclusions for recreation.....</i>	<i>62</i>

6.	Urbanisation Effects	64
	<i>Site allocations check.....</i>	<i>65</i>
	<i>Appropriate assessment conclusions for urbanisation</i>	<i>73</i>
7.	Water	74
	<i>Water supply</i>	<i>74</i>
	<i>Water treatment</i>	<i>75</i>
	<i>Flood risk.....</i>	<i>75</i>
	<i>Appropriate assessment conclusions for water.....</i>	<i>75</i>
8.	Air Quality	77
	<i>Appropriate assessment conclusions for air quality.....</i>	<i>79</i>
9.	Biodiversity Net Gain	82
	<i>Appropriate assessment conclusions for biodiversity net gain</i>	<i>83</i>
10.	Conclusions and Next Steps	84
11.	References	85
12.	Appendix 1 - The Habitats Regulations Assessment Process.....	89
13.	Appendix 2 –Conservation Objectives.....	94
14.	Appendix 3 – The Nature Conservation Interest of the European Sites.....	96

Acknowledgements

Footprint Ecology is grateful to Anna Roe, Sally Mimms and Sarah Barker at Ipswich Borough Council for their assistance and helpful discussion, and Michael Hammond for provision of GIS files during the preparation of this HRA report. Additionally, John Jackson, Alison Collins (now retired) and Jack Haynes of Natural England have assisted with discussion in relation to mitigation options during the development of the strategic approach to mitigating for recreation. Neighbouring authorities have also assisted with wider discussion relating to the cross boundary strategic mitigation for Suffolk European sites.

1. Introduction and Background Information

Context

- 1.1 This report is the Habitats Regulations Assessment (HRA) of the Ipswich Borough Local Plan Review, at Final Draft Plan stage. This section provides the background context for this HRA.
- 1.2 This HRA report has been prepared by Footprint Ecology, on behalf of Ipswich Borough Council. It has been written with the benefit of ongoing discussions with planning officers within the Borough Council, and forms part of the evidence base for the emerging new Local Plan. This version of the HRA accompanies the plan at Final Draft Plan consultation, which is at 'Regulation 19' stage, in accordance with the Town and Country Planning (Local Planning) (England) Regulations 2012.
- 1.3 HRA is an assessment of the implications of a plan, or where relevant a project, for European wildlife sites. The HRA looks at what implications a plan or project may have for European wildlife sites, and where necessary will check whether any insignificant impacts alone may become significant in combination with a number of plans or projects together. This can include a range of project proposals that sit within the same plan, or other plans.
- 1.4 An explanation of European wildlife sites and the HRA process is provided within this section below. This report is the HRA of the emerging Final Draft Plan Review, having been updated since the initial HRA report was prepared for the Preferred Options at Regulation 18 stage of plan making. This HRA report may be further updated to check any modifications after the Examination of the final draft Ipswich Borough Local Plan prior to adoption.
- 1.5 A HRA considers the implications of a plan or project for European sites, in terms of any possible harm to the habitats and species that form an interest feature of the European sites in close proximity to the proposed plan or project, which could occur as a result of the plan or project being put in place. In this instance, the HRA is undertaken at plan level, for a Local Plan Review. HRA will also be required for development projects coming forward in the future in accordance with the Local Plan. An explanation of the HRA assessment process is summarised in this section below, and also described in greater detail in Appendix 1.
- 1.6 The Ipswich Borough lies in the central southern part of the County of Suffolk and is the County Town and largest town in the County. It therefore has notable pressures in terms of growth, both housing and economic, and also in terms of

its transport infrastructure. Both the A12 and the A14 are major transport routes of relevance to the Borough. Ipswich Borough is part of the wider Ipswich Housing Market Area and the Ipswich Functional Economic Area, together with neighbouring local planning authorities. A summary of the key issues and opportunities in terms of growth objectives over the plan period is provided in this section below.

- 1.7 The Borough has the benefit of a waterfront to the south of Ipswich town centre, where the upper part of the Orwell Estuary comes into the Borough and is a defining feature of Ipswich town. This part of the Borough historically supported a range of maritime industry and is now an area of regeneration with apartments, the University of Suffolk, leisure facilities and an attractive waterfront setting that has regard for its historic roots whilst boosting the economy of the Borough.
- 1.8 The Orwell Estuary is one of two estuaries that form the Stour and Orwell Special Protection Area (SPA) and Ramsar site. To the west and north of the Borough across the Suffolk County is an extensive suite of additional European sites, encompassing coastal, woodland and heathland habitats, designated as Special Areas of Conservation (SACs) in addition to SPA classifications. A notable proportion of these European sites are also within the Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB). The Ipswich Borough boundary adjoins East Suffolk to the north east, Mid Suffolk District to the north west and Babergh District to the south west.
- 1.9 When embarking on new HRA work, it is important to take stock of previous HRA work undertaken. Where a previous HRA has been prepared for a local plan it is beneficial to consider how well the measures recommended or put in place to protect European site interest in previous plan iterations have progressed, and what evidence there is available to support the continuation of such measures, or to indicate that they may need modification. This HRA therefore looks at the measures that were recommended by the previous HRA for the current documents that form the existing Ipswich Borough Local Plan, now under Review.
- 1.10 In order to adequately assess potential impacts and secure protection for European sites through the local plan, any changes in circumstances, evidence, statutory advice or local understanding of the issues needs to be considered. A summary of relevant HRA work is provided in this section below. It is however recognised, as explained below, that previous HRA work has only been undertaken relatively recently, as the current documents that make up the adopted Ipswich Local Plan have only recently been adopted. Extensive updates to previous HRA work are therefore not necessary.

Habitats Regulations Assessment process

- 1.11 A 'Habitats Regulations Assessment,' normally abbreviated to HRA, is the step by step process of ensuring that a plan or project being undertaken by, or permitted by a public body, will not adversely affect the ecological integrity of a European site. Where it is deemed that adverse effects cannot be ruled out, a plan or project must not proceed, unless exception tests are met. This is because European legislation, which is transposed into domestic legislation and policy, affords European sites the highest levels of protection in the hierarchy of sites designated to protect important features of the natural environment. It is important to highlight that the legislation requires the standard of proof, i.e. if it cannot be proven that effects will not occur, it must be assumed they will. This is often referred to as the 'precautionary approach.'
- 1.12 The relevant European legislation is the Habitats Directive 1992¹ and the Wild Birds Directive 2009², which are transposed into domestic legislation through the Conservation of Habitats and Species Regulations 2017, as amended. These Regulations are normally referred to as the 'Habitats Regulations' and the 2017 update consolidates previous versions since the first Habitats Regulations 1994 and corrects some minor errors in transposition. The 2017 Regulations have also had some minor updates in 2018, which do not significantly change the requirements in relation to local plan HRA and the assessment of implications for European sites.
- 1.13 The legislation sets out a clear step by step approach for decision makers considering any plan or project. In England, those duties are also supplemented by national planning policy through the National Planning Policy Framework 2019 (NPPF). This national planning policy also refers to Ramsar sites, which are listed in accordance with the international Ramsar Convention. The NPPF requires decision makers to apply the same protection and process to Ramsar sites as that set out in legislation for European sites. Formally proposed sites, i.e. sites proposed for European designation and going through the designation process, and those providing formal compensation for losses to European sites, are also given the same protection. This report refers to all the above sites as 'European sites' for assessment purposes, as the legislation is applied to all such sites, either directly or as a result of policy.
- 1.14 The Government's published National Planning Practice Guidance (NPPG), which accompanies the NPPF, has recently been updated in 2019 to include guidance

¹ Council Directive 92/43/EEC

² Council Directive 2009/147/EC

on HRA. Footprint Ecology's approach to HRA preparation follows the principles of the NPPG.

- 1.15 It should be noted that the European Directives operate on the basis that sites are in place to serve as an ecologically functioning network, and ultimately it is the preservation of that network as a whole that is the overall aim of the European Directives. The network is often referred to as the Natura 2000 Network or 'N2K.'
- 1.16 The duties set out within the Habitats Regulations apply to any public body or individual holding public office with a statutory remit and function, referred to as 'competent authorities.' The requirements are applicable in situations where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. A more detailed guide to the step by step process of HRA is provided in this report at Appendix 1.
- 1.17 In assessing the implications of any plan or project, in this case a Local Plan Review, for European sites in close proximity, it is essential to fully understand the sites in question, their interest features, current condition, sensitivities and any other on-going matters that are influencing each of the sites. Every European site has a set of 'interest features,' which are the ecological features for which the site is designated or classified, and the features for which Member States should ensure the site is maintained or, where necessary restored. Each European site has a set of 'conservation objectives' that set out the objectives for the site interest, i.e. what the site should be achieving in terms of restoring or maintaining the special ecological interest of European importance. These objectives are set by Natural England and published for each European site in high level generic form and then with supplementary advice that relates to the interpretation of these at each individual site.
- 1.18 The site conservation objectives are relevant to any HRA, because they identify what should be achieved for the site, and HRA may therefore consider whether any plan or project may compromise the achievement of those objectives. A summary of relevant European sites is provided within this section below. Further information on European site interest and links to the conservation objectives can be found at Appendix 2 of this report. The European sites of relevance to this HRA are discussed below and in Appendix 3.

The emerging Ipswich Borough Local Plan Review

- 1.19 A local plan is produced by a local planning authority to set the quantum and direction of sustainable development for the forthcoming plan period. The NPPF states that sustainable development is the achievement of social, economic and environmental aspirations, and these three dimensions of sustainable

development are mutually dependant. For the natural environment, the NPPF advises that sustainable development should include protecting, enhancing and improving biodiversity, and moving from a net loss of biodiversity to achieving net gains. This provides the relevant context for consideration of European sites within a HRA as part of the local plan evidence base.

- 1.20 The review of the Ipswich Local Plan is in response to adopted policy CS7 'The Amount of New Housing Required,' which commits the Council to an early review of housing needs for the Borough, in collaboration with neighbouring local planning authorities. At Examination of the adopted Local Plan, the Examining Inspector highlighted that the right level of housing growth for the area may not be fully reflected in the adopted quantum of housing delivery proposed for the whole plan period, and that early consideration of housing need after adoption should be undertaken.
- 1.21 An early review of the two Ipswich Local Plan Development Plan Documents (DPDs), includes a review of both the Core Strategy and Policies DPD and the Site Allocations and Policies (incorporating IP-One Area Action Plan) DPD. The review is primarily being undertaken to account for up to date evidence in relation to housing need. Importantly, since the commitment made to an early review in adopted policy CS7 there has been additional guidance from central Government in relation to the calculation methodologies for quantifying housing need.
- 1.22 The review therefore now has regard for new guidance in relation to objectively assessing housing need, and the plan therefore provides for the quantum of required housing growth over the new plan period of 2018 to 2036 as being 8,010 dwellings (a slight reduction from 8,622 dwellings set at Preferred Options stage). This does not differ markedly from the currently adopted overall quantum of housing growth within the Core Strategy and Policies DPD, which provides for 489 dwellings over the current plan period of 2011 to 2031, totalling 9,777 dwellings. The currently adopted Core Strategy highlights that there are still areas of deprivation within the Borough and Ipswich has a continuing need for further regeneration in some areas.
- 1.23 Growth in jobs and associated employment land needs have also been adjusted to account for up to date evidence and methodologies for forecasting needs. The plan at Final Draft Plan stage uses the latest East of England Forecasting Model (EEFM) August 2017, which is discussed within the Final Draft Plan, and which reduces previous forecasts by approximately 40%. The model gives an Ipswich Borough jobs growth forecast for the plan period of 9,318. Based on the latest 2017 EEFM, the Council are seeking to deliver at least 9,500 new jobs for the 2018-2036 period. An employment land requirement of 23.2ha is provided

for within the plan, reduced from the Preferred Options stage in light of the new forecast.

- 1.24 The recently published Defra 25 Year Environment Plan³ sets out an ambitious programme for improving the natural environment, including the achievement of environmental net gains through development, of which biodiversity is an important part. This is challenging for a relatively small Borough that is dominated by the urban area of Ipswich, but it is now increasingly recognised that urban biodiversity opportunities have a critical role to play in wildlife restoration and ecological connectivity, as well as bringing important wellbeing and economic benefits to an area.
- 1.25 The Defra strategy follows on from the review of England's wildlife sites and ecological network, set out in the report to Defra in 2010 entitled 'Making Space for Nature',⁴ which was prepared by a group of national experts chaired by Professor Sir John Lawton. Within this report, it is identified that in order to make our ecological networks and wildlife sites capable of future resilience, there is a need for more wildlife sites, and that existing networks need to be bigger, better and more connected. The future health of designated sites is very much dependant on the future health of wider biodiversity and the ecological networks that sustain them. In planning for the long-term sustainability of designated sites, it is therefore necessary to protect and enhance wider biodiversity through the planning system as well as the designated sites. This HRA recognises this need and includes a section in relation to biodiversity gains through planning within the appropriate assessment (added at Regulation 19 stage).
- 1.26 The NPPF sets a requirement for biodiversity net gain as part of development, and it is widely anticipated that the forthcoming Environment Bill will make this requirement mandatory. There is already recently published good practice on biodiversity net gain through development, and Natural England published an update to the biodiversity metric used to calculate biodiversity net gain earlier this year. It is within this wider context of a need to ensure that biodiversity is central to spatial planning, that HRA fits, securing protection and enhancement of the most important wildlife assets at an international scale.
- 1.27 Policies that not only protect but also seek to enhance, restore and expand the biodiversity assets of the Borough and wider area are an important and integral

³ <https://www.gov.uk/government/publications/25-year-environment-plan>

⁴ <https://www.gov.uk/government/news/making-space-for-nature-a-review-of-englands-wildlife-sites-published-today>

part of the Local Plan Review, and are essential to enable development projects coming forward to meet the international and national legislative and policy duties for biodiversity, both designated and non-designated. This HRA includes recommendations for strengthening policy wording and supporting text within the emerging Ipswich Local Plan Review.

- 1.28 The Final Draft Plan Review document for consultation at Regulation 19 stage comprises a text update to the existing DPDs that make up the adopted Local Plan. This is in recognition of the very recent adoption of these DPDs and that they are therefore in the main, up to date in terms of current priorities for the Borough and supporting evidence. The review does however provide an opportunity to update policies in relation to key themes, and this includes the natural environment as well as the primary reason for the review which is housing need.
- 1.29 The Final Draft Plan Review has been prepared following earlier stages of plan preparation and evidence review. A call for sites was undertaken in summer 2017, which encouraged submission of new sites that could potentially come forward for development in the Borough, and therefore proceed through the appraisal processes that identify viable options for potential development sites that can be included in the emerging Local Plan for public consultation. This was then followed up with a public consultation on the Issues and Options for the Borough in Autumn 2017, and Preferred Options consultation in early 2019. The consultation responses and evidence produced to date has informed the development of the Final Draft Plan. This will be submitted for Examination by the Planning Inspectorate, allowing any representations on the soundness of the plan to be considered by the appointed Examining Inspector during the Examination.
- 1.30 The review of the Local Plan enables the plan to consider growth needs up 2036, with the proposed plan period now being 2018 and 2036. The Local Plan will continue to be two DPDs, and will include spatial policies, development management policies and site allocations. This HRA has assessed all parts of the emerging plan at Regulation 18 and Regulation 19 stages of plan making and is updated each time.
- 1.31 The methodology for calculating housing growth requirements for the Local Plan review follows the Government policy and advice for assessing housing need, including requirements set out in the recently updated NPPF and the NPPG.
- 1.32 The newly calculated housing requirement was set at Preferred Options stage followed the most up to date methodology. The revised NPPF 2019 and the updated planning practice guidance advised that local authorities use the 2014-based household projections rather than the 2016-based projections in their

housing assessments. The effect of this has been to reduce the figure down to 445 dwellings per annum 2018 to 2036, (or 8,010 dwellings for the 18 year period), as a starting point. In addition, the plan seeks to meet the need for permanent pitches for gypsies and travellers, which should be treated as equivalent to dwellings when considering the cumulative potential risks to the natural environment in addition to site specific matters. The Final Draft Plan includes 23.2ha of employment land to be delivered within the new plan period. The policies within the Core Strategy and Policies DPD are divided into strategic and development management policies. The policies within the Site Allocations DPD are specifically related to site allocations and opportunity areas. The new Local Plan for the Borough will update the two DPDs and policy content.

Relevant HRA work and other evidence and assessment

- 1.33 The following documents are of relevance to this HRA due to their consideration of the natural environment and resources, and also the historic HRA work for the documents that informs the currently adopted Local Plan.

The adopted Local Plan HRA work

- 1.34 The HRA work for the currently adopted DPDs comprises of the HRA of the Core Strategy and Policies DPD and the HRA of the Site Allocations DPD. These were prepared by The Landscape Partnership and included a number of updates as the DPDs progressed. The HRA for the Core Strategy and Policies DPD identifies a high-level list of measures to ensure that potential impacts of increased recreational disturbance on European sites within and outside of Ipswich Borough are mitigated for. This relates to mitigating the cumulative effect of housing growth across Ipswich Borough, in combination with housing growth in neighbouring Districts. The measures listed include:

- The provision of the Country Park in the north of Ipswich, delivering parts b, d, e, g and h of adopted policy CS16
- Production and implementation of visitor management plans at key sites
- A monitoring programme to assess visitor impact over time.

- 1.35 Since the finalisation of the HRA, work has progressed on the strategic approach to mitigating recreation impacts, as discussed below. The adopted Core Strategy and Policies DPD commits the Council to the preparation of a mitigation strategy to specify the measures required and how these will be delivered.

- 1.36 Policy CS17, Delivering Infrastructure, states that “the Council will seek contributions to ensure that the mitigation measures identified in the Habitats Regulations Assessment and in the Recreational Avoidance and Mitigation

Strategy can be addressed and delivered, including for any measures not classified as infrastructure.”

- 1.37 The supporting text for Policy CS17 advises that the HRA for the plan has identified a number of measures to mitigate increased recreation pressure as a result of the cumulative effect of housing growth across the Ipswich Borough and adjoining Districts. This is a potential impact that is recognised as being significant for the European sites as a result of the combined quantum of growth within the plan, i.e. an in-combination effect.
- 1.38 In response to plan level HRA and advice from Natural England, Local planning authorities are expected to undertake project level HRAs on relevant planning applications. For the Ipswich Borough this means securing mitigation projects focusing on delivering projects around the Stour and Orwell Estuaries. These interim strategy measures will now complement the strategic authority approach set out below.

Suffolk Coast HRA Recreation Avoidance and Mitigation Strategy (RAMS)

- 1.39 The Suffolk Coast HRA RAMS is a means by which sustainable housing growth can be delivered in the Ipswich Borough and its neighbouring local planning authority areas of East Suffolk, Babergh District, Mid Suffolk District and part of the Waveney District, whilst adequately protecting Suffolk’s coastal, estuarine and heathland European sites. It is being developed as a strategy that provides a solution to the additional recreation pressure risks highlighted by each of the local plan HRAs for the authorities. The RAMS has been developed in recognition of an in-combination effect on the European sites arising from recreation pressure. The individual HRAs for the Local Plans recognise an in-combination effect from the residential growth within their individual plans, and then a cross boundary in-combination effect is recognised from the residential growth in neighbouring Suffolk authority areas.
- 1.40 The RAMS sets out an integrated suite of avoidance and mitigation measures that are supported by comprehensive evidence and experience gained from other European site mitigation strategies. The RAMS has been prepared by Footprint Ecology, under the guidance of a steering group with representatives from the local planning authorities and Natural England. The RAMS has evolved over time with detailed analysis of the best options for implementation being recently undertaken. It is now in the final stages of preparation for implementation.
- 1.41 The RAMS has been developed on the basis of housing numbers and spatial distribution in the existing local plans for each of the local planning authorities in the Steering Group. An important aspect of this HRA of the Ipswich Local Plan

review is to ensure that the RAMS remains a viable mitigation solution for the new Local Plan, having regard for the new housing numbers and locations for growth identified within the emerging plan. This analysis forms part of the appropriate assessment within this HRA report.

Sustainability Appraisal for the emerging Local Plan Review

- 1.42 Ipswich Borough Council has commissioned consultants to prepare a sustainability appraisal to inform the Local Plan Review. A sustainability appraisal is undertaken by local planning authorities on local planning documents to assess whether the economic, environmental and social needs of the local area are being met. The appraisal will run alongside the preparation of the emerging Ipswich Local Plan Review, appraising the options being taken forward and whether alternatives might have a greater positive or lesser negative effect on economic, environmental and social objectives. Sustainability appraisal also incorporates the requirements of the European Strategic Environmental Assessment Directive (2001/42/EC).
- 1.43 As part of the scoping stage, relevant background documentation and evidence on economic, environmental and social factors for the local area is reviewed. The Scoping Report for the review of the Ipswich Borough Local Plan was consulted upon as part of the consultation on the Issues and Options and Preferred Options stages of plan making.
- 1.44 There are some elements of cross over between HRA and the sustainability appraisal. The appraisal will consider environmental sustainability in terms of natural resources such as air and water, and how they may be affected by the plan. These are similarly important supporting aspects of European site ecological integrity. The sustainability appraisal scoping report has set a biodiversity objective 'to conserve and enhance biodiversity and geodiversity', with a number of indicators within that objective that relate to European sites, including any change in designated site condition and the recorded number of visitors using designated sites. The consultants for the sustainability appraisal are liaising with Footprint Ecology and recommendations of this HRA will be cross referenced and explained in the sustainability appraisal.

Additional evidence base documents of relevance

- 1.45 The following documents make up the evidence base for the emerging new Local Plan. They are either current documents that supported the adopted DPDs and remain relevant for the review, documents that have or will be updated for the review, or new documents that are being produced to inform the review. Some of these documents are assessed in detail at the appropriate assessment stage.

- 1.46 Water Cycle Study - A new water cycle study undertaken jointly for Ipswich Borough and East Suffolk has been prepared to inform the new Local Plans and its findings are discussed in the appropriate assessment.
- 1.47 Strategic Flood Risk Assessment (SFRA) - Ipswich Borough Council's Level 2 Strategic Flood Risk Assessment was published in May 2011 and revised in 2019. Local Planning Authorities have to produce a SFRA to inform their land use allocations and planning policies. The SFRA for Ipswich Borough comprises a main report and appendices which refer to potential sources of flooding considered likely to affect the Borough. The SFRA has also informed the production of the Development and Flood Risk Supplementary Planning Document (SPD) which provides specific guidance to developers including a framework of requirements for 'safe' development in the flood plain. As part of the appropriate assessment, the SPD is considered in terms of protection for European sites.
- 1.48 Transport modelling - A transport model for the Suffolk local planning authorities has been undertaken by the Highways Authority's consultant (WSP) to support the new Local Plans in the Ipswich Strategic Planning Area. The model provides a baseline for the situation at 2016, and the model has been run to provide predictions for the end of the plan period in 2036. The model scenario plans traffic levels at 2026 with and without mitigation and also in 2036 with and without mitigation. The transport data indicates potential traffic changes as a result of proposed new growth. Increased traffic could lead to increased vehicle emissions that in turn can lead to deposition of nitrogen on sensitive European site habitats. The consideration of air quality impacts in light of the transport modelling is provided within the appropriate assessment and considers impacts from the combined growth in the neighbouring authorities.
- 1.49 Air quality modelling – Ipswich Borough undertook air quality modelling in 2016 for the adopted Local Plan. The Borough has recently published an Air Quality Action Plan in February 2019, building on an earlier topic paper has been prepared to indicate the way in which wellbeing, air quality and public open space are related together. Ipswich Borough Council, along with East Suffolk Council and Suffolk County Council commissioned updated air quality modelling, which is being undertaken in 2019, enabling a cumulative consideration of development in neighbouring authorities and informing transport infrastructure investment decisions. This will also give consideration to sensitive habitat receptors. This work is not yet finalised but will be checked before the final HRA is prepared, after Examination and prior to adoption.

European sites

- 1.50 In undertaking HRA it is necessary to gather information on the European sites that could be potentially affected by the plan or project. A 20km buffer from the edge of the Borough was used to initially identify sites that may be potentially affected. This buffer is used by Footprint Ecology for local plan HRAs as it is deemed precautionary enough to capture most potential impact pathways (i.e. the means by which a European site may be affected) between plan implementation within a local planning authority's administrative area. The list of European sites within 20km was then evaluated in terms of relevant threats, vulnerabilities and current issues.
- 1.51 European sites within 20km are shown in Map 1 (SACs), Map 2 (SPAs) and Map 3 (Ramsar sites). Sites are listed in Table 1. Full details of the interest features and current pressures/threats for each site are summarised in Appendix 3.
- 1.52 Due to the distance between the Borough and sites that have a more localised potential zone of influence due to their habitats and sensitivities, Staverton Park and the Thicks SAC and Hamford Water SAC/SPA/Ramsar site are not considered relevant to any of the various pathways discussed within this HRA and these can be ruled out for any likely significant effect.
- 1.53 Whilst Staverton Park is sensitive to air pollution, this will mainly be localised as the A12, which may have increased traffic from growth in Ipswich, is some distance away from the European site. The distance between Hamford Water and the Borough rules out any hydrological impacts. For recreation pressure the distance and journey route to Hamford Water would suggest limited influence and Staverton Park has restricted public access.
- 1.54 The Outer Thames Estuary marine SPA is primarily sensitive to coastal and offshore impacts, and again therefore is screened from further consideration within this HRA.

Table 1: European Sites within a 20km radius

SAC	SPA	Ramsar
Alde-Ore & Butley Estuaries	Alde-Ore Estuary	Alde-Ore Estuary
Hamford Water	Hamford Water	Hamford Water
Orfordness to Shingle Street	Stour and Orwell Estuaries	Stour and Orwell Estuaries
Staverton Park and the Thicks	Deben Estuary	Deben
	Outer Thames Estuary	
	Sandlings	

Map 1: SACs where boundary falls within 20km of Ipswich Borough

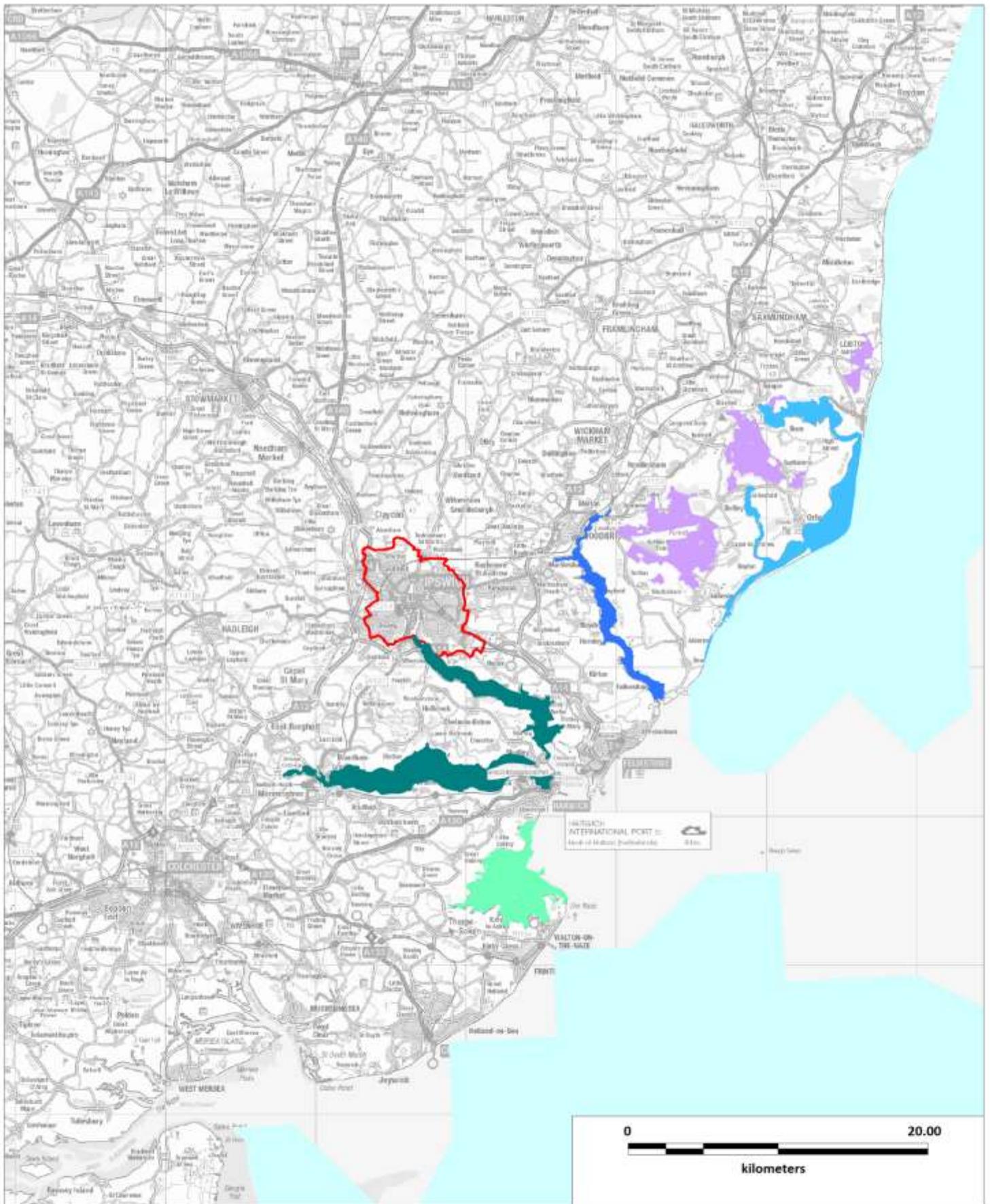


Ipswich Borough

SACs

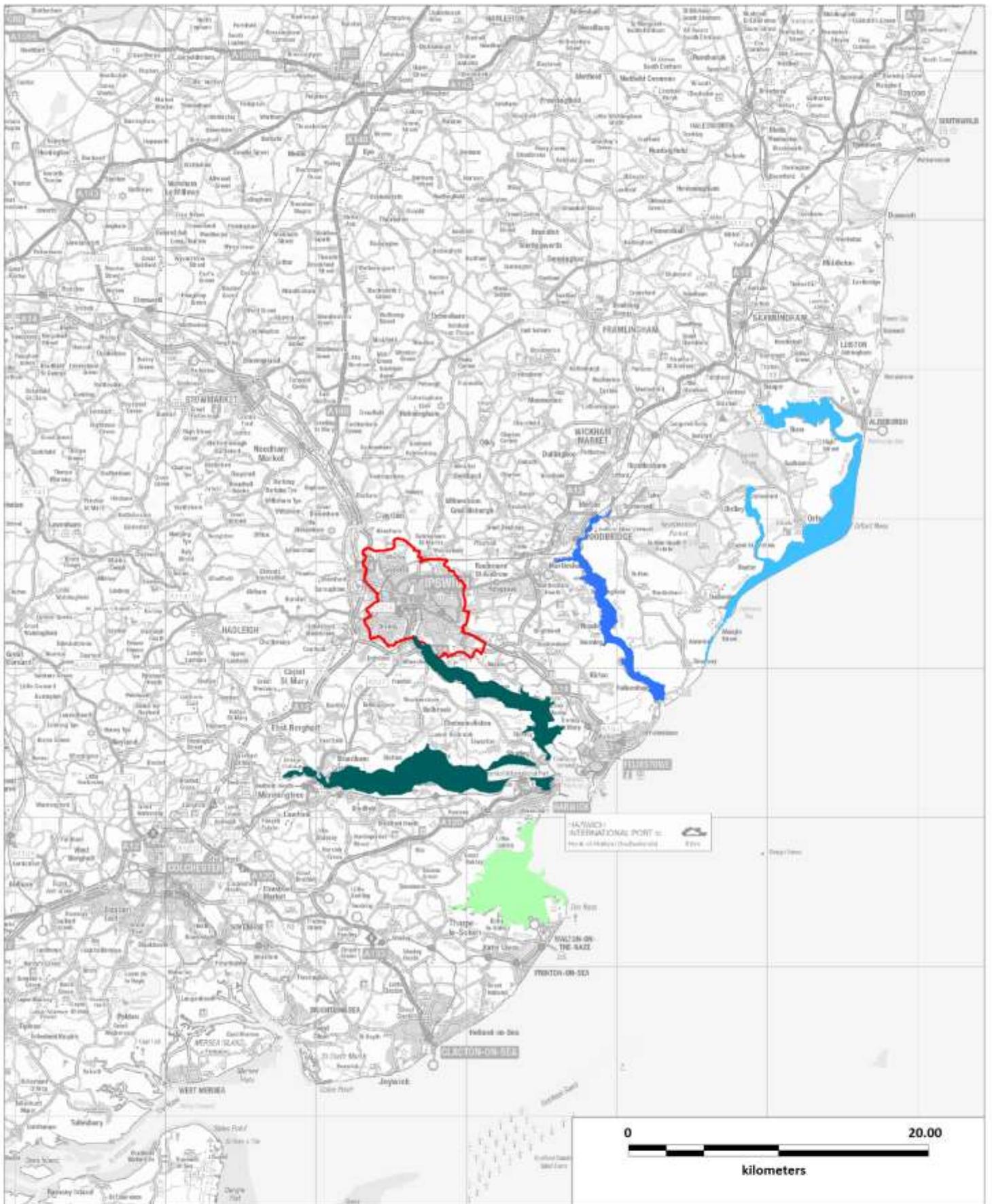
-  Alde-Ore & Butley Estuaries
-  Hamford Water
-  Orfordness-Shingle Street
-  Staverton Park & The Thicks, Wantisden

Map 2: SPAs where boundary falls within 20km of Ipswich Borough



- | | | | |
|---|-------------------------|---|-----------------------------------|
|  | Ipswich Borough | SPAs | |
|  | Alde-Ore Estuary |  | Outer Thames Estuary |
|  | Deben Estuary |  | Sandlings |
|  | Hamford Water |  | Stour and Orwell Estuaries |

Map 3: Ramsar sites where boundary falls within 20km of Ipswich Borough



Ipswich Borough

Ramsar sites

 **Aide-Ore Estuary**

 **Deben Estuary**

 **Hamford Water**

 **Stour and Orwell Estuaries**

- 1.55 In assessing the implications of any plan or project for European sites, it is essential to fully understand the ecology and sensitivity of the sites, in order to identify how they may be affected. This section and the accompanying detailed site information within Appendices 2 and 3 identifies those sites that could potentially be affected by the policies and proposals within the Ipswich Local Plan Review. Every European site has a set of 'interest features' which are the ecological features for which the site is designated or classified, and the features for which Member States should ensure the site is maintained or, where necessary restored.
- 1.56 Each European site also has a set of 'conservation objectives' for the site interest, i.e. what the site should be achieving in terms of restoring or maintaining the special ecological interest of European importance. Also relevant to the HRA is the consideration of how a plan or project may affect the achievement of conservation objectives for each European site. The site conservation objectives are relevant to any HRA, because they identify what should be achieved for the site, and a HRA may therefore consider whether any plan or project may compromise the achievement of those objectives. The background to conservation objectives and key considerations are explained in Appendix 2. Appendix 3 sets out the site interest features for each European site.
- 1.57 The Habitats Directive requires competent authorities to 'maintain and restore' European sites. Where sites are meeting their conservation objectives, the requirement is to maintain this position and not allow deterioration. Where a site requires restoration, competent authorities should work to bring site interest features back to a status that enables conservation objectives to be met. The supplementary advice published by Natural England for each European site provides the relevant targets for conserving and restoring European site interest features. This advice is referred to within the appropriate assessment sections.
- 1.58 In addition to conservation objectives, Natural England produces Site Improvement Plans (SIPs) for each European site in England as part of a wider programme of work under the 'Improvement Programme for England's Natura 2000 sites.' Each plan includes a set of actions for alleviating issues that are impeding the delivery of conservation objectives, with lead delivery bodies identified and indicative timescales. The SIPs can provide an additional useful reference for HRA work, identifying where there are site sensitivities. These have been reviewed to inform the appropriate assessment set out within this report.

2. Consideration of Site Allocations

- 2.1 All aspects of the emerging plan that influence sustainable development for the Ipswich Borough are checked through this assessment for risks to European sites. Risks need to be identified in order to inform the screening for likely significant effects. European sites are at risk if there are possible means by which any aspect of a plan can, when being taken forward for implementation, pose a potential threat to the wildlife interest of the sites. This is often referred to as the 'impact pathway' as it is an identifiable means by which the plan or project could potentially affect the European site.
- 2.2 All policies are checked as part of HRA, but of particular relevance is the quantum and location of proposed growth, as it is the nature, size and location of growth that can trigger particular impact pathways. GIS data showing allocations for the emerging Ipswich Local Plan at Final Draft Plan stage were provided to us by the Borough Council. These data showed locations for all development types, including housing and employment growth being proposed.
- 2.3 Map 4 shows the allocations and their proximity to the European sites. This enables a check for relevant potential pathways by looking at the growth that will come forward in close proximity to the European sites. Looking at sites on a map enables a consideration of site allocations and their geographical relationship to European sites in terms of distance and relevant features, such as whether within an existing urban area, for example. A precautionary distance of 1.5km has been used to examine each site allocation in more detail within this appropriate assessment. This is a precautionary distance, ensuring a thorough check has been made. The remainder of the site allocations fall within the 13km zone of influence currently being used to inform the RAM Strategy. As previously noted, the 13km zone covers the whole Borough and is applicable to any residential development. Non-residential development sites beyond 1.5km can therefore be screened out as impact pathways are unlikely.
- 2.4 Looking at site locations spatially enables consideration of the potential impact pathways that may be of relevance, serves to inform the screening of the plan for likely significant effects. These impact pathways are then considered in greater detail within the appropriate assessment.
- 2.5 It should be noted that the consideration of site allocations and Map 4 within this HRA report has been undertaken using available GIS data provided by Ipswich Borough Council during the preparation of the Final Draft plan. For the exact boundaries of site allocations, the actual plan documents should be referred to.

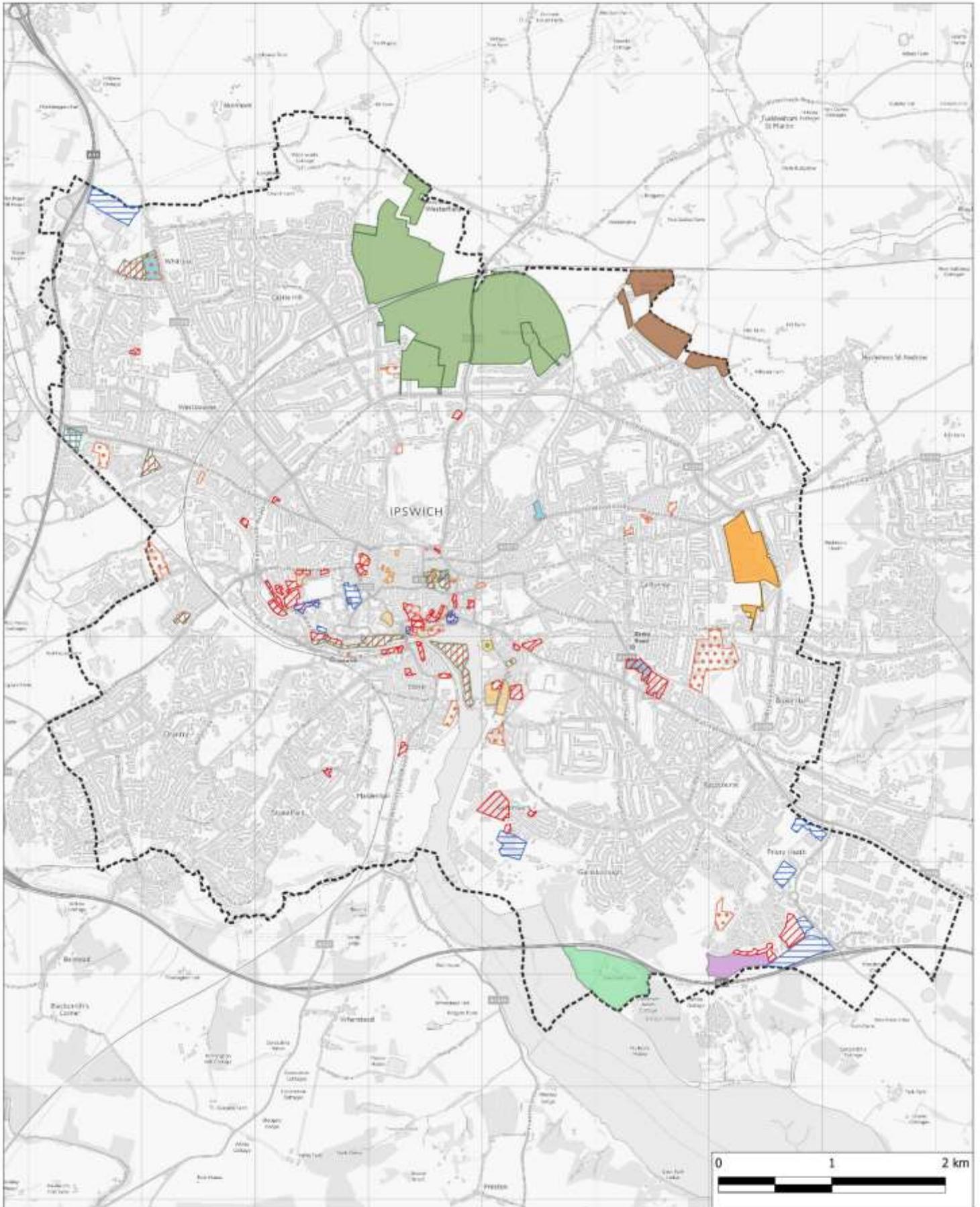
2.6 Table 2 provides the relevant impact pathways of consideration within this HRA. Some impact pathways for sites at a distance from the Ipswich Borough boundary are factors for which the site is sensitive but may not be relevant to growth in Ipswich due to distance (identified by brackets in Table 2). These are included here for completeness.

2.7 The appropriate assessment sections of this report consider these impact pathways in more detail. Recreation is relevant for all sites as discussed in the previous section. Urbanisation effects are relevant in close proximity to European sites. Water quality, water abstraction and water resources are potential impacts from the full quantum of growth within the emerging Local Plan.

Table 2: Summary of potential impact pathways - i.e. potential mechanisms where by the different European sites could be impacted. ? = possibly

Site	Recreation	Air quality	Water quality	Water abstraction	Urbanisation effects
Alde-Ore & Butley Estuaries SAC, Alde-Ore Estuary SPA, Alde-Ore Ramsar	✓	?	✓	✓	(✓)
Orfordness to Shingle Street SAC	✓		✓		(✓)
Sandlings SPA	✓	✓			(✓)
Stour and Orwell Estuaries SPA/Ramsar	✓	?	✓	✓	✓
Deben Estuary SPA/Ramsar	✓	?	✓	✓	(✓)

Map 4 Allocations



Legend

- | | | | |
|---------------------------|--|---------------------------|--|
| Ipswich Borough | Allocations: | Employment use | Residential use |
| Ipswich Garden Suburb | Car park | Extension to country park | Retail use |
| Heath Road Hospital site | Community use | Leisure use | Existing planning permission |
| Land at Humber Doucy Lane | Education and ancillary use/
Waterfront use | Open space | Potential for housing-led
redevelopment |

3. Screening for Likely Significant Effects

- 3.1 HRA is a step by step process, with the competent authority required to undertake screening for likely significant effects on European sites, after determining that the plan or project in question is not one that is entirely necessary for site management. Once relevant background information and potential impact pathways are understood, the HRA can progress to the screening for likely significant effects stage, fully informed by the background research undertaken. The screening for likely significant effects is undertaken on all policies within the plan. It is an initial check, made on a precautionary basis, to determine whether any part of the plan poses a risk to European sites in terms of its future implementation.
- 3.2 The currently adopted Ipswich Local Plan steers sustainable development in the Borough up to 2031, and the review will update policies based on the best currently available evidence and provide for development up to 2036. Whilst protection and enhancement of the natural environment is an integral part of sustainable development, the plan is not singularly focussed on European site management. The plan is therefore identified as not being for the management of European sites and HRA steps must therefore be undertaken. This commences with the screening for likely significant effects.
- 3.3 When a HRA is being undertaken on a plan or project that is initiated by the competent authority themselves, there is greater opportunity to identify potential issues arising from the plan or project in the initial stages of design or preparation. Where a competent authority is approving a project being proposed by another party, the application for permission is usually made when the proposal has already been designed and all details finalised, thus the opportunity to identify issues early on is more limited unless an applicant chooses to hold early discussions with the competent authority.
- 3.4 For the emerging Ipswich Local Plan, the Borough Council is both the plan proposer and the competent authority, thus allowing the HRA to influence the plan in its earlier stages, at later refining stages and up to submission for Examination.

What constitutes a likely significant effect?

- 3.5 At the screening stage of HRA, there is the opportunity to identify changes to the plan that could be made to avoid risks to European sites. Any requirement for assessing the effectiveness of changes should be made at the appropriate assessment stage. The screening for likely significant effects is an initial check to identify risks or uncertainties in policy wording and recommend any obvious

changes that can avoid those risks with clarifications, corrections or instructions for development project level HRA. Any recommendations that need to be justified in terms of effectiveness and applicability should be considered within the appropriate assessment stage of HRA. As described in Appendix 1, screening for likely significant effects is an initial check to identify risks and uncertainties that could potentially be significant for the European sites, and to recommend any obvious changes that can avoid those risks. Where risks cannot be avoided with simple clarifications, corrections or instructions for project level HRA, a more detailed assessment is undertaken to gather more information about the likely significant effects and give the necessary scrutiny to potential mitigation measures. This is the appropriate assessment stage of HRA.

- 3.6 The screening check of each aspect of the plan is essentially looking for two things to enable a conclusion of no likely significant effect;
- Whether it is possible to say with certainty that there are no possible impacts on European sites, or
 - Whether, in light of a potential risk, simple clarifications can be built into the policy and/or its supporting text, which serve to avoid any likely impacts.
- 3.7 If one of these can be met, it enables a competent authority to screen a policy out from further stages of assessment, subject to further checks as policies are refined. Where there is the potential for European sites to be affected, or mitigation measures need to be checked to ensure they are effective and appropriate, more detailed consideration is required and this then screens those aspects of the plan into the appropriate assessment.
- 3.8 A likely significant effect could be concluded on the basis of clear evidence of risk to European site interest, or there could be a scientific and plausible justification for concluding that a risk is present, even in the absence of direct evidence. The latter is a precautionary approach, which is one of the foundations of the high-level of protection pursued by EU policy on the environment, in accordance with the EU Treaty.⁵ The precautionary principle should be applied at all stages in the HRA process and follows the principles established in case law relating to the use of such a principle in applying the European Directives and domestic Habitats Regulations. In particular, the European Court in the ‘Waddensee’ case⁶ refers to “*no reasonable scientific doubt*” and the ‘Sweetman’ case⁷ the Advocate General identified that a positive conclusion on screening for

⁵ Article 191 of the Treaty on the Functioning of the EU. Previously Article 174 of the Treaty of the EC.

⁶ European Court of Justice case C - 127/02

⁷ European Court of Justice case C - 258/11

likely significant effects relates to where there *"is a possibility of there being a significant effect"*.

- 3.9 A recent European Court of Justice Judgment in 2018 (Case C-323/17) clarified that the need to carefully explain actions taken at each HRA stage, particularly at the screening for likely significant effects stage. The Judgment is a timely reminder of the need for clear distinction between the stages of HRA, and good practice in recognising the function of each. The screening for likely significant effects stage should function as a screening or checking stage, to determine whether further assessment is required. Assessing the nature and extent of potential impacts on European site interest features, and the robustness of mitigation options, should be done at the appropriate assessment stage.
- 3.10 Coöperatie Mobilisation (Joined Cases C-293/17 and C-294/17), which are now being generally referred to as "the Dutch Case" for nitrogen deposition, are also potentially relevant to plan level HRA. The European Court Judgment focusses on the fact that where a European site is already deteriorating, projects that then worsen the situation should not be approved, unless there are clear and definitive measures underway to restore the situation and maintain favourable conservation status.
- 3.11 The European Court was clear that measures should not be relied upon if they are uncertain, have not yet been carried out, are not certain to take place, or have poor scientific basis. Whilst the case relates to nitrogen deposition, the principles are generally applicable. The case highlights the need to have certainty in any measures being relied upon to allow a conclusion of no adverse effects where they are expected but not yet completed. Such measures need to be scientifically certain and secured (in terms of responsibility, finances, practical delivery etc.), rather than just forecasts.

Screening tables

- 3.12 Table 3 below records the conclusions drawn and recommendations made as a result of a policy by policy check for likely significant effects of the Ipswich Local Plan at Preferred Options stage, and then again at Final Draft Plan stage. The screening has been undertaken recognising that at both Preferred Options and Final Draft Plan stage, the emerging documents are presented as an update to the currently adopted DPDs with revised text. Table 3 therefore screens the Core Strategy and Policies DPD in full, along with a number of additional policies that are found in the Site Allocations DPD but that do not specifically relate to allocation sites.
- 3.13 Table 4 lists all site allocations, and the policies they relate to. The table provides the distance from the Stour and Orwell Estuary SPA/Ramsar. Policies within the

Site Allocations DPD that do not relate to these allocations are screened within Table 3.

- 3.14 Potential risks are highlighted within the screening table and this is on a precautionary basis to flag topics for appropriate assessment. Some potential impact pathways, such as recreation, are identified due to the combined effect of that impact arising from growth, others, such as urbanisation, may be significant from an individual site allocation. In close proximity, an impact may be significant alone, whereas at a greater distance may only become significant in-combination. The screening tables refer to a quantum of growth or growth in general where combined impacts are highlighted as being significant.
- 3.15 For a number of policies, the screening at both Preferred Options and Final Draft Plan stages identified likely significant effects. These can be categorised as follows:
- For policies that do not set a quantum of development or specific locations, the potential for significant effects relates to the possibility of development coming forward in a particular location or with particular characteristics. In such instances, the risks may be simply avoided with straightforward clarifications, which remove any uncertainty. The recommendations add text to the policy to explain how the policy should be implemented to prevent adverse effects. This does not exclude the need for project level HRA but will enable a conclusion of no likely significant effects at the plan level, because the identified risks to European sites have been removed. Project level HRA provides a means of checking for any further risks unforeseen at the plan level, and for developing project specific mitigation measures in greater detail within a project level appropriate assessment.
 - For policies that do set a quantum of development or specific locations, the risks are primarily related to recreation pressure, but there are also potential impact pathways relating to urbanisation effects, water and air quality. The further detailed assessment of these impact pathways is to be discussed in more detail in the appropriate assessment chapters.
- 3.16 The screening table at Table 3 considers all policies individually, apart from site allocations, which are considered collectively on the basis of distance at Table 4. The site allocations have been sorted within Table 4 to highlight those in closest proximity. This does not flag any risks that may deem the principle of the allocation a risk to European site interest, but rather that those in closest proximity, and out to a precautionary distance of 1.5km, should be checked in more detail as part of the appropriate assessment to establish whether there

are specific constraints or project level HRA evidence needs that should be highlighted within the site allocation policy or its supporting text.

- 3.17 The screening tables below provide a record of screening of the entire plan at Preferred Options stage, and then again at Final Draft Plan stage. The screening considers the update to the Core Strategy and the newly proposed set of preferred site applications, which includes a number of new sites in addition to those within the adopted DPD. The screening for both stages has been undertaken prior to the finalisation of the documents for public consultation at Regulation 18 stage and again at Regulation 19 stage. The re-screen of the plan at Regulation 19 consultation checks any amendments to the plan made by the Council in response to this HRA report at Preferred Options stage and discussions between Footprint Ecology and the Planning Officers. The appropriate assessment of all risks identified as requiring further assessment in the screening table then follows the screening stage.
- 3.18 There may also be a need to undertake further updates to this HRA, either to inform the Examination in Public and/or on any proposed modifications which arise during the Examination of the plan, prior to adoption. This ensures that the final adopted plan has an up to date HRA report.
- 3.19 It should be noted that Table 4 provides a summary of the site allocation information, and the site sheets within the Site allocations DPD should be referred to for the more comprehensive detail relating to each site. For example, the main use type proposed for the site, such as residential or employment, is listed in the screening table, but there may be a number of additional uses that are not fully listed here.

Table 3: Screening for likely significant effects (LSE) – at Preferred Options (Regulation 18) and Final Draft Plan (Regulation 19) stages

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
Introduction	No LSE Context setting includes importance of European sites	N/A	Recommend adding text to give greater emphasis to biodiversity net gain	Recommend adding text at next plan iteration to give an up to date account of the status of the RAMS and legislative and policy context, and update sections relating to HRA.	<u>Regulation 18 recommendations carried forward.</u> SA issues added include matters relating to the natural environment and ecosystem services.
Vision and objectives	No LSE Vision includes importance of and expansion of biodiversity assets and climate change adaptation. Objectives refer to expansion of the ecological network. Key diagram identifies the Orwell Estuary designation	N/A	N/A	N/A	N/A
ISPA1 Growth in the Ipswich Strategic Planning Area	LSE Key policy setting out the proposed growth in Ipswich and the wider planning area.	Quantum and location of development could pose risks in terms of air and water pollution, water resources, recreation and urbanisation impacts	Supporting text could make reference to the Ipswich strategic planning area authorities working collaboratively to protect biodiversity as well as secure the right level of growth.	Location of growth needs to be checked. Housing growth needs to be compared with current RAMS housing numbers. Consideration at appropriate assessment in terms of overall quantum of growth and ability of RAMS to mitigate.	Appropriate assessment

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
ISPA2 Strategic Infrastructure Priorities	No LSE Policy commits to collaborative working with partners on large schemes, and many of these will need project level HRA	Depending on location of development, could pose risks in terms of air pollution, water pollution where there are drainage pathways to the Orwell Estuary. Additional disturbance on the Orwell Estuary is also possible.	Large infrastructure schemes present an ideal opportunity for biodiversity enhancements and specific reference should be made in supporting text to an expectation for early consideration of biodiversity net gain in project design.	The highlighted risks are not such that they can be assessed at the plan level. Clarification to remove LSE - Add within supporting text a reference to joint working by public bodies for HRA purposes.	The highlighted risks are not such that they can be assessed at the plan level. Regulation 18 recommendation now undertaken – text added.
ISPA3 Cross-boundary Mitigation of Effects on Protected Habitats and Species	LSE until HRA finalised A protective policy specifically for European sites but may need revisiting.	Robustness of mitigation to protect against new growth needs checking.	N/A	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings.	Appropriate assessment
ISPA4 Cross boundary Working to Deliver Sites	LSE An area safeguarded for future development on the northern edge of the Borough, that would be planned for jointly with East Suffolk. A large-scale development has potential for effects on European sites.	Full range of impact pathways - air and water pollution, water resources, recreation and urbanisation impacts	A large development presents an ideal opportunity for biodiversity enhancements and specific reference should be made in supporting text to an expectation for early consideration of biodiversity net gain in project design	Policy and supporting text should introduce the need to make an early assessment of potential risks and potential requirements for SANGs	<u>Regulation 18 recommendations carried forward</u> Text updates include strategic GI, but policy should make specific reference to the potential need for SANG and then reference to SANG in supporting text in relation to master planning. Biodiversity net gain text has now been added.
CS1	No LSE	Misinterpretation of legislative requirements	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
Sustainable Development	Reference made to application of protective policies for the natural environment. Positive wording in supporting text relation to factors such as climate change GI, biodiversity etc.				Additional supporting text strengthens the policy in relation to the natural environment and ecosystem services.
CS2 The Location and Nature of Development	No LSE Growth is focussed towards the town centre of Ipswich and larger sites to the north. Sites in closer proximity to the Orwell Estuary are considered in site specific screening below.	Whilst growth presents risks, this policy describes overall growth locations and does not add additional risks to European sites	N/A	N/A	N/A
CS3 IP-One Area Action Plan	No LSE IP-One is a defined area around Ipswich town where growth and regeneration is focussed.	Whilst growth presents risks, this policy describes overall growth locations and does not add additional risks to European sites	N/A	N/A	N/A
CS4 Protecting our Assets	LSE until HRA finalised This is the key policy for the natural environment and may need revisiting.	Robustness of mitigation to protect against new growth needs checking, but also need to ensure wider biodiversity assets are adequately protected to underpin designated site network	Recommend adding text at next plan iteration to give greater emphasis to biodiversity net gain in accordance with NPPF 2018	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings	Appropriate assessment Note need to refer to the Habitats Regulations as 2017, as amended.

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
CS5 Improving Accessibility	No LSE Qualitative and encourages sustainable access options	Some projects may need protect level HRA.	N/A	N/A	N/A
CS6 The Ipswich Policy Area	POLICY DELETED	N/A	N/A	N/A	N/A
CS7 The Amount of New Housing Required	LSE Key policy setting out the proposed quantum growth in Ipswich. 8,010 new homes over the plan period 2018 to 2036. A stepped annual target of 300 per year for the first 6 years and then 518 per year over the following 12 years.	Quantum of development could pose risks in terms of air and water pollution, water resources, recreation and urbanisation impacts	N/A	Quantum of growth the needs to be checked. Housing growth needs to be compared with current RAMS housing numbers. Consideration at appropriate assessment in terms of overall quantum of growth and ability of RAMS to mitigate.	Appropriate assessment
CS8 Housing Type and Tenure	No LSE The housing type and tenure does not affect the overall conclusion of LSE for any housing growth, which is covered by other policies.	All housing/accommodation types and tenure need to contribute to the RAMS (including traveller pitches, student accommodation, affordable housing, park homes etc.).	N/A	N/A	N/A
CS9 Previously Developed Land	POLICY DELETED	N/A	N/A	N/A	N/A
CS10 Ipswich Garden Suburb	LSE Whilst the IGS has been assessed in detail as	Mitigation measures need to be delivered in time with development coming forward	N/A	Progress check to be included in the appropriate assessment.	Appropriate assessment

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
	part of the RAMS and planning applications, progress with mitigation measures needs to be checked as part of this HRA				
CS11 Gypsy and Traveller Accommodation	LSE There is a need to ensure that permanent pitches are assessed in terms of additional recreation pressure, which could be mitigated for as part of the RAMS	All residential types of development need to contribute to the RAMS – need to check there is an understanding of inclusion of pitches	N/A	Consideration at appropriate assessment in terms of overall quantum of growth and ability of RAMS to mitigate.	Appropriate assessment
CS12 Affordable Housing	No LSE The housing type and tenure does not affect the overall conclusion of LSE for any housing growth, which is covered by other policies.	All housing/accommodation types and tenure need to contribute to the RAMS (including traveller pitches, student accommodation, affordable housing, [park homes etc.).	N/A	N/A	N/A
CS13 Planning for Jobs Growth	LSE New or redeveloped employment sites have the potential to add pressure to the Orwell Estuary if in close proximity	Potential for increased air and water pollution concerns and also disturbance if in close proximity	N/A	Consideration at appropriate assessment in terms of site locations.	Appropriate assessment
CS14 Retail Development and	No LSE Town centre focussed development unlikely	Need for project level HRA should however be checked	N/A	N/A	N/A

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
Main Town Centre Uses	to lead to impact pathways.				
CS15 Education Provision	No LSE Development type unlikely to lead to impact pathways.	Need for project level HRA should however be checked	N/A	N/A	N/A
CS16 Green Infrastructure, Sport and Recreation	LSE until HRA finalised A policy that will provide for some mitigation measures (Country Park at IGS and Orwell Country Park improvements), therefore may need revisiting.	Inclusion of mitigation to protect against new growth needs checking	N/A	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings	Appropriate assessment. Paragraph added to supporting text in relation to the RAMS. Amend last sentence to <i>'instances where on-site mitigation is <u>required in addition to a financial contribution.</u>'</i>
CS17 Delivering Infrastructure	No LSE Qualitative and includes reference to environmental infrastructure	N/A	N/A	N/A	N/A
CS18 Strategic Flood Defence	LSE Flood defence works could risk harm to the Orwell Estuary	Direct or indirect habitat loss and disturbance, water and air pollution	N/A	Evidence documents relating to flood defence to be considered in the appropriate assessment	Appropriate assessment.
CS19 Provision of Health Services	No LSE Development type unlikely to lead to impact pathways.	Need for project level HRA should however be checked	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
CS20 Key Transport Proposals	No LSE Policy lists sustainable transport initiatives and commits to collaborative working with partners on transport proposals. Some initiatives may need project level HRA, but overall will contribute to reduced traffic emissions.	Depending on location of development, transport projects could pose risks in terms of air pollution, water pollution where there are drainage pathways to the Orwell Estuary. Additional disturbance on the Orwell Estuary is also possible.	N/A	The highlighted risks are not such that they can be assessed at the plan level. Clarification to remove LSE - Add within supporting text a reference to project level HRA.	Recommendation changed to no LSE, as policy has substantially changed from Reg 18, and now only lists a range of sustainable transport enhancements rather than specific transport projects. Note that where the projects are listed in other strategic documents, HRA should be applied at both the plan and project level.
DM1 Sustainable Construction	No LSE Development type unlikely to lead to impact pathways.	Need for project level HRA should however be checked	N/A	N/A	N/A
DM2 Decentralised Renewable or Low Carbon Energy	No LSE Development type unlikely to lead to impact pathways. Environmentally positive policy requiring decentralised or low carbon technologies.	Need for project level HRA should however be checked	N/A	N/A	N/A
DM3 Air Quality	LSE until HRA finalised This is the key policy for setting out any air quality mitigation measures, if required,	Policy needs to provide adequate air quality protection for European sites	N/A	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings	Appropriate assessment. Policy strengthened with reference to potential impacts of air quality deterioration on biodiversity,

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
	and may need revisiting.				including European sites and the need for assessment of protects accordingly.
DM4 Development and Flood Risk	LSE until HRA finalised This is the key policy for setting out any flood risk mitigation measures, if required, and may need revisiting.	Policy needs to provide adequate flood risk protection for European sites	N/A	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings	Appropriate assessment. Policy strengthened with reference to securing SUDs and certainty in WWTW capacity, and also surface water management to protect European sites.
DM5 Protection of Open Spaces, Sport and Recreation	No LSE Protective policy for existing assets	N/A	N/A	N/A	N/A
DM6 Provision of New Open Spaces, Sport and Recreation	No LSE New open space assets will provide recreation provision that complements the RAMS Any need for SANGs is linked to specific allocations (IGS and potential future broad locations for growth)	N/A	New open spaces have significant enhancement opportunities for biodiversity which could be referred to in supporting text	N/A	N/A
DM7 Provision of Private Outdoor Amenity Space in New and Existing Developments	No LSE Development type unlikely to lead to impact pathways.	N/A	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
DM8 The Natural Environment	LSE until HRA finalised This is the second key policy for the natural environment, alongside the strategic policy, and may need revisiting.	Robustness of mitigation to protect against new growth needs checking, but also need to ensure wider biodiversity assets are adequately protected to underpin designated site network	Recommend adding text at next plan iteration to give greater emphasis to biodiversity net gain in accordance with NPPF 2018	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings	<p>Policy and supporting text notably strengthened with clear reference to biodiversity net gain requirements and explanation of biodiversity enhancement options.</p> <p>Suggest adding habitat creation, restoration or connection of fragmented habitats into paragraph 9.8.4 as options for larger developments. Bird and bat boxes should only be for small householder developments, with larger proposals providing more significant gains for biodiversity.</p> <p>Note need to refer to Habitats Regulations 2017, as amended.</p>
DM9 Protection of Trees and Hedgerows	No LSE Protective and enhancing policy for the natural environment	N/A	N/A	N/A	<p>N/A</p> <p>Additional text is positive for the natural environment, which in turn supports designated sites.</p>
DM10 Green Corridors	No LSE	N/A	N/A	N/A	N/A

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
	Protective and enhancing policy for the natural environment				Additional text is positive for the natural environment, which in turn supports designated sites.
DM11 Countryside	No LSE Protective and enhancing policy for the natural environment	N/A	N/A	N/A	N/A
DM12 Design and Character	No LSE. Qualitative policy, does not add new development, and requires natural features to be retained and enhanced.	N/A	Policy already refers to biodiversity enhancements	N/A	N/A Additional text is positive for the natural environment, which in turn supports designated sites.
DM13 Built Heritage and Conservation	No LSE. Protective policy, does not add new development	N/A	N/A	N/A	N/A
DM14 Archaeology	No LSE. Protective policy, does not add new development	N/A	N/A	N/A	N/A
DM15 Tall Buildings	No LSE. Qualitative policy, does not add new development	N/A	N/A	N/A	N/A
DM16 Extensions to Dwellings and Provision of Ancillary Buildings	No LSE Development type unlikely to lead to impact pathways.	N/A	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
DM17 Small Scale infill and Backland Residential Developments	No LSE The housing development type does not affect the overall conclusion of LSE for any housing growth, which is covered by other policies.	All housing types and tenure need to contribute to the RAMS	N/A	N/A	N/A
DM18 Amenity	No LSE. Qualitative policy, does not add new development	N/A	N/A	N/A	N/A
DM19 The Subdivision of Family Dwellings	LSE All net increase in housing needs to contribute to RAMS	All net increases in housing needs to contribute to the RAMS, this may not be understood for multiple occupation conversions	N/A	Add to supporting text to highlight the need for contribution to RAMS	<u>Regulation 18 recommendations carried forward to enable removal of LSE</u>
DM20 Houses in Multiple Occupation	LSE All net increase in housing needs to contribute to RAMS	All net increases in housing needs to contribute to the RAMS, this may not be understood for multiple occupation conversions	N/A	New policy added at Reg 19.	Add to supporting text to highlight the need for contribution to RAMS
DM21 Transport and Access in New Developments	No LSE. Qualitative policy, does not add new development	N/A	N/A	N/A	N/A
DM22 Car and Cycle Parking in New Development	No LSE. Qualitative policy, does not add new development	N/A	N/A	N/A	N/A
DM23 Density of Residential Development	No LSE The density of housing development does not affect the overall conclusion of LSE for	All housing types and tenure need to contribute to the RAMS	N/A	N/A	N/A

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
	any housing growth, and the need to contribute to RAMS.				
DM24 Protection and Provision of Community Facilities	No LSE. Qualitative and protective policy, does not add new development	N/A	N/A	N/A	N/A
DM25 Shopfront Design	No LSE. Qualitative policy, does not add new development	N/A	N/A	N/A	N/A
DM26 Advertisement	No LSE. Qualitative policy, does not add new development	N/A	N/A	N/A	N/A
DM27 The Central Shopping Area	No LSE Development type unlikely to lead to impact pathways.	N/A	N/A	N/A	N/A
DM28 Arts, Culture and Tourism	No LSE Development type unlikely to lead to impact pathways. Tourism relates to attraction features rather than accommodation	N/A	N/A	N/A	N/A
DM29	No LSE	N/A	N/A	N/A	N/A

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
The Evening and Night-time Economy	Development type unlikely to lead to impact pathways.				
DM30 District and Local Centres	No LSE Development type unlikely to lead to impact pathways.	N/A	N/A	N/A	N/A
DM31 Town Centre Uses Outside the Central Shopping Area	No LSE Development type unlikely to lead to impact pathways.	N/A	N/A	N/A	N/A
DM32 Retail Proposals Outside Defined Centres	No LSE Development type could pose risks that should be dealt with at the project level. Policy itself does not promote this specific development or any location	Need for project level HRA should be checked	N/A	N/A	N/A
DM33 Protection of Employment Land	No LSE Safeguarding existing sites. New sites considered under allocations	N/A	N/A	N/A	N/A
DM34 Delivery and Expansion of Digital	No LSE Development type could pose risks that should be dealt with at the project level. Policy	Need for project level HRA should be checked	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
Communication Networks	itself does not promote this specific development or any location				
Implementation, Monitoring and Review	LSE The incorporation of monitoring and review criteria for the natural environment should be checked and may need revisiting.	Monitoring of mitigation to protect against new growth needs to provide usable data that informs future review of mitigation approaches		This section may be revisited to check it is fit for purpose in view of assessment findings	Recommend a link is made between RAMS monitoring and review and local plan monitoring and review, so that RAMS informs local plan monitoring. Also recommend inclusion of biodiversity net gain monitoring.
Appendices	No LSE Informative only	N/A	N/A	N/A	N/A
Site Allocations DPD policies in addition to allocations	See Table 4 for LSE screening of site allocations				
Introduction	No LSE Context setting for the site allocations, complements the Core Strategy, which will be read together	N/A	N/A	N/A	N/A
SP1 The Protection of Allocated Sites	No LSE High level qualitative policy referring to the safeguarding of allocations. Policy itself does not influence development	N/A	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
SP2 Land Allocated for Housing	<p>LSE</p> <p>Sets a net increase of 6,100 additional dwellings up to 2036, the new plan period. Net after consideration of commitments and completions from the overall housing figure.</p> <p>Individual site allocations checked in Table 4 below.</p>	Quantum and location of development could pose risks in terms of air and water pollution, water resources, recreation and urbanisation impacts	N/A	Location of growth needs to be checked. Housing growth needs to be compared with current RAMS housing numbers. Consideration at appropriate assessment in terms of overall quantum of growth and ability of RAMS to mitigate.	Appropriate assessment
SP3 Land with Planning Permission or Awaiting S106	<p>LSE</p> <p>All additional residential development should be adhering to the RAMS</p>	RAMS not applied	N/A	N/A	<p>Consistent application of RAMS and collection of developer contributions to fund strategic mitigation.</p> <p>Any other matters should have been dealt with through any project level HRA</p>
SP4 Opportunity Sites	<p>LSE</p> <p>All additional residential development should be adhering to the RAMS. Opportunity sites included in Table 4 below. All over 1km from the Orwell Estuary</p>	RAMS not applied	N/A	N/A	Appropriate assessment to check RAMS capacity

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
SP5 Land Allocated for Employment Use	LSE All sites are over (or very close to) 1km away from the Orwell Estuary, ruling out urbanisation impacts. Risk of cumulative impacts on air quality and water are checked in the appropriate assessment	N/A	N/A	N/A	Appropriate assessment check for cumulative impacts from air quality deterioration through traffic emissions and any impacts on water.
SP6 Land Allocated and Protected as Open Space	No LSE Protective of open space, which in turn will absorb some small-scale daily recreation needs such as dog walking.	N/A	N/A	N/A	N/A
SP7 Land Allocated for Leisure Uses or Community Facilities	No LSE Use does not generate any impact pathways	N/A	N/A	N/A	N/A
SP8 Orwell Country Park Extension	LSE until HRA finalised This policy relates to Orwell Country Park and the proposed extension, which is an important natural greenspace to provide recreation that might otherwise be directed to the Orwell Estuary.	The park has some enhancement proposals that feature within the RAMS, and the extension project has potential benefits for diverting recreation pressure, particularly for housing allocations in close proximity. The park abuts the Orwell Estuary.	N/A	This policy may be revisited after appropriate assessment to check it is fit for purpose in view of assessment findings	Appropriate assessment

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
SP9 Safeguarding Land for Transport Infrastructure	No LSE Either site specific requirements or sustainable transport enhancements. No impact pathways	N/A	N/A	N/A	N/A
SP10 Retail Site Allocations	No LSE Urban focused retail development. No impact pathways	N/A	N/A	N/A	N/A
SP11 The Waterfront	No LSE Development type could pose risks that should be dealt with at the project level. Policy itself does not promote this specific development or any location	Need for project level HRA should be checked	N/A	N/A	N/A
SP12 Education Quarter	No LSE Development type could pose risks that should be dealt with at the project level. Policy itself does not promote this specific development or any location	Need for project level HRA should be checked	N/A	N/A	N/A
SP13 Portman Quarter	No LSE Development type could pose risks that should be dealt with at the project level. Policy	Need for project level HRA should be checked	N/A	N/A	N/A

Ipswich Local Plan Review HRA

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
	itself does not promote this specific development or any location				
SP14 Arts, Culture and Tourism	No LSE Development type unlikely to lead to impact pathways. Tourism relates to attraction features rather than accommodation	N/A	N/A	N/A	Policy now deleted and text moved to sit with the relevant development management policies.
SP15 Improving Pedestrian and Cycle Routes	No LSE Development type unlikely to lead to impact pathways, unless in close proximity to the Orwell Estuary.	Need for project level HRA should be checked	N/A	N/A	N/A Additions at Regulation 19 strengthen focus on non-car modes of transport, which is environmentally positive
SP16 Transport Proposals in IP-One	LSE Additional crossing proposal has both construction and operational risks	Orwell Estuary disturbance, air and water pollution	N/A	Policy needs to make specific reference to risks to European sites and the need for early assessment to inform design, as part of project level HRA	N/A Additions at Regulation 19 strengthen focus on non-car modes of transport, which is environmentally positive
SP17 Town Centre Car Parking	No LSE Development type unlikely to lead to impact pathways.	N/A	N/A	N/A	N/A

Policy or section of the plan	LSE screening	Potential risks	Potential enhancement opportunities	Recommendations at Preferred Options (Regulation 18)	Recommendations and actions taken for Regulation 19
IP-One Opportunity Areas	LSE IP-One opportunity area forms part of the adopted Local Plan but poses individual project risks	Orwell Estuary disturbance, air and water pollution and recreation	N/A	Projects descriptions close to and within the waterfront need to reference to risks to European sites and the need for early assessment to inform design, as part of project level HRA	<u>Regulation 18 recommendations carried forward.</u>
Implementation and Monitoring and Appendices	No LSE Informative only	N/A	N/A	N/A	Linking to RAMS monitoring and review would be beneficial.

Table 4 Distance of site allocations from Stour and Orwell Estuary SPA/Ramsar at Final Draft Plan (Regulation 19) stage.

Note that distance is measured 'as the crow flies.'

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings
0.001	IP149	Land at Pond Hall Farm	SP8	Land allocated for country park extension	0
0.398	IP067b	Former British Energy Site, Cliff Quay	SP5	Land allocated for employment use	0
0.459	IP143	Former Norsk Hydro, Sandy Hill Lane	SP2	Land allocated for residential use	85
0.515	IP067a	Former British Energy Site, Cliff Quay	SP2	Land allocated for residential use	17
0.750	IP150b	Land south of Ravenswood	SP7	Land allocated for leisure use	0
0.774	IP125	Corner of Hawke Road and Holbrook Road	SP2	Land allocated for residential use	15
0.845	IP080	240 Wherstead Road	SP2	Land allocated for residential use	27
0.993	IP152	Airport Farm Kennels, north of A14	SP5	Land allocated for employment use	0
1.000	IP307	Prince of Wales Drive	SP2	Land allocated for residential use	12
1.029	IP150d	Land south of Ravenswood (west - Sports Park)	SP2	Land allocated for residential use	34
1.059	IP042	Land between Cliff Quay and Landseer Road	SP3	Land with planning permission	222
1.115	IP150a	Areas U, V & W, Ravenswood	SP3	Land with planning permission	94

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings
1.120	IP200	Bath Street (Griffin Wharf)	SP3	Land with planning permission	113
1.184	IP150e	Land south of Ravenswood	SP2	Land allocated for residential use	126
1.322	IP037	Island Site	SP2	Land allocated for residential use	421
1.322	IP037	Island Site	SP6	Land allocated for open space, leisure	0
1.326	IP045	Land bounded by Cliff/Toller/Holywells Road	SP4	Land with the potential for housing-led redevelopment	148
1.339	IP150c	Land south of Ravenswood	SP5	Land allocated for employment use	0
1.370	IP226	Helena Road	SP4	Land with the potential for housing-led redevelopment	337
1.488	IP064a	Land between Holywells Road and Holywells Park	SP2	Land allocated for residential use	66
1.518	IP098	Transco, south of Patteson Road	SP2	Land allocated for residential use	62
1.537	IP133	South of Felaw Street	SP2	Land allocated for residential use	45
1.547	IP309	Bridgeward Social Club, 68a Austin Street	SP2	Land allocated for residential use	15
1.676	IP039a	Land between Gower Street and Great Whip Street	SP2	Land allocated for residential use	45
1.702	IP141a	Land at Futura Park, Nacton Road	SP5	Land allocated for employment use	0
1.748	IP142	Duke Street	SP6	Land allocated for open space	0
1.748	IP142	Duke Street	SP3	Land with planning permission	44
1.759	IP031b	22 Stoke Street IP2 8BX	SP2	Land allocated for residential use	18
1.759	IP031a	Car Park, Burrell Road	SP2	Land allocated for residential use	20
1.811	IP169	23-25 Burrell Road	SP3	Land with planning permission	4
1.811	IP188	Websters Saleyard site, Dock Street	SP2	Land allocated for residential use	9
1.837	IP047	Land at Commercial Road	SP6	Land allocated for open space	0
1.837	IP047	Land at Commercial Road	SP2	Land allocated for residential use	173
1.839	IP049	Shed 8, Orwell Quay	SP12	Land allocated for education and ancillary use/ waterfront use	0
1.875	IP049	Shed 8, Orwell Quay	SP17	Land allocated for car park	0
1.885	IP206	Cranfields	SP3	Land with planning permission	134
1.897	IP211	Regatta Quay	SP3	Land with planning permission	156
1.899	IP205	Burton's College Street	SP3	Land with planning permission	14
1.905	IP136	Silo, College Street	SP2	Land allocated for residential use	48
1.911	IP014	Hope Church, Fore Hamlet	SP2	Land allocated for residential use	23
1.912	IP132	Former St Peters Warehouse site, 4 Bridge Street	SP2	Land allocated for residential use	73

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings
1.912	IP132	Former St Peters Warehouse site, 4 Bridge Street	SP5	Land allocated for employment use	0
1.917	IP083	Banks of river, upriver from Princes Street	SP6	Land allocated for open space	0
1.940	IP015	West End Road Surface Car Park	SP2	Land allocated for residential use	67
1.951	IP066	J J Wilson, White Elm Street	SP2	Land allocated for residential use	55
1.973	IP035	Key Street/Star Lane/Burtons (St Peters Port)	SP2	Land allocated for residential use	86
1.989	IP028b	Jewson Ltd, Greyfriars Road IP1 1UP	SP4	Land with the potential for housing-led redevelopment	40
2.024	IP043	Commercial Buildings, Star Lane	SP2	Land allocated for residential use	50
2.024	IP043	Commercial Buildings, Star Lane	SP5	Land allocated for employment use	0
2.029	IP011b	Smart Street (south)/Foundation St	SP2	Land allocated for residential use	56
2.034	IP054b	Land between Old Cattle Market and Star Lane	SP2	Land allocated for residential use	40
2.035	IP015	West End Road Surface Car Park	SP17	Land allocated for car park	0
2.054	IP052	Land between Lower Orwell Street & Star Lane	SP4	Land with the potential for housing-led redevelopment	29
2.067	IP054a	30 Lower Brook Street	SP3	Land with planning permission	62
2.086	IP010b	Felixstowe Road (237 to 297)	SP2	Land allocated for residential use	62
2.093	IP094	Rear of Grafton House, Russell Road	SP5	Land allocated for employment use	0
2.096	IP011c	Smart Street/Foundation Street (north)	SP2	Land allocated for residential use	7
2.100	IP011a	Lower Orwell Street, Former Gym and Trim (formerly Smart Street/Foundation Street)	SP2	Land allocated for residential use	18
2.168	IP089	Waterworks Street	SP2	Land allocated for residential use	23
2.172	IP010a	Former Co-op Depot, Felixstowe Road	SP7	Land allocated for community use	0
2.172	IP010a	Former Co-op Depot, Felixstowe Road	SP2	Land allocated for residential use	75
2.187	IP012	Peter's Ice Cream, Grimwade Street	SP2	Land allocated for residential use	35
2.204	IP051	Old Cattle Market, Portman Road (south)	SP5	Land allocated for employment use	0
2.275	IP051	Old Cattle Market, Portman Road (south)	SP17	Land allocated for car park/hotel/leisure	0
2.311	IP048a	Mint Quarter/Cox Lane East Regeneration Area	SP2	Land allocated for residential use	53
2.311	IP048a	Mint Quarter/Cox Lane East Regeneration Area	SP6	Land allocated for open space	0
2.319	IP004	Bus Depot, Sir Alf Ramsey Way	SP2	Land allocated for residential use	48
2.319	IP004	Bus Depot, Sir Alf Ramsey Way	SP5	Land allocated for employment use	0
2.322	IP048b	Mint Quarter/Cox Lane West Regeneration Area	SP2	Land allocated for residential use	36

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings
2.322	IP048b	Mint Quarter/Cox Lane West Regeneration Area	SP10	Land allocated for retail use	0
2.322	IP048b	Mint Quarter/Cox Lane West Regeneration Area	SP6	Land allocated for open space	0
2.328	IP116	St Clement's Hospital Grounds	SP3	Land with planning permission	108
2.375	IP283	25 Grimwade St, Club & Car Park, Rope Walk	SP3	Land with planning permission	14
2.381	IP348	Upper Princes Street	SP10	Land allocated for retail use	0
2.384	IP048b	Mint Quarter/Cox Lane	SP17	Land allocated for car park	0
2.386	IP120b	Land west of West End Road	SP2	Land allocated for residential use	103
2.391	IP074	Land at Upper Orwell Street	SP3	Land with planning permission	9
2.405	IP048a	Mint Quarter/Cox Lane East Regeneration Area	SP7	Land allocated for community use	0
2.425	IP003	Waste tip and employment area north of Sir Alf Ramsey Way	SP2	Land allocated for residential use	114
2.428	IP048c	Mint Quarter/Cox Lane West	SP3	Land with planning permission	33
2.457	IP119	Land east of West End Road	SP2	Land allocated for residential use	28
2.481	IP041	Former Police Station, Civic Drive	SP2	Land allocated for residential use	58
2.498	IP245	12-12a Arcade Street	SP3	Land with planning permission	7
2.550	IP355	77-79 Cullingham Road	SP2	Land allocated for residential use	6
2.551	IP354	72 (Old Boatyard) Cullingham Road IP1 2EG	SP2	Land allocated for residential use	24
2.552	IP279b(2)	Former British Telecom Offices, Bibb Way	SP2	Land allocated for residential use	29
2.562	IP279a	Former British Telecom Offices, Bibb Way	SP3	Land with planning permission	104
2.564	IP040	Former Civic Centre, Civic Drive	SP10	Land allocated for retail use	0
2.564	IP040	Former Civic Centre, Civic Drive	SP2	Land allocated for residential use	59
2.583	IP096	Car Park, Handford Road	SP2	Land allocated for residential use	22
2.615	IP347	Mecca Bingo, Lloyds Avenue	SP10	Land allocated for retail use	0
2.624	IP279b(1)	Former British Telecom Office, Bibb Way	SP2	Land allocated for residential use	18
2.643	IP172	15-19 St Margaret's Green	SP2	Land allocated for residential use	9
2.658	IP214	Old Foundry Road	SP3	Land with planning permission	12
2.875	IP061	Former school site, Lavenham Road	SP2	Land allocated for residential use	23
2.875	IP061	Former school site, Lavenham Road	SP6	Land allocated for open space	0
3.044	Safeguard	Heath Road Hospital site	CS19	Safeguarded for health	0
3.065	IP129	BT Depot, Woodbridge Road	SP7	Land allocated for community use	0
3.231	IP105	Depot, Beaconsfield Road	SP2	Land allocated for residential use	15
3.247	IP088	79 Cauldwell Hall Road	SP3	Land with planning permission	17

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings
3.277	IP059	Arclion House and Elton Park, Hadleigh Road	SP3	Land with planning permission	103
3.325	IP135	112-116 Bramford Road	SP2	Land allocated for residential use	19
3.426	IP131	Milton Street	SP3	Land with planning permission	9
3.523	IP161	2 Park Road	SP3	Land with planning permission	14
3.589	IP109	Rear of Jupiter Road and Reading Road	SP3	Land with planning permission	13
3.772	IP106	391 Bramford Road	SP3	Land with planning permission	11
3.836	IP009	Victoria Nurseries, Westerfield Road	SP2	Land allocated for residential use	12
4.048	Urban extension	Ipswich Garden Suburb	CS10	Land allocated for mixed use (outline permissions given)	3500
4.069	IP033	Land at Bramford Road (Stock's site)	SP6	Land allocated for open space	0
4.069	IP033	Land at Bramford Road (Stock's site)	SP2	Land allocated for residential use	55
4.231	IP256	Artificial Hockey Pitch, Sports Club, Henley Road	SP3	Land with planning permission	28
4.360	IP165	Eastway Business Park, Europa Way	SP3	Land with planning permission	78
4.630	IP029	Land Opposite 674-734 Bramford Road	SP6	Land allocated for open space	0
4.630	IP029	Land Opposite 674-734 Bramford Road	SP2	Land allocated for employment use	0
4.830	ISPA4.1	Land at Humber Doucy Lane	ISPA	Land allocated for mixed use	496
5.037	IP221	The Flying Horse, PH, 4 Waterford Road	SP2	Land allocated for residential use	12
5.543	IP005	Former Tooks Bakery, 731 Old Norwich Road	SP3	Land with planning permission	60
5.543	IP005	Former Tooks Bakery, 731 Old Norwich Road	SP7	Land allocated for community use	0
5.606	IP032	King George V Field, Old Norwich Road	SP6	Land allocated for open space	0
5.606	IP032	King George V Field, Old Norwich Road	SP2	Land allocated for residential use	99
6.099	IP140	Land north of Whitton Lane	SP5	Land allocated for employment use	0

4. Appropriate Assessment of Impact Pathways

- 4.1 The screening for likely significant effects at Table 3 identifies a number of recommended text changes that can strengthen policy or completely avoid risks with the removal of potentially harmful aspects. These are clarifications, corrections or instructions for the development project HRA, that do not require further scrutiny at the appropriate assessment stage. These recommendations were provided at both Regulation 18 stage and again at Regulation 19 stage. Where a Regulation 18 stage recommendation has not yet been picked up, this is flagged again in the column of recommendations at the Regulation 19 stage.
- 4.2 Additionally, the screening table has flagged key topics for more in-depth consideration within an appropriate assessment. Table 4 provides the full list of site allocations in order of distance from the Stour and Orwell Estuaries SPA/Ramsar site. Those within 1.5km will be checked in more detail within the appropriate assessment, on a precautionary basis to ensure that any risks are addressed and project level HRA needs clarified.
- 4.3 These appropriate assessment topics were highlighted in this HRA report at Regulation 18 stage to advise on the scope of the appropriate assessment. These impact pathways are now assessed in detail within the following appropriate assessment sections to inform the Regulation 19 version of the Ipswich Local Plan (final draft Local Plan).

Purpose of the appropriate assessment

- 4.4 There is now a strong body of evidence showing how increasing levels of development, even when well outside the boundary of protected wildlife sites, can have negative impacts on the sites and their wildlife interest. The research particularly includes work on heathlands (Ralph T. Clarke, Liley, Sharp, & Green, 2013; R.T. Clarke & Liley, 2013; R.T. Clarke, Sharp, & Liley, 2008; D Liley & Clarke, 2006; Mallord, 2005; Sharp, Clarke, Liley, & Green, 2008; Underhill-Day, 2005) and coastal sites (R.T. Clarke et al., 2008; D Liley, 2008; Durwyn Liley & Sutherland, 2007; Randall, 2004; Saunders, Selwyn, Richardson, May, & Heeps, 2000; Stillman et al., 2009) where links between housing, development and nature conservation impacts are demonstrated.
- 4.5 Once a likely significant effect has been identified, the purpose of the appropriate assessment is to examine evidence and information in more detail to establish the nature and extent of the predicted impacts, in order to answer the question as to whether such impacts could lead to adverse effects on European site integrity.

- 4.6 An appropriate assessment should be based on evidence, and that can take different forms (direct evidence, comparable evidence, modelling, expert opinion, Natural England's advice etc). In reality however, appropriate assessments at the plan stage are often undertaken with enough evidence to give confidence in potential mitigation options, but that project level HRAs remain critical in determining the detail of such mitigation. The assessment at plan level is therefore often drawing on the knowledge and experience of the assessors, to make scientifically justified decisions about eliminating risk whilst recognising the need for further detailed considerations.
- 4.7 The 'precautionary principle' is described in the screening section. It is equally relevant for the appropriate assessment as it is for screening likely significant effects. It is an accepted principle that is embedded within the wording of the legislation, and latterly within case decisions, both European and domestic. Essentially, the appropriate assessment stage is, in accordance with the Habitats Regulations, an assessment that enables a competent authority to only give effect to a plan or authorise/undertake a project after having ascertained that it will not adversely affect the integrity of the European site.
- 4.8 It is for the competent authority to gather the information and evidence necessary for the appropriate assessment to give them certainty that adverse effects will not occur. Fundamentally that therefore means that in the absence of certainty, the plan or project should not normally proceed (subject to the further exceptional tests explained in Appendix 1). Hence the precaution is in the competent authority's duty to only allow plans or projects to proceed whether there is certainty and to apply a precautionary approach where uncertainties remain.
- 4.9 Competent authorities should have enough evidence to satisfy themselves that there are feasible measures to prevent adverse effects. These should be feasible in terms of cost, practical implementation, timeliness and attributing responsibility.

Appropriate assessment topics

- 4.10 The screening stage has been informed by evidence and professional expertise, along with ongoing discussions with Natural England, particularly in relation to the development of the RAMS.
- 4.11 The following appropriate assessment chapters cover the following impact pathways identified by the screening for likely significant effects:
- Recreation
 - Urbanisation effects
 - Site allocations check

- Water
- Air quality
- Biodiversity net gain.

4.12 These topics are considered in turn within the following appropriate assessment chapters.

Consideration of potential effects alone and in-combination

4.13 It is important to note that the Habitats Regulations require the consideration of likely significant effects arising from the plan or project alone, or where necessary in-combination with other plans and projects. Some impact pathways are generally relevant when there is a quantum of growth in a particular location, such as recreation pressure, or across a whole plan area, such as water resources. Mitigation measures therefore need to work at the whole plan level. Such impacts will often be recognised across administrative boundaries, and where this is the case, it can sometimes be difficult to actually pinpoint exact levels of impact from individual sources. This is particularly relevant for increased traffic emissions, for example, where use of the road network can be modelled, but such modelling tends to provide predicted trends rather than a truly accurate picture of where each additional vehicle will come from.

4.14 When assessing potential impacts at a plan level, the consideration of impacts is precautionary, without the full detail of development coming forward, and is inherently more focussed on the combined effect of the proposed growth within the plan or the effect of implementing the proposed policies. It is important to make sure however, that individual impacts are not missed. A specific check of site allocations is therefore made to identify any risks that may arise from the site allocation individually, and whether there is a need for additional mitigation over and above that proposed for a combined effect.

5. Recreation

- 5.1 This appropriate assessment section focuses on residential growth, but also a check that tourism does not bring additional issues. The impact of recreation on the coastal and heathland European sites has already been recognised in previous HRA work and the identification of recreation pressure as a key concern for the Suffolk European wildlife sites has been echoed within neighbouring local planning authority plan level HRAs. This has led to the collaborative working between the Suffolk local planning authorities that lie within 13km of the coastal and heathland European sites with the development of the Suffolk HRA RAMS. This impact is therefore an in-combination impact, with the combined effect of multiple residential developments to meet housing growth needs being identified as significant. It should be noted that where a site allocation is in very close proximity, there may be recreation impacts that are significant from one development alone, as checked below within the site allocations section of this appropriate assessment.

Summary of impacts of recreation on interest features

- 5.2 Recreation undertaken on European sites can lead to a number of impacts, and the risks posed by increasing access are now widely recognised, including habitat damage, disturbance of species, increased fire risk and nutrient enrichment from dog fouling.
- 5.3 Damage to sensitive European site SAC habitats, and the habitats which in turn support the SPA bird interest, can be realised through footfall (or wheels) on individuals, vegetation and soils. Issues relate to vegetation wear, soil compaction and erosion, i.e. largely unintentional consequences from the passage of people, pets and vehicles. These issues relate to plants and soils, but then changes in habitat extent (e.g. through the widening of footpaths and path erosion) and structure can also have consequences for a range of species and trampling can result in direct mortality for some fauna. In addition, damage can be deliberate, for example vandalism.
- 5.4 Dogs will typically defecate within 10 minutes of a walk starting, and as a consequence most (but not all) deposition tends to occur within around 400m of a site entrance (Taylor *et al.*, 2005). In addition, most faeces are deposited close to the path, with a peak at approximately 1m from the path edge (Shaw, Lankey, & Hollingham, 1995). Dogs will also typically urinate at the start of a walk, but they will also urinate at frequent intervals during the walk. The total volume deposited on sites may be surprisingly large. At Burnham Beeches National Nature Reserve over one year, Barnard (2003) estimated total amounts of 30,000 litres of urine and 60 tonnes of faeces from dogs.

- 5.5 Nutrient levels in soil (particularly nitrogen and phosphorous) are important factors determining plant species composition. On heathland, dog fouling is the equivalent to applying a high level of fertilizer, resulting in a reduction in species richness and the presence of species typically associated with more 'improved' habitats. The impacts of dog fouling can often be seen in the form of grassy edges of paths on many heaths with high levels of access. This can be exacerbated by trampling, which has a lesser effect on species such as grasses, which grow from the base rather than the tip.
- 5.6 Fires can be caused accidentally from discarded cigarettes, by sparks from a campfire, BBQs or from burning a dumped or stolen car, from fireworks, as a result of a controlled fire getting out of control, from discarded bottles in strong sunlight, from children playing with matches or similar, and from deliberate arson.
- 5.1 Disturbance occurs where human activity influences an animal's behaviour or survival. By far the majority of the literature (and there are thousands of studies) focuses on birds (Brawn, Robinson, & Ill, 2001; Hill et al., 1997; for general reviews see Hockin et al., 1992; Lowen, Liley, Underhill-Day, & Whitehouse, 2008; Showler, 2010; Steven, Pickering, & Guy Castley, 2011; Whitfield, Ruddock, & Bullman, 2008).
- 5.2 The presence of people in the countryside will influence wildlife in many ways. For many species, the people or their pets (e.g. dogs) are a potential threat and as such it is to be expected that the response will be to modify behaviour, for example fleeing. The relative trade-off as to when to change behaviour and respond to the threat will relate to the perceived scale of the threat and the costs involved (e.g. lost foraging time). This perspective can be used to understand the behavioural responses to people and led one author to describe human disturbance as predation-free predators (Beale & Monaghan, 2004).
- 5.3 With people (and their pets) viewed as potential predators, there is clearly a greater threat posed (and therefore a greater behavioural response) when, for example, there are more people, in larger groups (Beale & Monaghan, 2004, 2005) or when people approach directly (Smith-Castro & Rodewald, 2010) or faster (Bellefleur, Lee, & Ronconi, 2009).
- 5.4 Disturbance can therefore have a range of different impacts potentially affecting distribution, breeding success and health. Impacts can be chronic, for example otherwise suitable nesting habitat being completely avoided (e.g. Durwyn Liley & Sutherland, 2007) or more short-term in nature, for example birds becoming alert and then resuming the initial activity (e.g. Fernandez-Juricic, Jimenez, & Lucas, 2001).

- 5.5 It is often difficult to separate different types of activities as at many sites multiple activities tend to overlap in space and time. Nonetheless, dogs are often identified as having a disproportionate effect (Banks & Bryant, 2007; Cavalli, Baladrón, Isacch, Biondi, & Bó, 2016; Lafferty, 2001; D. Liley & Fearnley, 2012; Taylor, Green, & Perrins, 2007; K. Thomas, Kvitek, & Bretz, 2003); dogs are likely to be perceived as a greater threat, will actively chase birds and are able to track wildlife by smell. Dog walking is generally one of the most popular activities undertaken at European sites, with visitors tending to favour expansive greenspaces where it is felt that dogs can be let off lead. A key aspect of European site mitigation for recreation pressure is therefore often considering how dog walking can be better managed to reduce impacts.
- 5.6 The supplementary advice for the Suffolk coastal and heathland sites within the RAMS advises that recreation pressure is a key issue for these sites. The supplementary advice for the Stour and Orwell Estuary Spa advises that the Orwell Estuary experiences much higher levels of recreational activities than the Stour, especially on the upper Orwell. The Orwell has a narrower width than the Stour, and recreational activities are therefore more likely to impact birds on the Orwell. The supplementary advice also highlights that for the Orwell, disturbance is worse at high tide when the available area for birds to feed and roost is much reduced. These factors have been taken into account in the development of the mitigation measures that are included within the RAMs.

Checking whether strategic mitigation is fit for purpose

- 5.7 Checking that the RAMS remains fit for purpose as a mechanism to mitigate the combined effect of housing within the emerging Ipswich Local Plan is important to enable the Council to have confidence that the recreation impact pathway remains adequately mitigated.
- 5.8 The Ipswich Borough is entirely within the 13km zone of influence already established for the RAMS. This strategic mitigation strategy is a means by which the residential development can contribute towards a multi local planning authority initiative for protecting the Suffolk coastal and heathland European sites from additional recreation pressure. RAMS will be delivered jointly by the RAMS Steering Group of local planning authorities as a collaborative, multi authority initiative to mitigate for combined effects across administrative boundaries.
- 5.9 The RAMS is anticipated to require developer contributions, through a range of mechanisms including Section 111 and Section 106 legal agreements, towards strategic avoidance and mitigation measures that have been planned to manage access at the coastal and heathland European wildlife sites. Measures are anticipated to include dedicated staff to deliver projects, wardens for on-site

liaison with visitors, a range of visitor education measures and further data gathering in relation to visitor use. The evidence supporting the RAMS indicates that developer contributions would be required for all additional housing development within 13km of the European sites.

- 5.10 By making a proportionate financial contribution, the need for complex individual mitigation to be designed and implemented for each development project is removed. This takes a considerable burden away from individual developers and ensures a Suffolk wide approach to effectively protecting the European sites on the basis of robust evidence and assessment.
- 5.11 In assessing impacts of the emerging Local Plan there is a need to check the applicability of the HRA RAMS to the additional housing that will come forward with the allocations within the Ipswich Local Plan Review. The extent to which the RAMS is currently able, or can be expanded to accommodate, the new quantum of residential growth into the future is the main consideration for this section of the Ipswich Local Plan Review HRA.
- 5.12 There is also a need to have regard for the proximity of site allocations. Where allocations fall very close to European site boundaries, there may be recreation impacts that are over and above the capabilities for mitigation set out within the RAMS. As noted above, these may have recreation effects from the individual allocation alone. As set out in the screening table for the site allocations, a number of individual site allocations are in very close proximity to the Orwell Estuary. This small number of site allocations is discussed in the subsequent appropriate assessment section below in relation to urbanisation effects.
- 5.13 Recreation pressure at the Orwell Estuary is recognised within the RAMS, and a number of measures, in particular dedicated warden time focussed at sensitive times of year when birds are present is included. Expansion of Orwell Country Park, as discussed below in relation to the consideration of site allocations, is a proposal within the Local Plan but is also linked to the RAMS. Some proposals for the park are clearly not related to mitigation, but some specific measures such as footpath diversion away from the shoreline are directly relevant and will contribute to reducing recreation pressure.
- 5.14 The RAMS strategy has numerous opportunities for expansion. The strategy has been initially set up to cover the designated sites and mitigation has been based on residential growth within existing local plans. However, there is inherent flexibility within the approach and the following measures are ones which could be expanded or adjusted to accommodate different levels of growth:
- The warden team: staffing levels can be adjusted, and staff time focussed according to particular needs, changing patterns of access or different levels of growth;

- The dog project: numbers of events and staffing etc. can be adjusted as necessary;
- Site specific projects: these are targeted measures relating to changing access infrastructure, new paths, re-routing paths, water-sports measures, changes to car parks etc. and are instigated on or around the European sites.

5.15 The RAMS provides a mechanism for funding a range of measures to manage access at the European sites, but also highlights the potential need for greenspaces that serve to provide an alternative to recreation on European sites where there is a concentration of residential development at one location. This is because of the additional risk to European sites being that the most local access points on the nearby European sites will receive a large influx of additional visitors as new residents seek local recreation space, particularly for daily walking/dog walking.

5.16 The role of the Ipswich Garden Suburb Country Park as a complementary measure to alleviate recreation pressure, alongside the strategic on-site measures that form part of the RAMS is discussed in detail within the RAMS technical report. Much of this large housing site has now progressing in terms of planning proposals with the Council's Planning and Development Committee having made a resolution to grant outline permission for outline applications IP/14/00638/OUTFL and IP/16/00608/OUT, which form the main parts of the Garden Suburb (subject to completion of Section 106 agreements). The new Country Park to be provided will serve both new residents and the wider community and is expected to be delivered by the developers as their mitigation for recreational impacts, with some additional funding through the Housing Infrastructure Fund (HIF), which has a deadline of March 2020.

5.17 Within the site allocations there is a site proposed in the north-east of Ipswich along Humber Doucy Lane for 496 homes. This is proposed for housing delivery, appropriately phased with the delivery of the Ipswich Garden Suburb and its associated infrastructure. East Suffolk have allocated an adjoining site for 150 dwellings and it is proposed that the two sites be brought forward together informed by joint master planning.

5.18 The Humber Doucy Lane allocation will deliver its 496 homes later in the plan period. Given the potential size of this site and the number of houses it may deliver, and the joint working required within neighbouring East Suffolk Council (which has an adjoining allocation), it is highlighted that a concentration of housing in this location is likely to require a bespoke SANG in addition to contributions towards the RAMS, to function as an alternative to the coast. This approach would reflect that already being taken for the Ipswich Garden Suburb and a number of large residential allocations within East Suffolk.

- 5.19 It is advised that as the proposals for this site progress, consideration will need to be given to SANG requirements and how the nearby SANG being delivered as part of the Ipswich Garden Suburb and wider footpath network, may be linked to any new SANG provision. The need for a SANG should be flagged at the plan level, so that this can be planned for within the concept and design principles for the site. This should ensure that the SANG design is not constrained by the progression of site layout prior to its consideration. Whether the site can accommodate the SANG, or whether additional land is required, is a key consideration, for which liaison with East Suffolk Council may also be required.

Appropriate assessment conclusions for recreation

- 5.20 It is concluded that the RAMS, which is nearing adoption, includes a comprehensive monitoring and review programme that allows for new growth in emerging local plans to be incorporated into the avoidance and mitigation measures programme. The strategy focusses on the combined effect of recreation across administrative boundaries, and has numerous opportunities for expansion, particularly in relation to dedicated staff within the project team, which will initially be set up to cover the designated sites based on residential growth within existing local plans. Staff coverage of European sites could be notably increased with new growth, and there are also a range of opportunities for additional projects to be run or expanded upon at all of the European sites. Based on knowledge and experience of such strategies elsewhere, it is advised that the RAMS has significant potential for expansion into the long term. Policies relating to the delivery of RAMS are therefore considered to adequately enable appropriate mitigation for recreation.
- 5.21 The Humber Doucy Lane allocation for 496 homes should be highlighted within the Local Plan or associated site sheets as an allocation that is likely to need its own SANG. Text should also advise of the need for early design considerations to ensure that the SANG is in the right location, and of the right size, and its design is not therefore constrained by the progression of site layout prior to its consideration. Whether the site can accommodate the SANG, or whether additional land is required, is a key consideration, for which liaison with East Suffolk Council may also be required.
- 5.22 This conclusion applies to all residential development coming forward within the Ipswich Local Plan. Additional checks below are made in relation to any requirements for additional measures, over and above adherence to the RAMS, for sites in very close proximity to the Orwell Estuary.
- 5.23 It should be noted that within the check for sites in close proximity to the Orwell Estuary below, the Helena Road site for 337 dwellings and the Island site for 421 dwellings are also flagged as large residential developments for which it is

advised that project level HRA will need to assess mitigation needs, including access to local greenspace. The project level HRAs may need to consider local greenspace capacity, and whether additional measures such as increased car parking at local greenspaces may be required, over and above a RAMS contribution. The site sheets for these two sites should refer to these project level HRA requirements.

6. Urbanisation Effects

- 6.1 Urban effects relate to issues where development is close to the European site boundary and is an umbrella term relating to impacts such as cat predation, fly tipping, increased fire risk and vandalism (see Underhill-Day, 2005 for review). Urbanisation impacts include increased lighting, noise, fires, rubbish dumping, garden waste dumping, increased predators, both wild and domestic and also a recreation pressure risk that is over and above that highlighted as a cumulative impact of all residential development, due to very close proximity.
- 6.2 A number heathland European sites⁸ have a 400m zone around the boundary where there is a presumption of no further development (net increase in residential properties). This presumption reflects the issues with urbanisation and the lack of suitable mitigation and avoidance measures. For example, for development so close to the European sites the options to divert access or provide suitable alternatives are very limited.
- 6.3 The choice of 400m is based on the literature (summarised in Underhill-Day, 2005) and to some extent is a pragmatic choice. Studies of cat roaming behaviour have shown 400m to be an appropriate buffer width to limit cats in very urban environments (R. L. Thomas, Baker, & Fellowes, 2014), however in more rural areas cats can roam considerably further and some studies have suggested ranges over 2km for more rural situations (Hall et al., 2016; Metsers, Seddon, & van Heezik, 2010).
- 6.4 Studies of fire incidence have shown that heathland sites with high levels of housing within 500m of the site boundary have a higher fire incidence (Kirby & Tantram, 1999). Fires can start in a range of ways, including deliberate arson, children playing, campfires, barbeques, sparks from vehicles, discarded cigarettes etc.
- 6.5 Allocations at very close proximity can potentially lead to a number of urbanisation impacts and these are relevant for both the SPA bird features and the SAC habitat features. Where housing is directly adjacent to sites, access can occur directly from gardens and informal access points. Parking areas can be used as residential parking and access can include short-cuts and a range of other uses that are not necessarily compatible with nature conservation. Fly-tipping and dumping of garden waste can be more common. As such managing and looking after such sites can be more challenging.

⁸ E.g. the Thames Basin Heaths, the Dorset Heaths, the East Devon Pebblebed Heaths

- 6.6 At very close proximity people will use greenspaces as essentially an extension to their garden. Activities include short dog walks multiple times a day primarily for toileting, summer bar-b-ques and socialising. Apartments without a garden can further intensify these types of uses.
- 6.7 There are a small number of housing allocations within the emerging Ipswich Local Plan that are highlighted here as requiring closer scrutiny due to close proximity. The sites in very close proximity to the Orwell Estuary are specifically considered in terms of the potential for these types of impacts, and what measures may be needed to prevent them. In checking each site allocation, consideration is given to the nature of the estuary and its interest features, as some urbanisation impacts may not be directly relevant to this site but will be more applicable to other European sites within the RAMS area.
- 6.8 The screening table for site allocations checks the distance from each of the development sites in close proximity to the Orwell Estuary, and this flags potential urbanisation risks, and also where such close proximity highlights additional recreation risks that cannot be solely mitigated for with the RAMS.

Site allocations check

- 6.9 The site allocations have been mapped to consider their type, size, and their proximity to European sites (see Map 4). For the Ipswich Borough, the main concern is whether residential development is in close proximity to the Orwell Estuary, generating urbanisation impacts, or is a concentration of residential development that may result in concentrated and daily access at a particular European site location. The allocations to highlight from Table 4 are those within 1.5km of the Orwell Estuary, and these are now replicated and assessed within Table 5 as follows:
- 6.10 **Housing within 1.5km of the Orwell Estuary** - There are a number of proposed housing allocations that are in relatively close proximity to the Orwell Estuary, and for these site there may be either urbanisation impacts or a need for recreation impacts to be checked to ensure that the RAMS can provide adequate strategic mitigation for these sites, recognising that access to the estuary may be easily undertaken directly on foot from the housing sites. The proximity of site allocations to the Orwell Estuary are shown in Map 4, and the distances in Table 4. Table 5 below assesses all allocations within 1.5km.
- 6.11 The issues to check for the HRA at plan level are the following:
- The access to the estuary, or other alternative greenspaces that form part of the RAMS; Ipswich Garden Suburb Country Park and Orwell Country Park. The proximity and role of these greenspaces

in relation to the Estuary and the housing developments is considered.

- Whether the allocation creates a concentrated need for recreation due to the number of dwellings it will accommodate, and what options there are, particularly for daily dog walking, and whether there might be options to improve dog walking areas away from the estuary.
- Any additional RAMS measures that need to be focussed in these locations, such as education and interpretation measures.
- Any additional site-specific mitigation measures or project level HRA requirements.

6.12 Table 5 below provides conclusions and recommendations in the final column. Adverse effects on site integrity are ruled out, with project level HRA issues being such that they are capable of mitigation, i.e. the required measures are technically feasible and not considered onerous, and may involve surface water management or lighting design, for example.

6.13 **Orwell Country Park** - The Local Plan Review identifies Orwell Country Park as a location for potential expansion of greenspace into the Pond Hall Farm area, for which a key mitigation measure will be the diversion of the shoreline footpath to bring it further back and reduce disturbance at the estuary. This footpath work is already identified as being part of the RAMS. The current plans for the country park and extension, have been checked to ensure they remain complementary to the RAMS objectives. Whilst no adverse effects can be concluded at a plan level, with the proposals for Orwell Country Park being both within the Local Plan and referenced within the RAMS, it is recommended that at the next RAMS review there is greater emphasis given to the requirements for Orwell Country Park as an alternative greenspace for a number of housing sites in the immediate area unless this work has been completed.

6.14 It will be important for any funding from the RAMS to be clearly identified as mitigation. The proposal for the expansion of the park includes a wide range of enhancements, many of which are not directly applicable as European site mitigation. Where funds are used from the RAMS for any specific measures, such as footpath diversion from the shoreline, these need to be clearly justified as being mitigation and not delivering other objectives.

Table 5: Appropriate assessment of site allocations in close proximity to the Orwell Estuary

No AEOI = No Adverse Effects on Site Integrity. BNG = Biodiversity Net Gain

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings	Appropriate Assessment
0.001	IP149	Land at Pond Hall Farm	SP8	Land allocated for extension to country park	0	Extension proposals have been checked and are consistent with RAMS in terms of providing non-SPA greenspace, visitor facilities, measures that will educate visitors and footpath works to draw people away from the shoreline. A number of residential allocations in very close proximity should be partially mitigated for by the enhanced Orwell Country Park proposals.
0.398	IP067b	Former British Energy Site, Cliff Quay	SP5	Land allocated for employment use	0	No AEOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required. Wildlife audit highlights the site as contributing to a continuous wildlife corridor south of Ipswich. BNG should be a focus here.
0.459	IP143	Former Norsk Hydro, Sandy Hill Lane	SP2	Land allocated for residential use	85	Site is very close to the estuary. Orwell Country Park could potentially attract recreation use from the development site. Orwell Country Park enhancements will be key to mitigation. No AEOI Urbanisation impacts risk should be flagged for the allocation and project level HRA required. Site is part of a continuous habitat corridor down to Orwell Country Park, BNG should therefore be a focus here.
0.515	IP067a	Former British Energy Site, Cliff Quay	SP2	Land allocated for residential use	17	Site is close to the estuary. Orwell Country Park could potentially attract recreation use from the development site. Orwell Country Park enhancements will be key to mitigation.

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings	Appropriate Assessment
						<p>Also, this is a small housing site, therefore will not result in high access concentrations.</p> <p>No AEOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p> <p>Wildlife audit highlights the site as contributing to a continuous wildlife corridor south of Ipswich. BNG should be a focus here.</p>
0.750	IP150b	Land south of Ravenswood	SP7	Land allocated for leisure use	0	<p>Use type unlikely to generate potential risks.</p> <p>No AEOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p>
0.774	IP125	Corner of Hawke Road and Holbrook Road	SP2	Land allocated for residential use	15	<p>Within an urban location, therefore additional urbanisation impacts low risk.</p> <p>Site is very close to the estuary. Orwell Country Park could potentially attract recreation use from the development site. Orwell Country Park enhancements will be key to mitigation. No AEOI</p>
0.845	IP080	240 Wherstead Road	SP2	Land allocated for residential use	27	<p>Site is very close to the estuary. Orwell Country Park could potentially attract recreation use from the development site. Orwell Country Park enhancements will be key to mitigation. No AEOI</p> <p>Urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p>

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings	Appropriate Assessment
0.993	IP152	Airport Farm Kennels, north of A14	SP5	Land allocated for employment use	0	<p>No AEOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p> <p>Notable potential biodiversity value from wildlife audit noted. BNG needs to be considered for this site.</p>
1.000	IP307	Prince of Wales Drive	SP2	Land allocated for residential use	12	<p>Site in very close proximity to the estuary and the country park is on the other side of the estuary, therefore of reduced draw as an alternative site due to access.</p> <p>However, this is a small housing site, therefore will not result in high access concentrations.</p> <p>Within an urban location, therefore additional urbanisation impacts low risk. No AEOI.</p>
1.029	IP150d	Land south of Ravenswood	SP2	Land allocated for residential use	34	<p>Site is close to the estuary. Orwell Country Park could potentially attract recreation use from the development site. Orwell Country Park enhancements will be key to mitigation.</p> <p>No AEOI</p> <p>No AEOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p> <p>Wildlife audit highlights the site as contributing to a continuous wildlife corridor south of Ipswich. BNG should be a focus here.</p>
1.059	IP042	Land between Cliff Quay and Landseer Road	SP3	Land with planning permission	222	<p>Resolution to grant pp only. RAMS contribution should have been sought.</p>

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings	Appropriate Assessment
1.115	IP150a	Areas U, V & W, Ravenswood	SP3	Land with planning permission	94	Outline planning permission given prior to RAMs. RAMS to be considered at reserved matters.
1.120	IP200	Bath Street (Griffin Wharf)	SP3	Land with planning permission	113	Outline planning permission given prior to RAMs. RAMS to be considered at reserved matters.
1.184	IP150e	Land south of Ravenswood	SP2	Land allocated for residential use	126	<p>Site is close to the estuary. Orwell Country Park could potentially attract recreation use from the development site. Orwell Country Park enhancements will be key to mitigation. No AEOI</p> <p>No AEOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p> <p>Wildlife audit highlights the site as contributing to a continuous wildlife corridor south of Ipswich. BNG should be a focus here.</p>
1.322	IP037	Island Site	SP2	Land allocated for residential use	421	<p>Located on the River Orwell upstream of the SPA/Ramsar. Within SSSI and LWS.</p> <p>Recreation options to the north at IGS, but a site of this size needs detailed assessment of recreation impacts. Additional mitigation at local greenspaces may be required.</p> <p>Potential for indirect impacts from water contamination, particularly during construction. No AEOI at plan level but a need for project level HRA.</p> <p>Other statutory and policy protected biodiversity needs to be considered.</p>

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings	Appropriate Assessment
1.322	IP037	Island Site	SP6	Land allocated for open space, employment, small retail etc.	0	<p>Located on the River Orwell upstream of the SPA/Ramsar. Within SSSI and LWS.</p> <p>Potential for indirect impacts from water contamination, particularly during construction. No AEIOI at plan level but a need for project level HRA.</p> <p>Other statutory and policy protected biodiversity needs to be considered.</p>
1.326	IP045	Land bounded by Cliff/Toller/Holywells Road	SP4	Land with the potential for housing-led redevelopment	148	<p>Located close to the River Orwell upstream of the SPA/Ramsar.</p> <p>Recreation options to the north at IGS.</p> <p>Potential for indirect impacts from water contamination, particularly during construction. No AEIOI at plan level but a need for project level HRA.</p>
1.339	IP150c	Land south of Ravenswood	SP5	Land allocated for employment use	0	<p>No AEIOI at plan level but urbanisation impacts risk should be flagged for the allocation and project level HRA required.</p> <p>Wildlife audit highlights the site as contributing to a continuous wildlife corridor south of Ipswich. BNG should be a focus here.</p>
1.370	IP226	Helena Road	SP4	Land with the potential for housing-led redevelopment	337	<p>Located close to the River Orwell upstream of the SPA/Ramsar.</p> <p>This is a large housing site but is not in immediate proximity to the estuary. Recreation options to the north at IGS.</p>

Ipswich Local Plan Review HRA

Distance to Stour & Orwell Estuaries SPA (km) at closest point	Site reference	Address	Policy	Allocation	Dwellings	Appropriate Assessment
						<p>Project level HRA should assess current progress with IGS to have confidence that this alternative greenspace is available before this site comes forward. Additional mitigation at local greenspaces may be required.</p> <p>Potential for indirect impacts from water contamination, particularly during construction. No AEIOI at plan level but a need for project level HRA.</p>
1.488	IP064a	Land between Holywells Road and Holywells Park	SP2	Land allocated for residential use	66	<p>Located close to the River Orwell upstream of the SPA/Ramsar.</p> <p>Recreation options to the north at IGS.</p> <p>Potential for indirect impacts from water contamination, particularly during construction. No AEIOI at plan level but a need for project level HRA.</p>
				Total housing within 1.5km	1,717	

Appropriate assessment conclusions for urbanisation

- 6.15 The total number of new residential development to be delivered on housing allocations within 1.5km amounts to 1,717 dwellings. There are alternative greenspace options at Ipswich Garden Suburb and Orwell Country Park, which will be expanded as a key allocation within the Local Plan, and this is linked into the RAMS. Whilst a conclusion of no adverse effect on site integrity at plan level can be drawn, as per the assessment undertaken within Table 5, it is recommended that at the next RAMS review there is greater emphasis given to the requirements for Orwell Country Park extension as an alternative greenspace for a number of housing sites in the immediate area.
- 6.16 Most housing sites within 1.5 km are relatively small, with the exception of the Helena Road site for 337 dwellings and the Island site for 421 dwellings. It should be ensured that the Ipswich Garden Suburb Country Park is complete before these sites come forward. It is advised that project level HRA will need to assess mitigation needs, including local greenspace capacity. The project level HRAs may need to consider whether any or additional measures such as increased car parking provision at local greenspaces are necessary over and above a RAMS contribution. The sites sheets for these two sites should refer to these project level HRA requirements.
- 6.17 For a small number of allocations in close proximity to European sites, it is advised that supporting text is added to the Local Plan site sheets, to flag the need for project level HRA to assess urbanisation and water contamination risks.

7. Water

- 7.1 Water issues include water quality and water quantity (i.e. water availability), and flood management. Run-off, outflow from sewage treatments and overflow from septic tanks can result in increased nutrient loads and contamination of water courses. Abstraction and land management can influence water flow and quantity, resulting in reduced water availability at certain periods or changes in the flow. Such impacts particularly relate to aquatic and wetland habitats, and in general is a whole plan issue or an in-combination effect from the quantum of growth within the plan.
- 7.2 It is therefore necessary for Local Plan HRA work to check the range of evidence documents that inform water quality and water resource provision. Where there are concerns or potential issues, this may also need to include discussion with the relevant water utility company, which for Ipswich is Anglian Water Services for both water supply and water treatment.

Water supply

- 7.3 The Cross-boundary Water Cycle Study for both Suffolk Coastal (now part of East Suffolk) and Ipswich was completed for the authorities by Wood in 2019. It is available with the evidence documents for the Local Plan on the Ipswich Borough Council website. The study advises that the whole of East Anglia is a high water stress area, and its objectives are to ensure that the Local Planning authorities can have confidence that their planned growth can be accommodated. The study therefore undertakes a range of detailed checks and analysis, particularly in relation to water utility company proposals for the plan period.
- 7.4 The Water Resource Management Plans prepared by the utility companies recognise the water stress on the area and do not propose to introduce any new ground or surface water abstractions. Growth data from relevant local plans is used to assist with forecasting demand on supply and water treatment. Anglian Water Services predicts a surplus in water supply can be maintained into the medium to long term, but does identify some uncertainty in the short term, mainly in relation to some of the larger development sites in the Suffolk Coastal (now East Suffolk) area. Significant infrastructure may be required to transfer water from areas of surplus.
- 7.5 Anglian Water highlights the importance of promoting water efficiency through Local Plans and advises that local planning authorities should ensure that dwellings meet the Building Regulation optimal higher water efficiency standard of 110l/h/d (Building Regulations part G2). It is also advised that commercial

development should be required to meet BREEAM standards. Furthermore, there should be an aim for water-neutrality in areas of high water stress.

Water treatment

- 7.6 The Cliff Quay Water Recycling Centre is located in the south of Ipswich and discharges to the River Orwell. This centre and its feeding infrastructure are programmed to receive combined sewer overflow improvements along with increases in process capacity and drainage capacity, as stated within the Anglian Water Services Business Plan. The Water Cycle Study highlights that local planning authorities need to consult early with Anglian Water Services in relation to drainage strategies for new development.
- 7.7 The study highlights that additional growth planned within Local Plans equates to an additional nitrogen loading to the Orwell Estuary of 63,813 KgN/yr. This is a significant load and the study concludes that these predicted increases need to be discussed between Anglian Water, Natural England and the Environment Agency.

Flood risk

- 7.8 Flood risk is of relevance where flooding may occur and draw pollutants and sewage overflow into designated waterbodies, such as the Orwell Estuary. The Water Cycle Study highlights that there are extensive corridors of flood risk in Ipswich associates with the urban area and low lying areas behind raised coastal defences. The study naturally concludes that development should be directed away from areas at significant risk of surface water flooding. It then goes on to provide detailed advice in relation to the considerations for development to positively manage flood risk, including the use of sustainable urban drainage systems.
- 7.9 The Council has produced a Development and Flood Risk SPD, most recently updated in 2016, and Core Strategy policy CS18 commits to the implementation of the Borough's Flood Defence Management Strategy, along with policy DM4 that requires adherence to this strategy and sets out clear requirements for flood risk prevention in development proposals.

Appropriate assessment conclusions for water

- 7.10 Water efficiency measures should be given greater emphasis in the Local Plan, in accordance with Anglian Water Services advice. Given the short term supply issues and the predicted nitrogen load increases to the Orwell Estuary from water treatment, it is advised that a liaison group should be established to provide an annual review of the current situation and planned works. This is a

similar recommendation to that provided within the Suffolk Coastal Local Plan HRA and therefore could be a combined group. Attendees of this review group should include both utilities companies (if combined as parts of Suffolk Coastal are covered by Essex and Suffolk Water), the Environment Agency, Natural England and the Council (both Ipswich and East Suffolk Council if a combined group). It is recommended that this is timed annually to enable meeting outputs to inform the annual monitoring report for the Local Plan.

8. Air Quality

- 8.1 Reductions in air quality associated with increased traffic are primarily as a result of increased nitrogen deposition but are also related to increases in both sulphur and ammonia. Traffic generated air quality reductions can impact on vegetation communities (Bobbink, Hornung, & Roelofs, 1998; Stevens et al., 2011) and is relevant for both terrestrial and aquatic habitats. The Design Manual for Roads and Bridges (DMRB) is a Highways England publication that provides the national standards for road and bridge design, construction and operation, including assessment of impacts. This publication is widely used in HRA assessment. The DMRB highlights the need for further assessment where changes to the road network or traffic volumes might increase daily traffic flows by 1,000 Average Annual Daily Traffic (AADT) or more where the road stretch has sensitive habitats within 200m of the road. This is a simple measurement of change, using the total volume of traffic on a road and dividing it by 365 days to give a daily average.
- 8.2 Whilst still having regard for the DMRB advice, it is important that Local Plans are prepared with full regard for the full range of current information. This is confirmed in a recent and highly relevant judgment from our domestic courts, known as 'the Wealden Judgment'⁹, along with a number of European cases and a range of new evidence, advice and guidance to inform HRA assessments in relation to air quality.
- 8.3 Use of the DMRB for the purposes of assessing air quality within a plan level HRA was scrutinised through the High Court whereby Wealden District Council challenged the HRA conclusions of the Joint Core Strategy (JCS) for Lewes District and South Downs National Park. Whilst the HRA had made conclusions of no likely significant effect on the basis of growth within the JCS alone, the High Court found that the HRA had failed to consider the combined effect of growth within multiple Local Plans in the vicinity of Ashdown Forest, thus necessitating an appropriate assessment. Following this case decision, it is essential that air quality considerations have appropriate regard for any impacts that may act in combination in HRA work.
- 8.4 Air quality work undertaken by the Council includes an Air Quality Action Plan, and traffic modelling undertaken jointly with East Suffolk Council and Suffolk County Council. This recognises that air quality impacts are generally a combined impact of growth across an area and increased traffic on road

⁹ *Wealden v SSCLG (2017)*

networks cannot normally be easily segregated into individual local planning authority areas. Combined consideration of air quality impacts therefore ensures that this impact pathway is more comprehensively and realistically assessed.

- 8.5 The air quality modelling was undertaken in 2016 for the adopted Local Plan. The focus of this work has been congested areas within the town centre in relation to human health issues. Using this evidence, the Council has recently published an Air Quality Action Plan in February 2019, building on an earlier topic paper. The plan has been prepared to indicate the way in which wellbeing, air quality and public open space are related together and what the main objectives are for improving air quality in urban spaces. Whilst this plan provides positive measures that will be of benefit to the natural environment generally, the plan is not focussed on traffic emissions in close proximity to European sites.
- 8.6 A transport model for the Suffolk local planning authorities has been undertaken by the Highways Authority's consultant (WSP) to support the new Local Plans for East Suffolk (which are currently separated as Suffolk Coastal and Waveney Local Plans), Babergh and Mid Suffolk and for Ipswich. The model provides a baseline for the situation at 2016, and it continued to be updated as the Local Plans for each authority progressed their growth options, up to 2019. This work enables a cumulative consideration of development in both Ipswich and neighbouring authorities and informs transport infrastructure investment decisions. The modelling provides traffic changes on an in-combination basis with neighbouring local planning authorities and is therefore in conformity with the Wealden case referred to above.
- 8.7 The transport data indicates potential traffic changes as a result of proposed new growth, which could lead to increased vehicle emissions that in turn can lead to deposition of nitrogen on sensitive European site habitats. Whilst it is noted that traffic within the Ipswich Borough would only come in close proximity to the northern end of the Orwell Estuary, traffic generated from new growth will utilise the road network outside the Borough and could therefore contribute to traffic emissions elsewhere.
- 8.8 Map 5 shows the location of A and B roads within and in close proximity to the Ipswich Borough. The Orwell Estuary is not a habitat type that is highly sensitive to air pollution, in comparison with other terrestrial sites in Suffolk, but as shown on Map 5, the A14 does cross over the estuary at its northern point in the southern part of Ipswich via the Orwell Bridge.
- 8.9 A detailed analysis of the modelling was undertaken for the HRA of the Suffolk Coastal Local Plan, which is awaiting the Inspector's report after Examination in

Public in summer 2019. The Inspector did not raise any concerns relating to the air quality analysis within the HRA.

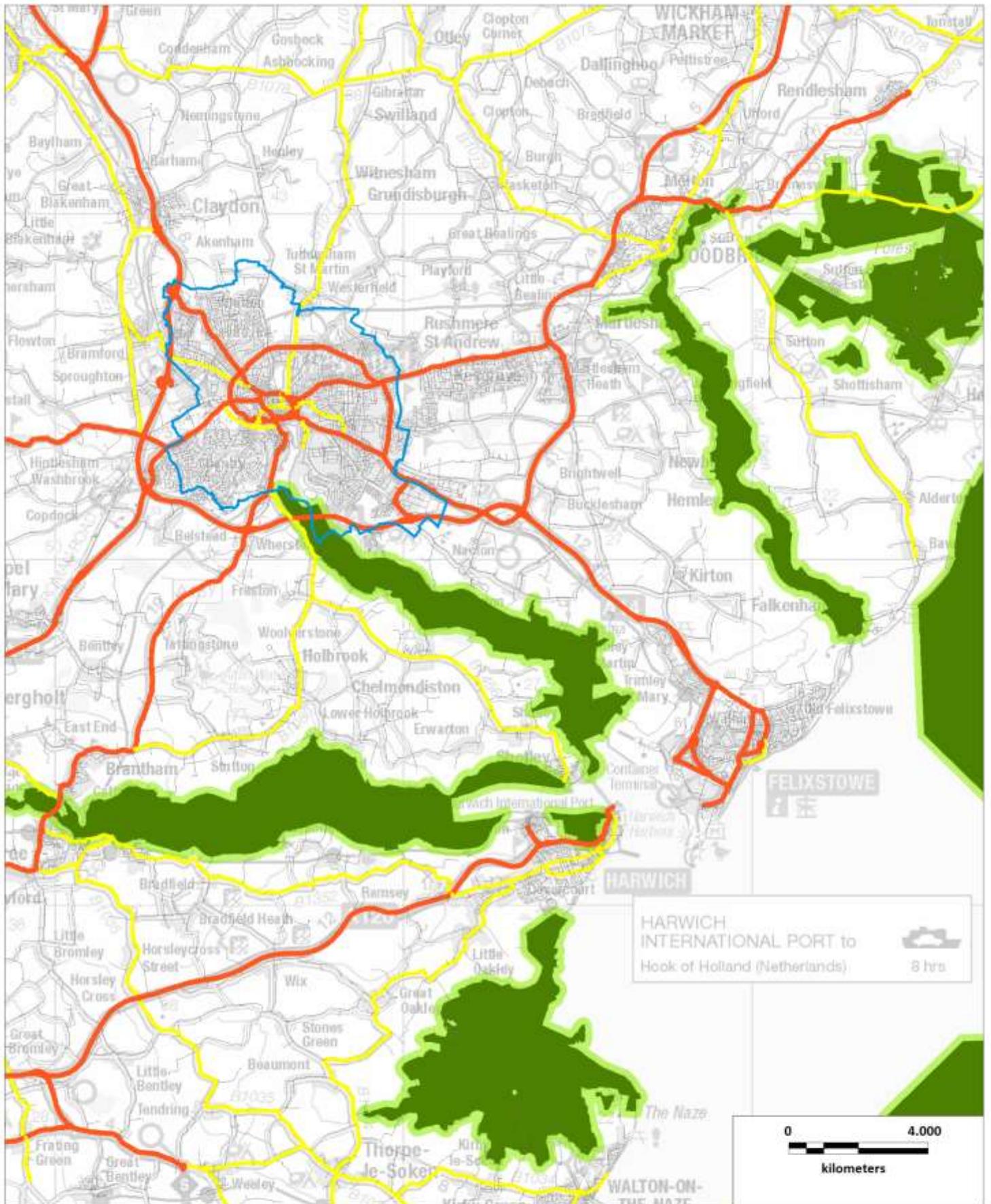
- 8.10 The HRA for the Suffolk Coastal Local Plan highlighted that there are potential risks in relation to traffic emissions, but that these predominantly relate to an ever-increasing volume of traffic on the A12 and A14, rather than being able to pinpoint particular site allocations of concern, and is in relation to growth in general, both within and outside the jurisdiction of the Suffolk authorities.
- 8.11 The traffic modelling results were discussed with Natural England in relation to the emerging Suffolk Local Plans, highlighting a potential risk from increased traffic, but that this is primarily on the main A12 and A14 routes, and that there is an absence of information to more accurately define potential impacts, if any.
- 8.12 The WSP work is traffic modelling and is being progressed to air quality modelling. This will enable a more accurate analysis of potential impacts, and will also enable the national predictions in relation to vehicle emissions improvements to be factored in. Experience from such modelling in other areas has shown that this can significantly decrease any predicted risk to European sites.
- 8.13 Ipswich Borough Council, along with East Suffolk Council will have the benefit of more detailed analysis of combined risks across the county, to inform the next plan reviews. If published prior to adoption of the Ipswich Local Plan documents, the final version of this HRA report will include a check of that analysis. Future plan reviews for the local planning authorities should include air quality modelling that incorporates a specific consideration of potential deposition rates within 200m of European sites.

Appropriate assessment conclusions for air quality

- 8.14 For the emerging Local Plans within Suffolk, discussions with Natural England have enabled a conclusion that there are potential risks that warrant a co-ordinated approach to more comprehensive evidence gathering, but that this should be planned for in time for the next plan review.
- 8.15 It is advised for each Local Plan that the plan includes text at an appropriate point to highlight the potential risk of traffic emissions to designated sites with features sensitive to air pollution, and that each Council commits to working with neighbouring authorities to gather more data to inform future plan reviews.
- 8.16 The potential risks to the Orwell Estuary are considered to be low due to the nature of habitats present, with estuarine habitats being less sensitive than other habitat types within the Suffolk European sites. A conclusion of no adverse effect on site integrity is drawn at this plan level. Any development in very close

proximity to the Orwell Estuary should check for any air borne pollutant risks, over and above general traffic generation. Policy DM3 provides for this.

Map 5: Roads and European sites



Ipswich Borough

Roads

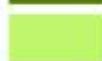
— A Road

— B Road

— Unclassified/Not classified



European sites (SPA/SAC/Ramsar)



Area within 200m of European sites

9. Biodiversity Net Gain

- 9.1 This final section of the appropriate assessment highlights wider biodiversity matters as an integral part of sustainable development, which in turn supports designated sites. The extent to which the emerging Local Plan provides protection of the natural environment including taking forward opportunities for restoration, reconnection and biodiversity net gain is therefore linked to HRA.
- 9.2 The future health of designated sites is very much dependent on the future health of wider biodiversity and the ecological networks that sustain them. In planning for the long-term sustainability of designated sites, it is therefore necessary to protect and enhance wider biodiversity through the planning system as well as the designated sites. The National Planning Policy Framework sets out comprehensive requirements for the protection, restoration, enhancement and expansion of biodiversity. A Local Plan should include protecting, enhancing and improving biodiversity, and moving from a net loss of biodiversity to achieving net gains. The Government is currently promoting a number of initiatives in relation to biodiversity net gain, including a comprehensive update to the metric that can be used to account for biodiversity losses and gains, published in 2019. It is widely anticipated that mandatory biodiversity net gain through development will feature within the Government's forthcoming Environment Bill.
- 9.3 By ensuring that wider biodiversity is adequately protected, and that new growth is making a meaningful contribution to biodiversity restoration, the national and European site assets are better supported into the long term through a robust ecological network that surrounds and underpins them.
- 9.4 The Council has a longstanding commitment to wildlife protection through development, having undertaken a wildlife audit of development sites in 2012. Suffolk Wildlife Trust Trading Ltd was commissioned to undertake a new audit in 2019, and this has informed the requirements for the site allocations within the Local Plan. A detailed audit of all site allocations has been undertaken, providing comprehensive advice in relation to biodiversity constraints and opportunities at each site. Where a site allocation is in close proximity to the Orwell Estuary this is highlighted, and sites contributing to wider wildlife corridors are noted. In particular, the commission includes highlighting where biodiversity net gains should be focussed, in terms of locations and species or habitats of local importance.
- 9.5 The 2019 audit is a valuable resource and key evidence base report for the Local Plan, and it is comprehensively referenced within the Local Plan, indicating that any site proposal being taken forward must have regard for the audit's

recommendations as part of submitted planning application documents. It will be important for the audit to continue to be used for each site by Development Management Officers, at both the pre-application and application stage.

- 9.6 Policy CS4 currently does not make reference to the wildlife audit, and whilst it includes biodiversity enhancement, it does not specifically require biodiversity net gains through development, in accordance with the NPPF. It is recommended that this policy and supporting text could be strengthened in relation to these points. As advised in the screening table, it would also be beneficial to link biodiversity net gains into Local Plan monitoring.

Appropriate assessment conclusions for biodiversity net gain

- 9.7 The wildlife audit provides a comprehensive evidence base for the site allocations, and its profile now needs to be raised within the Local Plan as a key resource for developers to refer to in early design of development proposals, and to help inform biodiversity net gains. Policy CS4 should be strengthened to refer to this evidence, application of the mitigation hierarchy with the need to design biodiversity assets into development, retaining existing assets and providing biodiversity net gains.

10. Conclusions and Next Steps

- 10.1 This HRA was initially prepared for the Preferred Options stage for the Ipswich Local Plan Review and has now been updated for the Final Draft Plan. It provides recommendations from the screening assessment for policy wording changes, and also includes appropriate assessment sections in relation to key impact pathways identified as the screening for likely significant effects. Appropriate assessment conclusions are provided for each impact pathway, setting out recommendations to be undertaken, either within the Local Plan text or as actions alongside the implementation of the Local Plan. Impact pathways are considered as in-combination effects across the plan, or where necessary as individual risks from specific site allocations. Where relevant, cross boundary in-combination effects are also assessed, most notably for recreation impacts.
- 10.2 It is now possible to advise that, subject to the recommendations within the screening table and the appropriate assessment sections, the plan will not lead to any adverse effects on European wildlife sites within and in the vicinity of the Ipswich Borough. The identified recommendations do not raise a major concern that would significantly alter the direction and quantum of growth for the Borough, rather they are matters that can be resolved alongside the progression of the plan to submission for Examination. A final check of the plan at modifications stage will ensure that these matters have been progressed.
- 10.3 This report will be updated to give a final HRA record before adoption of the Ipswich Borough Local Plan.

11. References

- Banks, P. B., & Bryant, J. V. (2007). Four-legged friend of foe? Dog-walking displaces native birds from natural areas. *Biology Letters*, 3(6), 611–613.
- Barnard, A. (2003). Getting the Facts - Dog Walking and Visitor Number Surveys at Burnham Beeches and their Implications for the Management Process. *Countryside Recreation*, 11(2), 16–19.
- Beale, C. M., & Monaghan, P. (2004). Human disturbance: people as predation-free predators? *Journal of Applied Ecology*, 41(2), 335–343.
- Beale, C. M., & Monaghan, P. (2005). Modeling the Effects of Limiting the Number of Visitors on Failure Rates of Seabird Nests. *Conservation Biology*, 19, 2015–2019.
- Bellefleur, D., Lee, P., & Ronconi, R. A. (2009). The impact of recreational boat traffic on Marbled Murrelets (*Brachyramphus marmoratus*). *Journal of Environmental Management*, 90(1), 531–538. doi: 10.1016/j.jenvman.2007.12.002
- Bobbink, R., Hornung, M., & Roelofs, J. G. M. (1998). The effects of air-borne nitrogen pollutants on species diversity in natural and semi-natural European vegetation. *Journal of Ecology*, 86(5), 717–738. doi: doi:10.1046/j.1365-2745.1998.8650717.x
- Brawn, J., Robinson, S., & Ill, F. T. (2001). The role of disturbance in the ecology and conservation of birds. *Annual Review of Ecology and Systematics*, 32(2001), 251–276.
- Cavalli, M., Baladrón, A. V., Isacch, J. P., Biondi, L. M., & Bó, M. S. (2016). Differential risk perception of rural and urban Burrowing Owls exposed to humans and dogs. *Behavioural Processes*, 124, 60–65. doi: 10.1016/j.beproc.2015.12.006
- Clarke, Ralph T., Liley, D., Sharp, J. M., & Green, R. E. (2013). Building Development and Roads: Implications for the Distribution of Stone Curlews across the Brecks. *PLoS ONE*, 8(8), e72984. doi: 10.1371/journal.pone.0072984
- Clarke, R.T., & Liley, D. (2013). *Further assessments of the relationship between buildings and stone curlew distribution* [Unpublished report for Breckland District Council]. Wareham, Dorset: Footprint Ecology.
- Clarke, R.T., Sharp, J., & Liley, D. (2008). *Access patterns in south-east Dorset. The Dorset household survey: consequences for future housing and greenspace provision*. Retrieved from Footprint Ecology / Poole Borough Council website: internal-pdf://Household Survey Part II, Footprint Ecology, 9 Dec 08-3502160128/Household Survey Part II, Footprint Ecology, 9 Dec 08.pdf
- Fernandez-Juricic, E., Jimenez, M. D., & Lucas, E. (2001). Alert distance as an alternative measure of bird tolerance to human disturbance: implications for park design. *Environmental Conservation*, 3, 263–269.

- Hall, C. M., Bryant, K. A., Haskard, K., Major, T., Bruce, S., & Calver, M. C. (2016). Factors determining the home ranges of pet cats: A meta-analysis. *Biological Conservation*, 203, 313–320. doi: 10.1016/j.biocon.2016.09.029
- Hill, D., Hockin, D., Price, D., Tucker, G., Morris, R., & Treweek, J. (1997). Bird disturbance: Improving the quality and utility of disturbance research. *Journal of Applied Ecology*, 34((2)), 275–288.
- Hockin, D., Ounsted, M., Gorman, M., Hill, D., Keller, V., & Barker, M. A. (1992). Examination of the effects of Disturbance on birds with reference to its importance in Ecological Assessments. *Journal of Environmental Management*, 36, 253–286.
- Kirby, J. S., & Tantram, D. A. S. (1999). *Monitoring heathland fires in Dorset: Phase 1*.
- Lafferty, K. (2001). Birds at a Southern California beach: seasonality, habitat use and disturbance by human activity. *Biodiversity and Conservation*, 10(11), 1949–1962.
- Liley, D. (2008). *Development and the North Norfolk Coast: scoping document on the issues relating to access*. Retrieved from Footprint Ecology / RSPB / Norfolk Coast Partnership website: internal-pdf://Footprint Ecology North Norfolk Coast scoping July 08-1042652161/Footprint Ecology North Norfolk Coast scoping July 08.pdf
- Liley, D., & Clarke, R. (2006). *Predicting visitor numbers to the Thames Basin Heaths*. Retrieved from Footprint Ecology / CEH website: file:///S:/reports%20%26%20pdfs/Papers%20linked%20to%20Endnote/Footprint%20Reports/Predicting%20visitor%20numbers%20to%20the%20Thames%20Basin%20Heaths,%20Liley,%20D%20and%20Clarke,%20R,%2022%20March%202006.pdf
- Liley, D., & Fearnley, H. (2012). *Poole Harbour Disturbance Study*. Footprint Ecology / Natural England.
- Liley, Durwyn, & Sutherland, W. J. (2007). Predicting the population consequences of human disturbance for Ringed Plovers *Charadrius hiaticula*: a game theory approach. *Ibis*, 149(s1), 82–94. doi: doi:10.1111/j.1474-919X.2007.00664.x
- Lowen, J., Liley, D., Underhill-Day, J., & Whitehouse, A. T. (2008). *Access and Nature Conservation Reconciliation: supplementary guidance for England*. Retrieved from internal-pdf://NECR013 Access and N C Reconciliation - Supp Guidance-2802587904/NECR013 Access and N C Reconciliation - Supp Guidance.pdf
- Mallord, J. W. (2005). *Predicting the consequences of human disturbance, urbanisation and fragmentation for a woodlark *Lullula arborea* population* (UEA, School of Biological Sciences). Retrieved from internal-pdf://J Mallord Thesis FINAL DRAFT-3883485696/J Mallord Thesis FINAL DRAFT.pdf

- Metsers, E. M., Seddon, P. J., & van Heezik, Y. M. (2010). Cat-exclusion zones in rural and urban-fringe landscapes: how large would they have to be? *Wildlife Research*, 37(1), 47–56.
- Randall, R. E. (2004). Management of coastal vegetated shingle in the United Kingdom. *Journal of Coastal Conservation*, 10(1), 159–168. doi: DOI: 10.1652/1400-0350(2004)010[0159:MOCVSI]2.0.CO;2
- Saunders, C., Selwyn, J., Richardson, S., May, V., & Heeps, C. (2000). *A review of the effects of recreational interactions within UK European marine sites*. Retrieved from UK CEED & Bournemouth University website: <file:///S:/reports%20%26%20pdfs/Papers%20linked%20to%20Endnote/CEED%20recreation%20marine%20sites.pdf>
- Sharp, J., Clarke, R. T., Liley, D., & Green, R. E. (2008). *The effect of housing development and roads on the distribution of stone curlews in the Brecks*. Retrieved from Footprint Ecology / Breckland District Council website: <internal-pdf://Breckland Report FINAL 101108 pics compressed-1042661121/Breckland Report FINAL 101108 pics compressed.pdf>
- Shaw, P. J. A., Lankey, K., & Hollingham, S. A. (1995). Impacts of trampling and dog fouling on vegetation and soil conditions on Headley Heath. *The London Naturalist*, 74, 77–82.
- Showler, D. (2010). *What is the impact of public access on the breeding success of ground-nesting and cliff-nesting birds* (Systematic Review; Completed Review Report No. CEE 05-10). Retrieved from Collaboration for Environmental Evidence, Bangor University website: <http://www.environmentalevidence.org/Documents/SR16.pdf>
- Smith-Castro, J. R., & Rodewald, A. D. (2010). Behavioral responses of nesting birds to human disturbance along recreational trails. *Journal of Field Ornithology*, 81(2), 130–138. doi: 10.1111/j.1557-9263.2010.00270.x
- Steven, R., Pickering, C., & Guy Castley, J. (2011). A review of the impacts of nature based recreation on birds. *Journal of Environmental Management*, 92(10), 2287–2294. doi: 10.1016/j.jenvman.2011.05.005
- Stevens, C. J., Duprè, C., Dorland, E., Gaudnik, C., Gowing, D. J. G., Bleeker, A., ... Dise, N. B. (2011). The impact of nitrogen deposition on acid grasslands in the Atlantic region of Europe. *Environmental Pollution*, 159(10), 2243–2250. doi: 10.1016/j.envpol.2010.11.026
- Stillman, R. A., Cox, J., Liley, D., Ravenscroft, N., Sharp, J., & Wells, M. (2009). *Solent disturbance and mitigation project: Phase I report*. Retrieved from Footprint Ecology / Solent Forum website: http://www.solentforum.org/resources/pdf/natconsv/solent_disturbance_phase1.pdf

- Taylor, E. C., Green, R. E., & Perrins, J. (2007). Stone-curlews *Burhinus oedicnemus* and recreational disturbance: developing a management tool for access. *Ibis*, *149*, 37–44. doi: 10.1111/j.1474-919X.2007.00645.x
- Thomas, K., Kvitek, R. G., & Bretz, C. (2003). Effects of human activity on the foraging behavior of sanderlings *Calidris alba*. *Biological Conservation*, *109*(1), 67–71. doi: 10.1016/S0006-3207(02)00137-4
- Thomas, R. L., Baker, P. J., & Fellowes, M. D. E. (2014). Ranging characteristics of the domestic cat (*Felis catus*) in an urban environment. *Urban Ecosystems*, *17*(4), 911–921. doi: 10.1007/s11252-014-0360-5
- Underhill-Day, J. C. (2005). *A literature review of urban effects on lowland heaths and their wildlife*. Retrieved from English Nature website: internal-pdf://EN RR 623, John Day literature review of urban effects-3794804480/EN RR 623, John Day literature review of urban effects.pdf
- Whitfield, D. P., Ruddock, M., & Bullman, R. (2008). Expert opinion as a tool for quantifying bird tolerance to human disturbance. *Biological Conservation*, *141*(11), 2708–2717.

12. Appendix 1 - The Habitats Regulations Assessment Process

- 12.1 The designation, protection and restoration of European sites is embedded in the Conservation of Habitats and Species Regulations 2017, which are commonly referred to as the 'Habitats Regulations.' The most recent version of the Habitats Regulations does not affect the principles of European site assessment as defined by the previous Regulations, and which forms the focus of this report. Regulation numbers have changed from the 2010 Regulations.
- 12.2 The Habitats Regulations are in place to transpose European legislation set out within the Habitats Directive (Council Directive 92/43/EEC), which affords protection to plants, animals and habitats that are rare or vulnerable in a European context, and the Birds Directive (Council Directive 2009/147/EC), which originally came into force in 1979, and which protects rare and vulnerable birds and their habitats. These key pieces of European legislation seek to protect, conserve and restore habitats and species that are of utmost conservation importance and concern across Europe. Although the Habitats Regulations transpose the European legislation into domestic legislation, the European legislation still directly applies, and in some instances, it is better to look to the parent Directives to clarify particular duties and re-affirm the overarching purpose of the legislation.
- 12.3 European sites include Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) classified under the Birds Directive. The suite of European sites includes those in the marine environment as well as terrestrial, freshwater and coastal sites. European sites have the benefit of the highest level of legislative protection for biodiversity. Member states have specific duties in terms of avoiding deterioration of habitats and species for which sites are designated or classified, and stringent tests have to be met before plans and projects can be permitted, with a precautionary approach embedded in the legislation, i.e. it is necessary to demonstrate that impacts will not occur, rather than they will. The overarching objective is to maintain sites and their interest features in an ecologically robust and viable state, able to sustain and thrive into the long term, with adequate resilience against natural influences. Where sites are not achieving their potential, the focus should be on restoration.
- 12.4 The UK is also a contracting party to the Ramsar Convention, which is a global convention to protect wetlands of international importance, especially those wetlands utilised as waterfowl habitat. In order to ensure compliance with the requirements of the Convention, the UK Government expects all competent

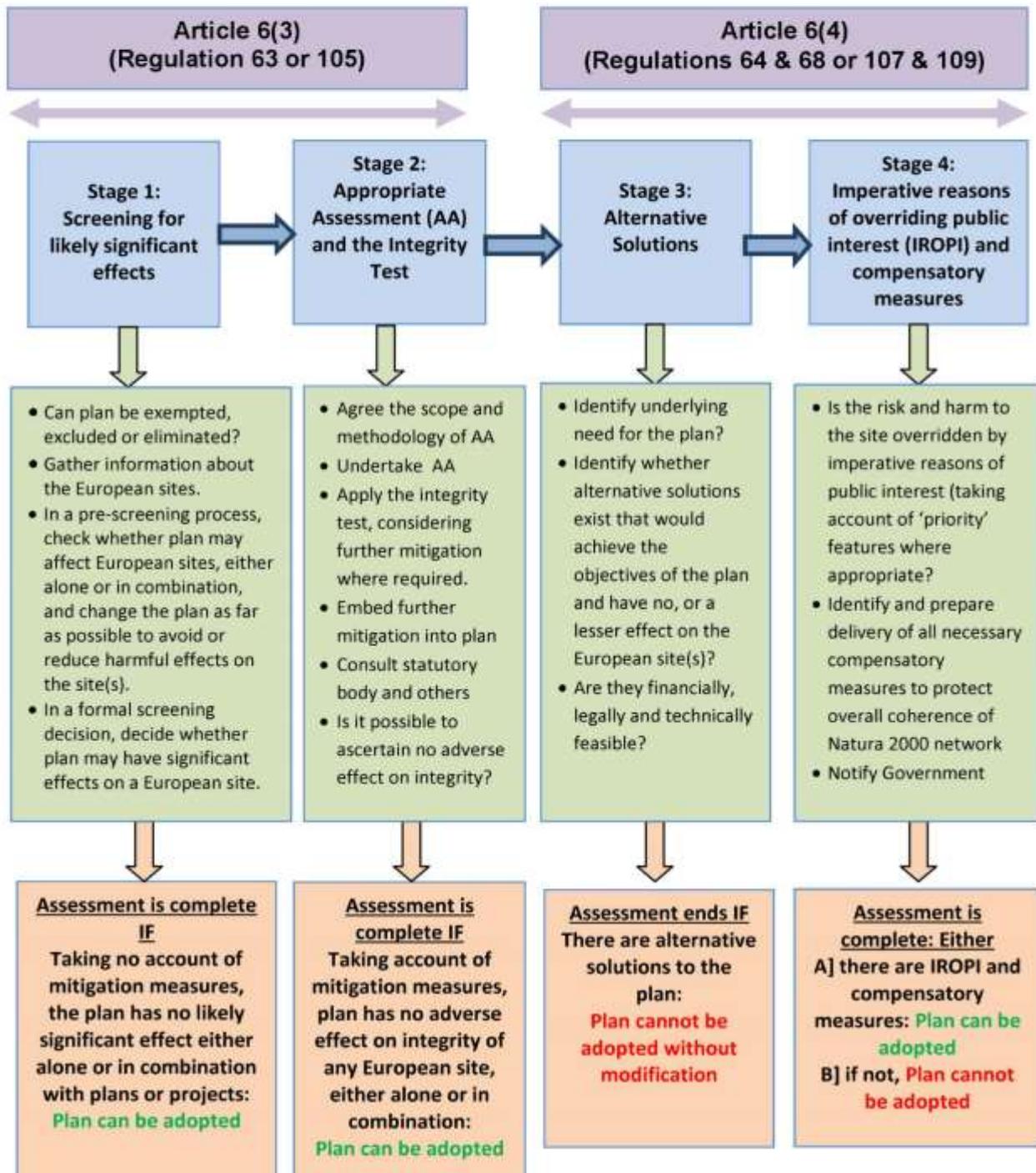
authorities to treat listed Ramsar sites as if they are part of the suite of designated European sites, as a matter of government policy, as set out in Section 118 of the National Planning Policy Framework. Most Ramsar sites are also a SPA or SAC, but the Ramsar features and boundary lines may vary from those for which the site is designated as a SPA or SAC.

- 12.5 It should be noted that in addition to Ramsar sites, the National Planning Policy Framework also requires the legislation to be applied to potential SPAs and possible SACs, and areas identified or required for compensatory measures where previous plans or projects have not been able to rule out adverse effects on site integrity, yet their implementation needs meet the exceptional tests of Regulation 64 of the Habitats Regulations, as described below.
- 12.6 The step by step process of HRA is summarised in Figure 1 below, which is taken from the Habitats Regulations Handbook, a subscription publication published by DTA Publications who are a nationally leading authority on the application of the Habitats Regulations.
- 12.7 Within the Habitats Regulations, local planning authorities, as public bodies, are given specific duties as ‘competent authorities’ with regard to the protection of sites designated or classified for their species and habitats of European importance. Competent authorities are any public body individual holding public office with a statutory remit and function, and the requirements of the legislation apply where the competent authority is undertaking or implementing a plan or project, or authorising others to do so. Regulation 63 of the Habitats Regulations sets out the HRA process for plans and projects, which includes development proposals for which planning permission is sought. Additionally, Regulation 105 specifically sets out the process for assessing emerging land use plans.
- 12.8 The step by step approach to HRA is the process by which a competent authority considers any potential impacts on European sites that may arise from a plan or project that they are either undertaking themselves or permitting an applicant to undertake. The step by step process of assessment can be broken down into the following stages, which should be undertaken in sequence:
- Check that the plan or project is not directly connected with or necessary for the management of the European site
 - Check whether the plan or project is likely to have a significant effect on any European site, from the plan or project alone
 - Check whether the plan or project is likely to have a significant effect on any European site, from the plan or project in-combination with other plans or projects
 - Carry out an Appropriate Assessment
 - Ascertain whether an adverse effect on site integrity can be ruled out

- 12.9 Throughout all stages, there is a continual consideration of the options available to avoid and mitigate any identified potential impacts. A competent authority may consider that there is a need to undertake further levels of evidence gathering and assessment in order to have certainty, and this is the Appropriate Assessment stage. At this point the competent authority may identify the need to add to or modify the project in order to adequately protect the European site, and these mitigation measures may be added through the imposition of particular restrictions and conditions.
- 12.10 For plans, the stages of HRA are often quite fluid, with the plan normally being prepared by the competent authority itself. This gives the competent authority the opportunity to repeatedly explore options to prevent impacts, refine the plan and rescreen it to demonstrate that all potential risks to European sites have been successfully dealt with.
- 12.11 When preparing a plan, a competent authority may therefore go through a continued assessment as the plan develops, enabling the assessment to inform the development of the plan. For example, a competent authority may choose to pursue an amended or different option where impacts can be avoided, rather than continue to assess an option that has the potential to significantly affect European site interest features.
- 12.12 After completing an assessment, a competent authority should only approve a project or give effect to a plan where it can be ascertained that there will not be an adverse effect on the integrity of the European site(s) in question. In order to reach this conclusion, the competent authority may have made changes to the plan, or modified the project with restrictions or conditions, in light of their Appropriate Assessment findings.
- 12.13 Where adverse effects cannot be ruled out, there are further exceptional tests set out in Regulation 64 for plans and projects and in Regulation 107 specifically for land use plans. Exceptionally, a plan or project could be taken forward for imperative reasons of overriding public interest where adverse effects cannot be ruled out and there are no alternative solutions. It should be noted that meeting these tests is a rare occurrence and ordinarily, competent authorities seek to ensure that a plan or project is fully mitigated for, or it does not proceed.
- 12.14 In such circumstances where a competent authority considers that a plan or project should proceed under Regulations 64 or 107, they must notify the relevant Secretary of State. Normally, planning decisions and competent authority duties are then transferred, becoming the responsibility of the Secretary of State, unless on considering the information, the planning authority is directed by the Secretary of State to make their own decision on the plan or

project at the local level. The decision maker, whether the Secretary of State or the planning authority, should give full consideration to any proposed 'overriding reasons' for which a plan or project should proceed despite being unable to rule out adverse effects on European site interest features, and ensure that those reasons are in the public interest and are such that they override the potential harm. The decision maker will also need to secure any necessary compensatory measures, to ensure the continued overall coherence of the European site network if such a plan or project is allowed to proceed.

Outline of the four-stage approach to the assessment of plans under the Habitats Regulations



Extract from *The Habitats Regulations Assessment Handbook*, www.dtapublications.co.uk
 © DTA Publications Limited (October 2018) all rights reserved
 This work is registered with the UK Copyright Service

Figure 1: Outline of the assessment of plans under the Habitat Regulations from DTA Publications.

13. Appendix 2 –Conservation Objectives

- 13.1 As required by the Directives, 'Conservation Objectives' have been established by Natural England, which should define the required ecologically robust state for each European site interest feature. All sites should be meeting their conservation objectives. When being fully met, each site will be adequately contributing to the overall favourable conservation status of the species or habitat interest feature across its natural range. Where conservation objectives are not being met at a site level, and the interest feature is therefore not contributing to overall favourable conservation status of the species or habitat, plans should be in place for adequate restoration.
- 13.2 Natural England has embarked on a project to renew all European site Conservation Objectives, in order to ensure that they are up to date, comprehensive and easier for developers and consultants to use to inform project level HRAs in a consistent way. In 2012, Natural England issued now a set of generic European site Conservation Objectives, which should be applied to each interest feature of each European site. These generic objectives are the first stage in the project to renew conservation objectives, and the second stage, which is to provide more detailed and site-specific information for each site to support the generic objectives, is now underway.
- 13.3 The new list of generic Conservation Objectives for each European site includes an overarching objective, followed by a list of attributes that are essential for the achievement of the overarching objective. Whilst the generic objectives currently issued are standardised, they are to be applied to each interest feature of each European site, and the application and achievement of those objectives will therefore be site specific and dependant on the nature and characteristics of the site. The second stage, provision of the more supplementary information to underpin these generic objectives, will provide much more site-specific information, and this detail will play a fundamental role in informing HRAs, and importantly will give greater clarity to what might constitute an adverse effect on a site interest feature.
- 13.4 In the interim, Natural England advises that HRAs should use the generic objectives and apply them to the site-specific situation. This should be supported by comprehensive and up to date background information relating to the site.
- 13.5 For SPAs, the overarching objective is to:
- 13.6 'Avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is

maintained and the site makes a full contribution to achieving the aims of the Birds Directive.'

- 13.7 This is achieved by, subject to natural change, maintaining and restoring:
- The extent and distribution of the habitats of the qualifying features.
 - The structure and function of the habitats of the qualifying features.
 - The supporting processes on which the habitats of the qualifying features rely.
 - The populations of the qualifying features.
 - The distribution of the qualifying features within the site.

- 13.8 For SACs, the overarching objective is to:

'Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features.'

- 13.9 This is achieved by, subject to natural change, maintaining and restoring:
- The extent and distribution of the qualifying natural habitats and habitats of qualifying species.
 - The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species.
 - The supporting processes on which qualifying natural habitats and habitats of qualifying species rely.
 - The populations of qualifying species.
 - The distribution of qualifying species within the site.

- 13.10 Conservation objectives inform any HRA of a plan or project, by identifying what the interest features for the site should be achieving, and what impacts may be significant for the site in terms of undermining the site's ability to meet its conservation objectives.

14. Appendix 3 – The Nature Conservation Interest of the European Sites

- 14.1 The Ipswich Borough has the Stour and Orwell Estuaries SPA within its administrative boundary, and a number of additional European sites are located outside the administrative area but are of relevance to the Local Plan. The range of sites, habitats and designations is complex with some areas having more than one designation.
- 14.2 The relevant European sites are summarised in Table 5 below, where the interest features, threats and pressures and links to the relevant conservation objectives are listed. These are the sites screened in as being of relevance to the HRA.

Table 5: Summary of relevant European sites, their interest features and relevant pressures/threats. Pressures/threats are taken from the [site improvement plans](#) (SIP) and are listed in priority order. Hyperlinks in the first column link to the relevant site page on the Natural England website, providing details of the site’s conservation objectives, citation etc. Pale blue shading indicates marine sites.

B = breeding, NB = non-breeding

Site	Reason for designation (# denotes UK special responsibility)	Pressures and threats (from relevant SIP)
Alde-Ore & Butley Estuaries SAC, Alde-Ore Estuary SPA Also a Ramsar site	H1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) H1130 Estuaries H1140 Mudflats and sandflats not covered by seawater at low tide A151(NB) <i>Philomachus pugnax</i> : Ruff A132(NB) <i>Recurvirostra avosetta</i> : Pied avocet A081(B) <i>Circus aeruginosus</i> : Eurasian marsh harrier A162(NB) <i>Tringa totanus</i> : Common redshank A132(B) <i>Recurvirostra avosetta</i> : Pied avocet A183(B) <i>Larus fuscus</i> : Lesser black-backed gull A191(B) <i>Sterna sandvicensis</i> : Sandwich tern A195(B) <i>Sterna albifrons</i> : Little tern	Hydrological changes, public access/disturbance, inappropriate coastal management, coastal squeeze, inappropriate pest control, changes in species distributions, invasive species, air pollution, fisheries (commercial marine and estuarine)
Sandlings SPA	A224(B) <i>Caprimulgus europaeus</i> : European nightjar A246(B) <i>Lullula arborea</i> : Woodlark	Changes in species distributions, inappropriate scrub control, deer, air pollution, public access/disturbance,
Deben Estuary SPA Also a Ramsar site	A675(NB) <i>Branta bernicla bernicla</i> : Dark-bellied brent goose A132(NB) <i>Recurvirostra avosetta</i> : Avocet	Coastal squeeze, disturbance to birds, water and air pollution
Orfordness to Shingle Street SAC	H1210 Annual vegetation of drift lines H1220 Perennial vegetation of stony banks H1150# Coastal lagoons	
Stour and Orwell Estuaries SPA Also a Ramsar site	A156(NB) <i>Limosa limosa islandica</i> : Black-tailed godwit A143(NB) <i>Calidris canutus</i> : Red knot A149(NB) <i>Calidris alpina alpina</i> : Dunlin Waterbird assemblage A162(NB) <i>Tringa totanus</i> : Common redshank A141(NB) <i>Pluvialis squatarola</i> : Grey plover	Coastal squeeze, disturbance to birds, air pollution and new development

Ipswich Local Plan Review HRA

Site	Reason for designation (# denotes UK special responsibility)	Pressures and threats (from relevant SIP)
	<p>A046a(NB) <i>Branta bernicla bernicla</i>: Dark-bellied brent goose</p> <p>A054(NB) <i>Anas acuta</i>: Northern pintail</p> <p>A132(B) <i>Recurvirostra avosetta</i>: Pied avocet</p>	