

Habitats Regulations Assessment of the South Warwickshire Local Plan

Issues and Options Consultation

Preliminary HRA Scoping Report

November 2022



LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

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Issues and Options Consultation Preliminary HRA Scoping Report

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Contents

1	Introduction.....	5
1.1	South Warwickshire Local Plan	5
1.2	Purpose of this report	5
2	The HRA process	7
2.1	Overview	7
2.2	Stratford-on-Avon Core Strategy.....	9
2.3	Warwick District Local Plan.....	10
3	Methodology.....	11
3.1	HRA methodology.....	11
3.2	Stage 1: Screening for likely significant effects.....	11
3.3	What is a Likely Significant Effect?	13
3.4	In-combination effects	14
3.5	Consideration of mitigation measures.....	16
3.6	Stage 2: Appropriate Assessment and Integrity Test.....	17
3.7	Dealing with uncertainty	17
3.8	The Precautionary Principle	18
4	South Warwickshire Local Plan.....	19
4.1	South Warwickshire Local Plan	19
4.2	Progress to date.....	19
5	Habitats sites	20
5.1	Zone of influence	20
5.2	Identification of Habitats sites	20
5.3	Ecological information.....	24
6	Impact Pathways	27
6.1	Gathering information about impact pathways	27
6.2	Threats and pressures	27
6.3	Air Pollution	28
6.4	Hydrology (water resources (quantity) and water quality)	31
6.5	Recreational pressure	35
6.6	Urbanisation effects.....	39
6.7	Functionally linked land.....	39
6.8	Issues and Options Preliminary Screening.....	43
6.9	Summary.....	44
7	Conclusions	46
7.1	Summary.....	46
7.2	Next steps	46

Appendix A: In-combination assessment

Appendix B: Habitats site conservation objectives, threats and pressures

Appendix C: Preliminary screening of Issues and Options consultation

List of Figures

<i>Figure 1.1: SWLP administrative area</i>	<i>6</i>
<i>Figure 2.1: Stages in the Habitats Regulations Assessment process.....</i>	<i>9</i>
<i>Figure 3.1: Outline of steps in stage 1; the whole screening process.....</i>	<i>12</i>
<i>Figure 3.2: Outline of the in-combination pre-screening assessment methodology.....</i>	<i>15</i>
<i>Figure 5.1: Habitats sites located within HRA search area</i>	<i>22</i>
<i>Figure 5.2: Location of the Severn Estuary designations in relation to the SWLP boundary.....</i>	<i>22</i>
<i>Figure 5.3: Location of the Humber Estuary designations in relation to the SWLP boundary.....</i>	<i>23</i>

List of Tables

<i>Table 3.1: Assessment and reasoning categories from Part F of the DTA Handbook</i>	<i>13</i>
<i>Table 5.1: Habitats sites for consideration in the HRA.....</i>	<i>21</i>
<i>Table 6.1: Atmospheric pollution pathways of impact to Habitats sites within 20km of the SWLP administrative area</i>	<i>31</i>
<i>Table 6.2: Water resource, levels and quality pathways of impact to Habitats sites.....</i>	<i>34</i>
<i>Table 6.3: Hydrology impacts: Recommendations and further work</i>	<i>35</i>
<i>Table 6.4: Review of recreational disturbance pathways of impact to Habitats sites.....</i>	<i>37</i>
<i>Table 6.5: Recreational pressure: Recommendations and further work.....</i>	<i>39</i>
<i>Table 6.6: Functionally Linked Land: Recommendations and further work.....</i>	<i>43</i>
<i>Table 6.7: Summary of pathways of impact at each Habitat site from the SWLP.....</i>	<i>45</i>

Abbreviations

AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
ANGSt	Accessible Natural Greenspace Standards
AP	Assessment Point
APIS	Air Pollution Information System
CAMS	Catchment Abstraction Management Plan
CJEU	Court of Justice of the European Union
CIEEM	Chartered Institute of Ecology and Environmental Management
CSMG	UK Common Standards for Monitoring Guidance
DLUHC	Department for Levelling Up, Housing and Communities
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
EA	Environment Agency
GI	Green Infrastructure
HDV	Heavy Duty Vehicles
HRA	Habitats Regulations Assessment
IAQM	Institute of Air Quality Management
IRZ	Impact Risk Zone
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
LPA	Local Planning Authority
LSE	Likely Significant Effect
NE	Natural England
NPPF	National Planning Policy Framework
pSAC	Possible / proposed Special Area of Conservation
pSPA	Potential Special Protection Area
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SIP	Site Improvement Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SuDS	Sustainable Urban Drainage
SWLP	South Warwickshire Local Plan
WFD	Water Framework Directive

WRMP	Water Resources Management Plan
WRZ	Water Resource Zone
WwTW	Wastewater Treatment Works
ZoI	Zone of Influence

1 Introduction

1.1 South Warwickshire Local Plan

1.1.1 Stratford-on-Avon and Warwick District Councils are working together to produce a new South Warwickshire Local Plan (SWLP) to cover their combined geographical area. Stratford-on-Avon District and Warwick District lie within the south of Warwickshire County. Figure 1.1 shows the administrative boundaries of Stratford-on-Avon District and Warwick District Councils, which comprise the plan area for the SWLP.

1.1.2 The SWLP will set out planning policies that both Councils will use to assess applications for development and change of use as well as identifying (allocating) sites for new development proposals to meet their future development needs in terms of housing and job growth. The SWLP will also look at necessary infrastructure required to support growth and address ways in which the Councils will mitigate and adapt to climate change through land use planning. At the time of writing, it is envisaged that the SWLP will cover the period up to 2050.

1.2 Purpose of this report

1.2.1 Lepus Consulting has prepared this Preliminary Habitats Regulations Assessment (HRA) Scoping Report on behalf of Stratford-on-Avon District and Warwick District Councils (referred to hereafter as the Councils).

1.2.2 HRA is required in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended)¹, known as the Habitats Regulations. When a plan is not directly connected with, or necessary for, the conservation management of a Habitats site, a competent authority is required to carry out an assessment under the Habitats Regulations, known as an HRA, to test if that plan could significantly harm the designated features of a Habitats site².

1.2.3 The most effective way to deliver the outputs of HRA is to ensure that it is incorporated into the plan-making process as early as possible. This allows adverse impacts to be avoided in the first instance through strategic planning of options or, where this is not possible, effective mitigation. Mitigation measures can then be designed to avoid, cancel or reduce significant effects following the mitigation hierarchy. Such measures may take the form of guiding principles and policy requirements, drawing on existing best practice. Should mitigation not be possible there may be a need to consider alternatives which may require some more complex changes to a plan.

¹ The Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> [Date Accessed: 29/01/21] as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573> [Date Accessed: 08/06/22]

² Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment

- 1.2.4 The purpose of this report is therefore to provide HRA guidance and advice to the Councils at the early stages of the SWLP review. This preliminary HRA scoping exercise aims to identify those Habitats sites that will be considered in the HRA process through application of a 'source-pathway-receptor' model. In addition, key constraints and opportunities at Habitats sites and likely pathways of impact from the SWLP are set out. This report outlines HRA methodologies that will be taken forward alongside the SWLP and the key issues for consideration. It also provides a preliminary screening of the options considered through the SWLP Issues and Options Consultation³.

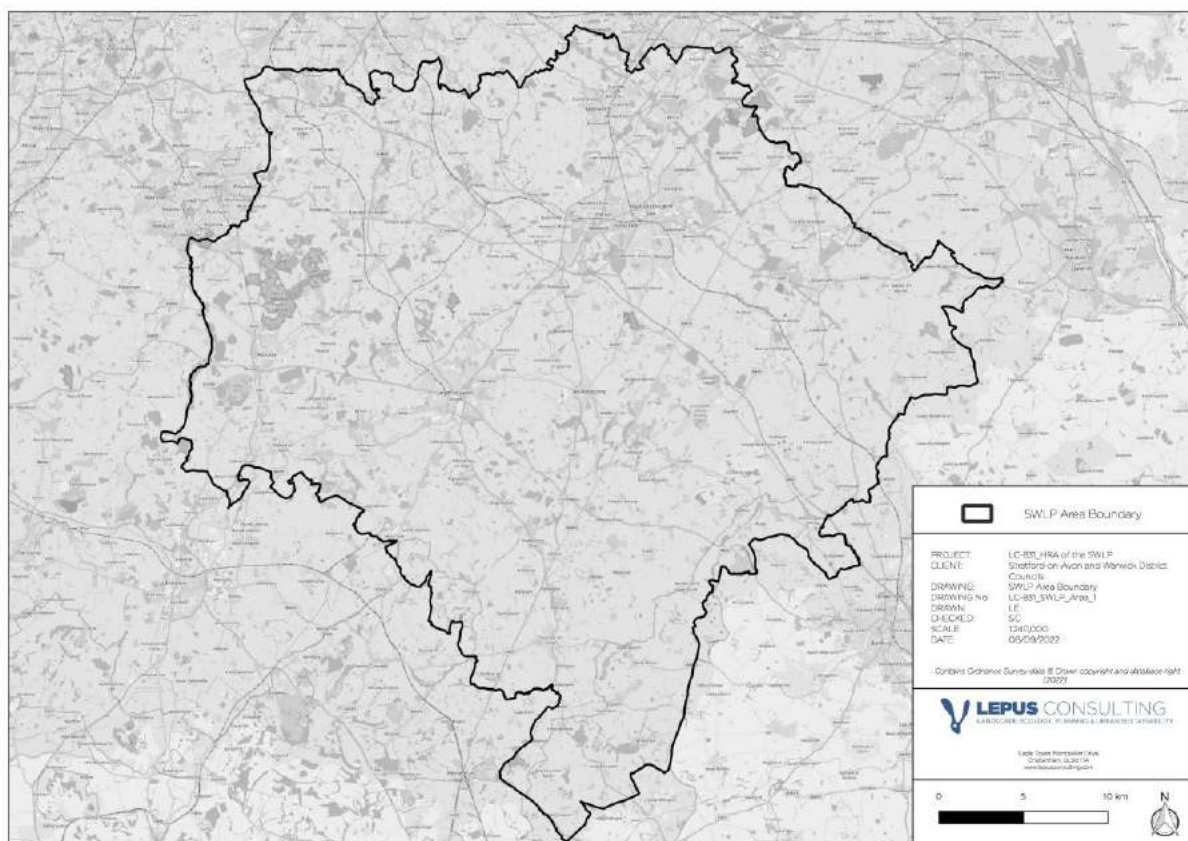


Figure 1.1: SWLP administrative area

³ South Warwickshire Councils. January 2023. South Warwickshire Stage 2: Issues and Options Consultation.

2 The HRA process

2.1 Overview

- 2.1.1 The HRA process assesses the potential effects of a plan or project on the conservation objectives of sites designated under the Habitats⁴ and Birds⁵ Directives. These sites form a system of internationally important sites throughout Europe known collectively as the 'Natura 2000 Network'. In line with the Habitats Regulations, UK sites which were part of the Natura 2000 Network before leaving the EU, have become part of the National Site Network.
- 2.1.2 The Habitats Regulations⁶ provide a definition of a 'European site' at Regulation 8. These include Special Areas of Conservation (SAC), Sites of Community Importance, Special Protection Areas (SPA) and sites proposed to the European Commission in accordance with Article 4(1) of the Habitats Directive.
- 2.1.3 In addition, policy in England and Wales notes that the following sites should also be given the same level of protection as a European site⁷. European sites together with sites set out in national policy (listed below) are referred to in England and Wales as a Habitats site⁸.
- A potential SPA (pSPA);
 - A possible / proposed SAC (pSAC);
 - Listed and proposed Ramsar Sites (Wetland of International Importance under the Ramsar Convention); and
 - In England, sites identified or required as compensation measures for adverse effects on statutory European sites, pSPA, pSAC and listed or proposed Ramsar sites.

⁴ Official Journal of the European Communities (1992). Council Directive 92 /43 /EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

⁵ Official Journal of the European Communities (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

⁶ Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents> [Date Accessed: 24/02/22] as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573> [Date Accessed: 27/06/22]

⁷ Ministry of Housing, Communities & Local Government (2021). National Planning Policy Framework. Para 181. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Date Accessed: 27/06/22]

⁸ Habitats site: Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites. Ministry of Housing, Communities & Local Government (2021). National Planning Policy Framework. Para 181. Available in Annex 2 (Glossary) at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf [Date Accessed: 27/06/22]

- 2.1.4 This report refers to both statutory sites and sites protected through national planning policy as a 'Habitats site' for ease of reference. Regulation 63 of the Habitats Regulations notes a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project, must make an appropriate assessment of the implications of the plan or project for that site in view of its site conservation objectives. These tests are referred to collectively as a Habitats Regulations Assessment (HRA).
- 2.1.5 HRA applies to plans or projects which are likely to have a significant effect on a Habitats site (either alone or in combination with other plans or projects), and / or are not directly connected with or necessary to the management of that site.
- 2.1.6 There is no set methodology or specification for carrying out and recording the outcomes of the assessment process. The Habitats Regulations Assessment Handbook, produced by David Tyldesley Associates (referred to hereafter as the 'DTA Handbook'), provides an industry recognised good practice approach to HRA. The DTA Handbook, and in particular 'Practical Guidance for the Assessment of Plans under the Regulations'⁹, which forms part F, has therefore been used to prepare this report, alongside reference to Government Guidance on Appropriate Assessment¹⁰. The DTA Handbook is widely considered to be an appropriate basis for the HRA of plans.
- 2.1.7 A step-by-step guide to the methodology adopted in this assessment, as outlined in the DTA Handbook, is illustrated in Figure 2.1. In summary, the four key stages of the HRA process are as follows:
- Stage 1. Screening: Screening to determine if the SWLP would be likely to have a significant effect on a Habitats site. This stage comprises the identification of potential effects associated with the SWLP on Habitats sites and an assessment of the likely significance of these effects.
 - Stage 2. Appropriate Assessment and the 'Integrity Test': Assessment to ascertain whether or not the SWLP would have a significant adverse impact on the integrity of any Habitats site to be made by the Competent Authority (in this instance Stratford-on-Avon District and Warwick District Councils). This stage comprises an impact assessment and evaluation in view of a Habitats site's conservation objectives. Where adverse impacts on site integrity are identified, consideration is given to alternative options and mitigation measures which are tested.
 - Stage 3. Alternative solutions: Deciding whether there are alternative solutions which would avoid or have a lesser effect on a Habitats site.
 - Stage 4. Imperative reasons of overriding public interest and compensatory measures: Considering imperative reasons of overriding public interest and securing compensatory measures.

⁹ Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (September) (2013) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk [Date Accessed: 09/06/22]

¹⁰ Government Guidance on Appropriate Assessment. July 2019. Guidance on the use of Habitats Regulations Assessment. Available at: <https://www.gov.uk/guidance/appropriate-assessment> [Date Accessed: 09/06/22]

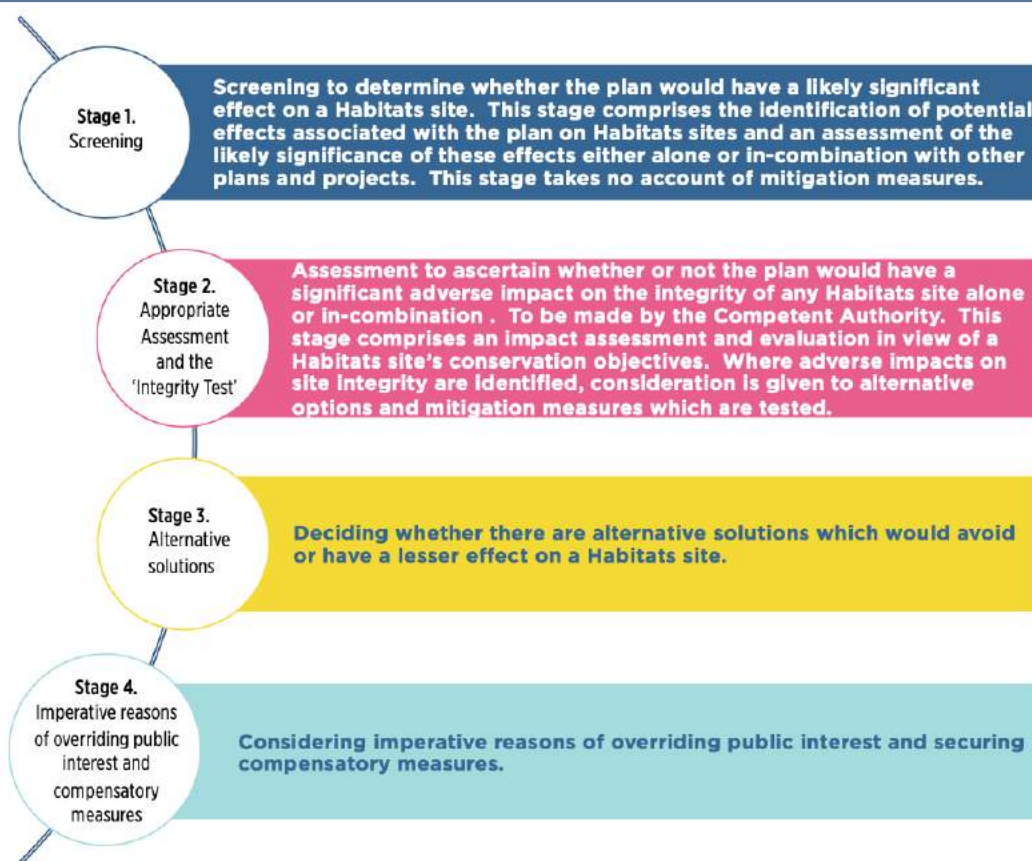


Figure 2.1: Stages in the Habitats Regulations Assessment process

2.2 Stratford-on-Avon Core Strategy

- 2.2.1 The Stratford-on-Avon Core Strategy was adopted on 11 July 2016¹¹ and sets out development strategy and planning policies. It was supported by an HRA which was undertaken iteratively throughout plan preparation¹².
- 2.2.2 The Core Strategy HRA¹³ looked at likely significant effects upon Habitats sites within 20km of the plan area focusing specifically on hydrological pathways of impact. Taking into consideration higher level water related protective policy (the Water Resource Management Plan) and the outputs of a Water Cycle Study, the HRA concluded that there would be no adverse impacts on the integrity of a Habitats site either alone or in-combination.

¹¹ Stratford-on-Avon Core Strategy. July 2016. Stratford-on-Avon District. Available at: <https://www.stratford.gov.uk/doc/173518/name/SDC%20CORE%20STRATEGY%202011%202031%20July%202016.pdf> [Date Accessed: 24/08/22]

¹² Stratford-on-Avon Core Strategy Habitats Regulations Assessment Technical Evidence Base Available at: <https://www.stratford.gov.uk/planning-building/sustainability.cfm> [Date Accessed: 24/08/22]

¹³ Lepus Consulting. April 2014. Habitats Regulations Assessment of the Stratford-on-Avon Core Strategy. Proposed Submission Version of the Core Strategy.

2.3 Warwick District Local Plan

- 2.3.1 The Warwick District Local Plan was adopted in September 2017¹⁴ and sets out development strategy and planning policies. It was supported by an HRA which was undertaken iteratively throughout plan preparation¹⁵.
- 2.3.2 The Warwick District Local Plan HRA¹⁶ focused on Ensor's Pool SAC. Following consultation with Severn Trent Water confirmed no likely significant effects upon the SAC.

¹⁴ Warwick District Council. September 2017. Warwick District Local Plan. Available at: https://www.warwickdc.gov.uk/downloads/file/4623/new_local_plan [Date Accessed: 24/08/22]

¹⁵ Warwick District Council Habitats Regulations Assessment Technical Evidence Base Available at: <https://www.warwickdc.gov.uk/downloads/download/668/biodiversity> [Date Accessed: 24/08/22]

¹⁶ Warwick District Council. March 2014. Local Plan Habitats Regulations Assessment. Screening Report.

3 Methodology

3.1 HRA methodology

- 3.1.1 HRA is a rigorous precautionary process centred around the conservation objectives of a Habitats site's qualifying interests. It is intended to ensure that designated Habitats sites are protected from impacts that could adversely affect their integrity, as required by the Birds and Habitats Directives. A step-by-step guide to this methodology is outlined in the DTA Handbook and has been reproduced in Figure 3.1. This chapter outlines the methodology that will be followed in the HRA of the Local Plan as the plan develops.

3.2 Stage 1: Screening for likely significant effects

- 3.2.1 The first stage in the HRA process comprises the screening stage. The purpose of the screening process is to firstly determine whether a plan is either (1) exempt (because it is directly connected with or necessary to the management of a Habitats site), (2) whether it can be excluded (because it is not a plan), or (3) eliminated (because there would be no conceivable effects), from the HRA process. If none of these conditions apply, it is next necessary to identify whether there are any aspects of the plan which may lead to likely significant effects at a Habitats site, either alone or in combination with other plans or projects.
- 3.2.2 Screening considers the potential 'significance' of adverse effects. Where elements of the Local Plan will not result in a likely significant effect (LSE) on a Habitats site (alone or in combination) these are screened out and not considered in further detail in the process. The screening stage follows a number of steps which are outlined in Figure 3.1.

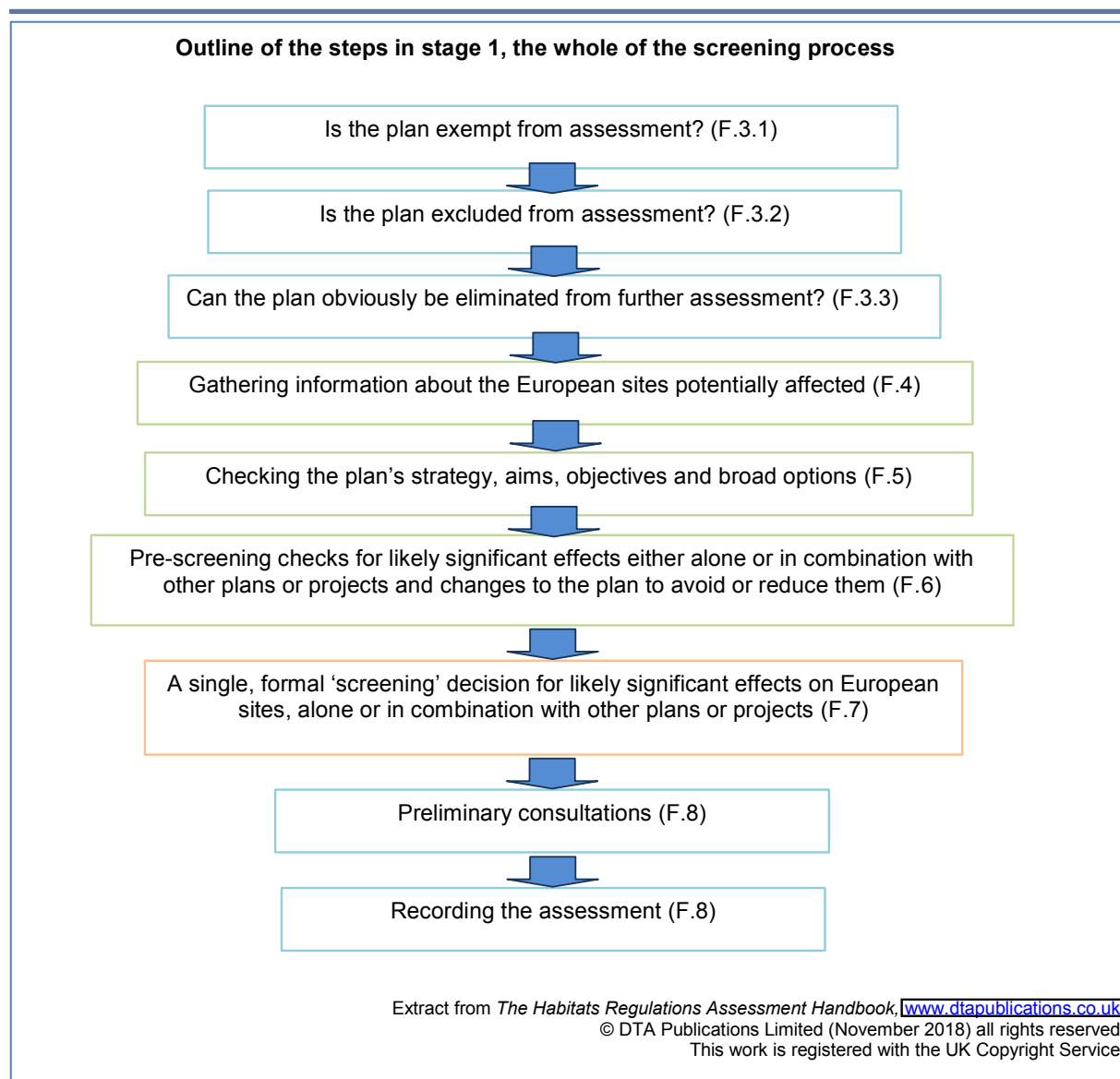


Figure 3.1: Outline of steps in stage 1; the whole screening process

- 3.2.3 Pre-screening the components of a plan at the early stage of the plan-making process helps to minimise or avoid LSEs upon any Habitats site and as such improve the plan. The pre-screening process uses a number of evaluation codes to summarise whether or not a component of the Local Plan is likely to have LSEs alone or in-combination, see Table 3.1, and inform the formal screening decision.

Table 3.1: Assessment and reasoning categories from Part F of the DTA Handbook

Assessment and reasoning categories from Chapter F of The Habitats Regulations Assessment Handbook (DTA Publications, 2013)¹⁷:

- A. General statements of policy / general aspirations.
- B. Policies listing general criteria for testing the acceptability / sustainability of proposals.
- C. Proposal referred to but not proposed by the plan.
- D. General plan-wide environmental protection / site safeguarding / threshold policies
- E. Policies or proposals that steer change in such a way as to protect European sites from adverse effects.
- F. Policies or proposals that cannot lead to development or other change.
- G. Policies or proposals that could not have any conceivable or adverse effect on a site.
- H. Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects).
- I. Policies or proposals with a likely significant effect on a site alone.
- J. Policies or proposals unlikely to have a significant effect alone.
- K. Policies or proposals unlikely to have a significant effect either alone or in combination.
- L. Policies or proposals which might be likely to have a significant effect in combination.
- M. Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a Habitats site.

3.3 What is a Likely Significant Effect?

- 3.3.1 HRA screening provides an analysis of LSEs identified during the HRA screening process. It considers the nature, magnitude and permanence of potential effects in order to inform the plan making process.
- 3.3.2 The DTA Handbook guidance provides the following interpretation of LSEs:
- 3.3.3 *"In this context, 'likely' means risk or possibility of effects occurring that cannot be ruled out on the basis of objective information. 'Significant' effects are those that would undermine the conservation objectives for the qualifying features potentially affected, either alone or in combination with other plans or projects ... even a possibility of a significant effect occurring is sufficient to trigger an 'appropriate assessment'"*¹⁸.
- 3.3.4 With reference to the conservation status of a given species in the Habitats or Birds Directives, the following examples would be considered to constitute a significant effect:

¹⁷ Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. December 2019 edition UK: DTA Publications Ltd, www.dtapublications.co.uk

¹⁸ Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. December 2019 edition UK: DTA Publications Ltd, www.dtapublications.co.uk

- Any event which contributes to the long-term decline of the population of the species on the site;
- Any event contributing to the reduction, or to the risk of reduction, of the range of the species within the site; and
- Any event which contributes to the reduction of the size of the habitat of the species within the site.

3.3.5 Rulings from the 2012 'Sweetman'¹⁹ case provide further clarification:

3.3.6 *"The requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill".*

3.3.7 Therefore, it is not necessary for the Councils to show that the SWLP will result in no effects whatsoever on any Habitats site. Instead, the Councils are required to show that the Local Plan, either alone or in-combination with other plans and projects, will not result in an effect which undermines the conservation objectives of one or more qualifying features.

3.3.8 Determining whether an effect is significant requires careful consideration of the environmental conditions and characteristics of the Habitats site in question, as per the 2004 'Waddenzee'²⁰ case:

3.3.9 *"In assessing the potential effects of a plan or project, their significance must be established in the light, inter alia, of the characteristics and specific environmental conditions of the site concerned by that plan or project".*

3.4 In-combination effects

3.4.1 Where screening concludes there are no LSEs from the SWLP alone, it is next necessary to consider whether the effects of the policies in-combination with other plans and projects would combine to result in an LSE on any Habitats site. It may be that the SWLP alone will not have a significant effect but could have a residual effect that may contribute to in-combination effects on a Habitats site.

3.4.2 The DTA Handbook²¹ notes that *"where an aspect of a plan could have some effect on the qualifying feature(s) of a European site, but that aspect of the plan alone are unlikely to be significant, the effects of that aspect of the plan will need to be checked in combination firstly, with other effects of the same plan, and then with the effects of other plans and projects".*

¹⁹ Source: EC Case C-258-11 Reference for a Preliminary Ruling, Opinion of Advocate General Sharpston 'Sweetman' delivered on 22nd November 2012 (para 48)

²⁰ Source: EC Case C-127/02 Reference for a Preliminary Ruling 'Waddenzee' 7th Sept 2004 (para 48)

²¹ Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. December 2019 edition UK: DTA Publications Ltd, www.dtapublications.co.uk

3.4.3 As such an in-combination assessment will be undertaken as part of the HRA process at both the screening stage (where no LSE are considered possible alone, but in-combination effects are likely) and at the Appropriate Assessment stage (where, following Appropriate Assessment and mitigation, an insignificant adverse effect is still likely which has the potential to act in-combination with other plans and projects).

3.4.4 The in-combination assessment presented in Chapter F of the DTA Handbook comprises a ten-step approach as illustrated in Figure 3.2 below.



Figure 3.2: Outline of the in-combination pre-screening assessment methodology

3.4.5 Plans and projects which are considered to be of most relevance to the in-combination assessment of the Local Plan include those that have similar impact pathways. These include those plans and projects which have the potential to increase development in the HRA study area, increase recreational pressures and result in hydrological change (water quality and resources).

3.4.6 It is recognised that the status of other plans and projects will change over the timescale of the SWLP plan-making process. As such, and for the purposes of this stage of the HRA process, a list of plan and projects that will be considered in the in-combination assessment has been provided below (further detail provided in Appendix A).

- South Worcestershire Development Plan;
- Borough of Redditch Local Plan;
- Bromsgrove District Plan;
- Cotswold District Local Plan;
- Solihull Local Plan;
- Coventry Local Plan;
- The West Northamptonshire Joint Core Strategy;
- South Northamptonshire Local Plan;
- The Cherwell Local Plan;
- West Oxfordshire Local Plan;
- Tewkesbury, Cheltenham and Gloucester Joint Core Strategy;
- Tewkesbury Borough Plan;
- Gloucester City Plan;
- The Cheltenham Plan;
- Wyre Forest District Local Plan;
- Warwickshire Local Transport Plan;
- Warwickshire Minerals Local Plan; and
- Warwickshire Waste Core Strategy.

3.4.7 Other topic specific plans and projects have also been reviewed in the relevant screening sections of this report, such as the Severn, Humber and Thames River Basin Management Plans and the Severn Trent Water Resources Management Plan.

3.4.8 The approach taken to the consideration of in-combination effects is compliant with the Wealden Judgement²² which requires an in-combination approach that considers the development of neighbouring and nearby authorities when assessing likely significant effects.

3.5 Consideration of mitigation measures

3.5.1 The European Court Judgement on the interpretation of the Habitats Directive in the case of People Over Wind and Sweetman vs Coillte Teoranta (Case C-323/17²³) determined that mitigation measures are only permitted to be considered as part of an appropriate assessment.

3.5.2 It is therefore necessary to further define mitigation measures. The DTA Handbook notes that there are two types of measures as follows²⁴:

- *“Measures intended to avoid or reduce harmful effects on a European site; or*
- *Features or characteristics of a plan which are essential in defining the nature, scale, location, timing, frequency or duration of the plan’s proposals, or they*

²² Wealden District Council & Lewes District Council before Mr Justice Jay. Available at: <http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html> [Date Accessed: 27/06/22]

²³ InfoCuria (2018) Case C-323/17. Available at: <http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> [Date Accessed: 27/06/22]

²⁴ Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. November 2018 edition UK: DTA Publications Ltd, www.dtapublications.co.uk [Date Accessed: 09/06/22]

may be inseparable aspects of the plan, without which an assessment of the plan could not properly be made, in the screening decision, even though these features or characteristics may incidentally have the effect of avoiding or reducing some or all of the potentially adverse effects of a plan”.

- 3.5.3 The HRA screening process undertaken for the SWLP will not take account of incorporated mitigation or avoidance measures that are intended to avoid or reduce harmful effects on a Habitats site when assessing the LSE of the SWLP on Habitats sites. These are measures, which if removed (i.e. should they no longer be required for the benefit of a Habitats site), would still allow the lawful and practical implementation of a plan.

3.6 Stage 2: Appropriate Assessment and Integrity Test

- 3.6.1 Where LSEs are identified from the SWLP either alone or in-combination it is necessary to move to Stage 2 of the HRA process – the Appropriate Assessment and Integrity Test.
- 3.6.2 The purpose of the Appropriate Assessment (as defined by the DTA Handbook) is to *"undertake an objective, scientific assessment of the implications for the European site qualifying features potentially affected by the plan in light of their consideration objectives and other information for assessment"*²⁵.
- 3.6.3 As part of this process decision makers should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation and should consult interested parties on the possible ways of managing the risk, for instance, through the adoption of mitigation measures. Mitigation measures should aim to avoid, minimise or reduce significant effects on Habitats sites. Mitigation measures may take the form of policies within the SWLP or mitigation proposed through other plans or regulatory mechanisms. All mitigation measures must be deliverable and able to mitigate adverse effects for which they are targeted.
- 3.6.4 The Appropriate Assessment aims to present information in respect of all aspects of the SWLP and ways in which it could, either alone or in-combination with other plans and projects, affect a Habitats site.
- 3.6.5 Stratford-on-Avon District and Warwick District Councils (as the Competent Authority) must then ascertain, based on the findings of the Appropriate Assessment, whether the SWLP will adversely affect the integrity of a Habitats site either alone or in-combination with other plans and projects. This is referred to as the Integrity Test and will draw on the conclusions of the HRA reports will be prepared in support of the SWLP review taking into consideration representations made by Natural England.

3.7 Dealing with uncertainty

- 3.7.1 Uncertainty is an inherent characteristic of HRA, and decisions can be made only on currently available and relevant information. This concept is reinforced in the 7th of September 2004 'Waddenzee' ruling²⁶:

²⁵ Tyldesley, D., and Chapman, C., (2013) The Habitats Regulations Assessment Handbook. November 2018 edition UK: DTA Publications Ltd, www.dtapublications.co.uk [Date Accessed: 09/06/22]

²⁶ EC Case C-127/02 Reference for a Preliminary Ruling 'Waddenzee' 7th September 2004 Advocate General's Opinion (para 107)

- 3.7.2 *"However, the necessary certainty cannot be construed as meaning absolute certainty since that is almost impossible to attain. Instead, it is clear from the second sentence of Article 6(3) of the habitats directive that the competent authorities must take a decision having assessed all the relevant information which is set out in particular in the appropriate assessment. The conclusion of this assessment is, of necessity, subjective in nature. Therefore, the competent authorities can, from their point of view, be certain that there will be no adverse effects even though, from an objective point of view, there is no absolute certainty".*

3.8 The Precautionary Principle

- 3.8.1 The HRA process is characterised by the precautionary principle. This is described by the European Commission as being:
- 3.8.2 *"If a preliminary scientific evaluation shows that there are reasonable grounds for concern that a particular activity might lead to damaging effects on the environment, or on human, animal or plant health, which would be inconsistent with protection normally afforded to these within the European Community, the Precautionary Principle is triggered".*

4 South Warwickshire Local Plan

4.1 South Warwickshire Local Plan

4.1.1 A Local Plan is a legal document that councils are required to prepare to set out the future land use and planning policies for an area over a set period of time. The SWLP will be the Local Plan of both Stratford-on-Avon District Council and Warwick District Council areas and will run up to 2050. It will comprise of two parts as follows:

- Part 1: This part will establish a robust and flexible framework which will set out where and how much development should take place across South Warwickshire. It will include core principles and strategic policies that provide a context in which more detailed policies will follow; and
- Part 2: This part will contain more detailed policies or policies that are much more specific to a local area.

4.1.2 Once Part 1 is fully adopted, it will replace the existing strategic policies of the Stratford-on-Avon District Council Core Strategy and Warwick District Councils Local Plan.

4.2 Progress to date

4.2.1 In 2021 the Councils undertook a 'scoping and call for sites' consultation exercise²⁷ alongside stakeholder engagement. The Councils are also collating a technical evidence base to support the plan-making process, which includes this HRA report.

4.2.2 The current stage of plan preparation is the Issues and Options Consultation. This sets out some of the key issues raised at earlier stages of the plan making process and presents a number of options to overcome these. This Preliminary HRA Scoping Report has been prepared alongside the preparation of the Issues and Options consultation and provides a preliminary screening of the issues raised in this document²⁸.

²⁷ South Warwickshire Councils. May 2021. Stage 1: Scoping and Call for Sites Consultation. Available at: <https://www.southwarwickshire.org.uk/doc/210268/name/J25287%20South%20Warwickshire%20Local%20Plan%202021%20WEB.pdf> [Date Accessed: 05/10/22]

²⁸ South Warwickshire Councils. January 2023. South Warwickshire Stage 2: Issues and Options Consultation.

5 Habitats sites

5.1 Zone of influence

- 5.1.1 There is no guidance that defines the search area or zone of influence for the HRA process. Planning Practice Guidance for Appropriate Assessment indicates that²⁹:
- 5.1.2 *"The scope and content of an appropriate assessment will depend on the nature, location, duration and scale of the proposed plan or project and the interest features of the relevant site. 'Appropriate' is not a technical term. It indicates that an assessment needs to be proportionate and sufficient to support the task of the competent authority in determining whether the plan or project will adversely affect the integrity of the site".*
- 5.1.3 Therefore, in order to determine a study area for the HRA, consideration has been given to the nature and extent of potential impact pathways from the SWLP (see Section 6) and its relationship to Habitats sites. Where impact pathways to Habitats sites have been identified these are considered further in the HRA.
- 5.1.4 Stratford-on-Avon District and Warwick District Council administrative areas form the geographic extent of the SWLP (Figure 1.1). However, impacts at Habitats sites often take place outside administrative boundaries, for instance where residents travel to tourist destinations beyond an administrative area, or where Habitats sites are hydrologically connected to a plan area as set out in Section 6.5.

5.2 Identification of Habitats sites

- 5.2.1 Habitats sites to be assessed in this HRA report are identified in Table 5.1. The inclusion of sites has taken into consideration a review of pathways of impact (for instance hydrological connectivity – Section 6) and previous HRA work undertaken in support of the Stratford-on-Avon District Council and Warwick District Council existing planning framework (see Section 2.2 and 2.3).

²⁹ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment. <https://www.gov.uk/guidance/appropriate-assessment> [Date Accessed: 09/06/22]

Table 5.1: Habitats sites for consideration in the HRA

Habitats site	Location in relation to the SWLP administrative area
Bredon Hill SAC	Located outside administrative area, approx. 11.1km to the south west
Ensor's Pools SAC	Located outside administrative area, approx. 14.5km to the north east
Lyppard Grange Ponds SAC	Located outside administrative area, approx. 14.9km to the south west
Dixton Woods SAC	Located outside administrative area, approx. 18.8km to the south west
Oxford Meadows SAC	Located outside administrative area, approx. 26.1km to the south east
Severn Estuary SAC	Located outside administrative area, approx. 54.6km to the south west
Severn Estuary SPA	Located outside administrative area, approx. 54.6km to the south west
Severn Estuary Ramsar	Located outside administrative area, approx. 54.6km to the south west
Humber Estuary SAC	Located outside administrative area, approx. 143.6km to the north east
Humber Estuary Ramsar	Located outside administrative area, approx. 143.6km to the north east
Humber Estuary SPA	Located outside administrative area, approx. 153.8km to the north east

5.2.2 The locations of these sites are shown in Figures 5.1, 5.2 and 5.3.

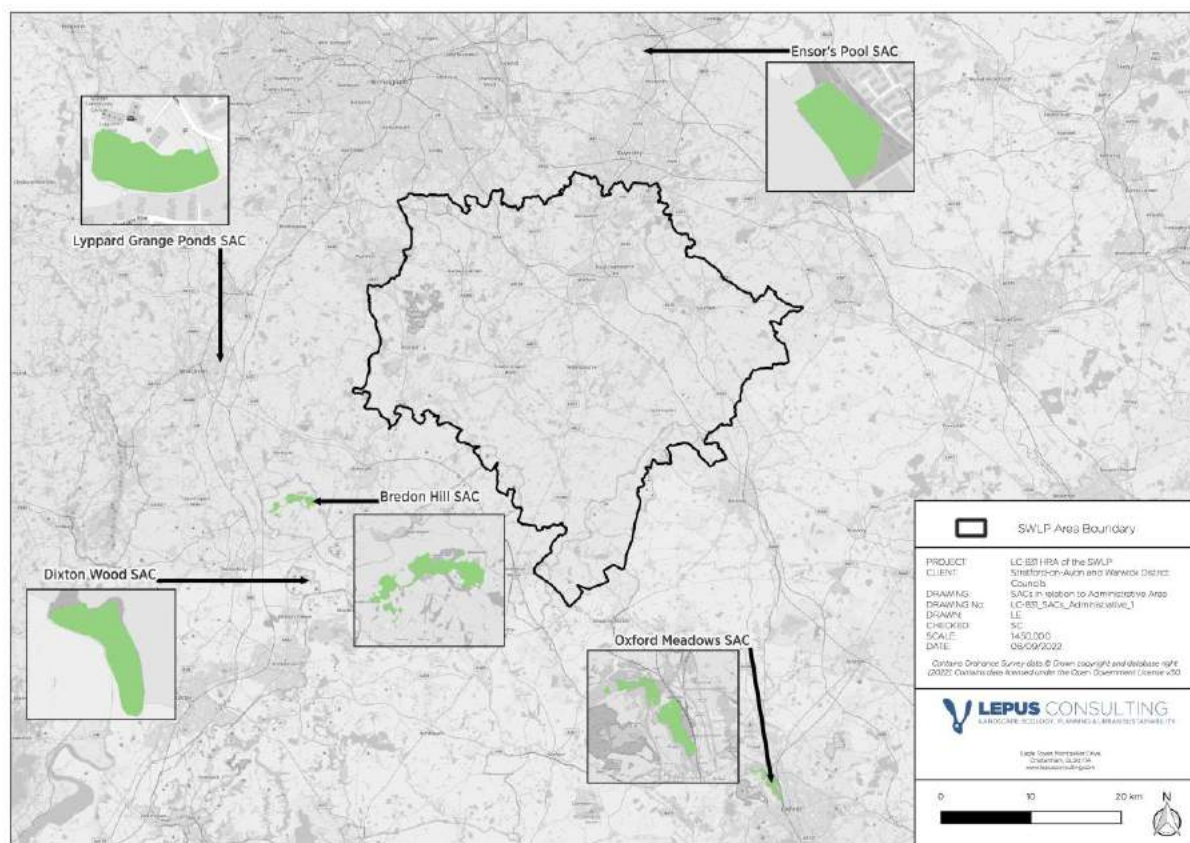


Figure 5.1: Habitats sites located within HRA search area

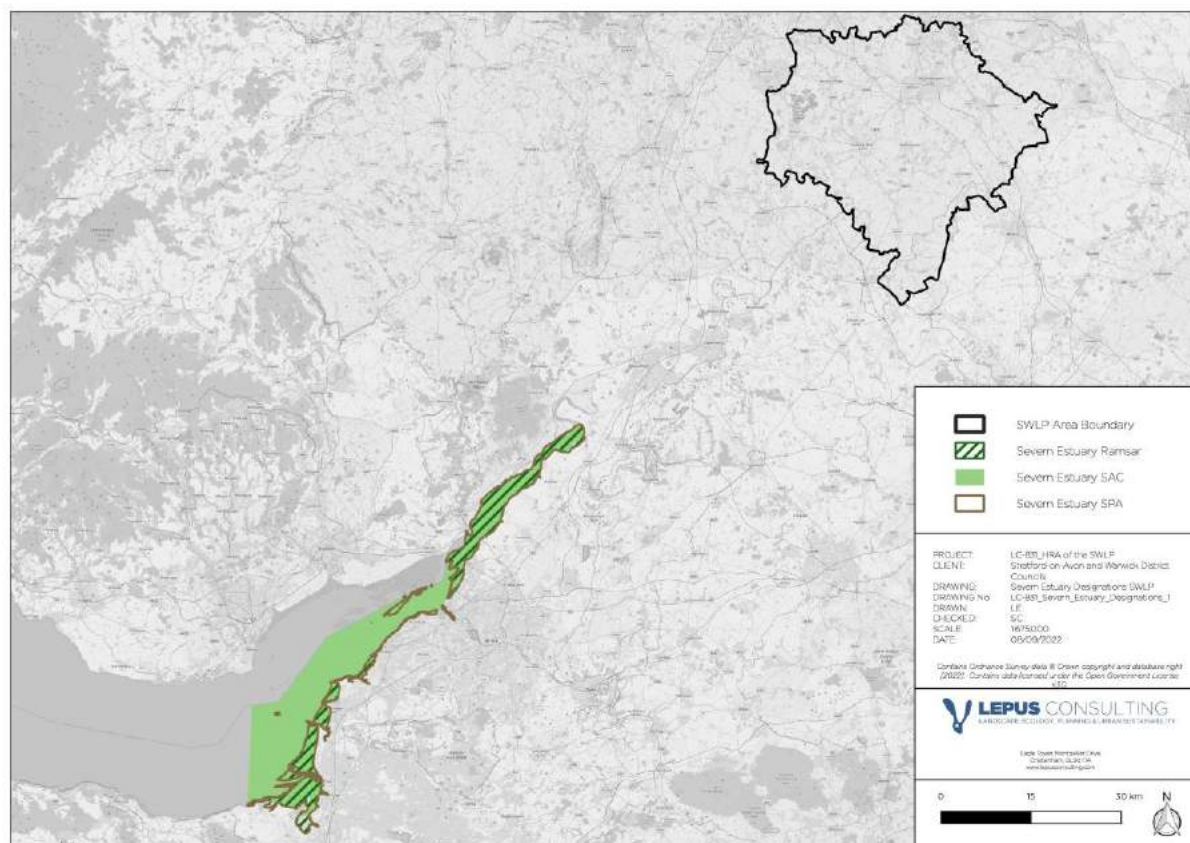


Figure 5.2: Location of the Severn Estuary designations in relation to the SWLP boundary

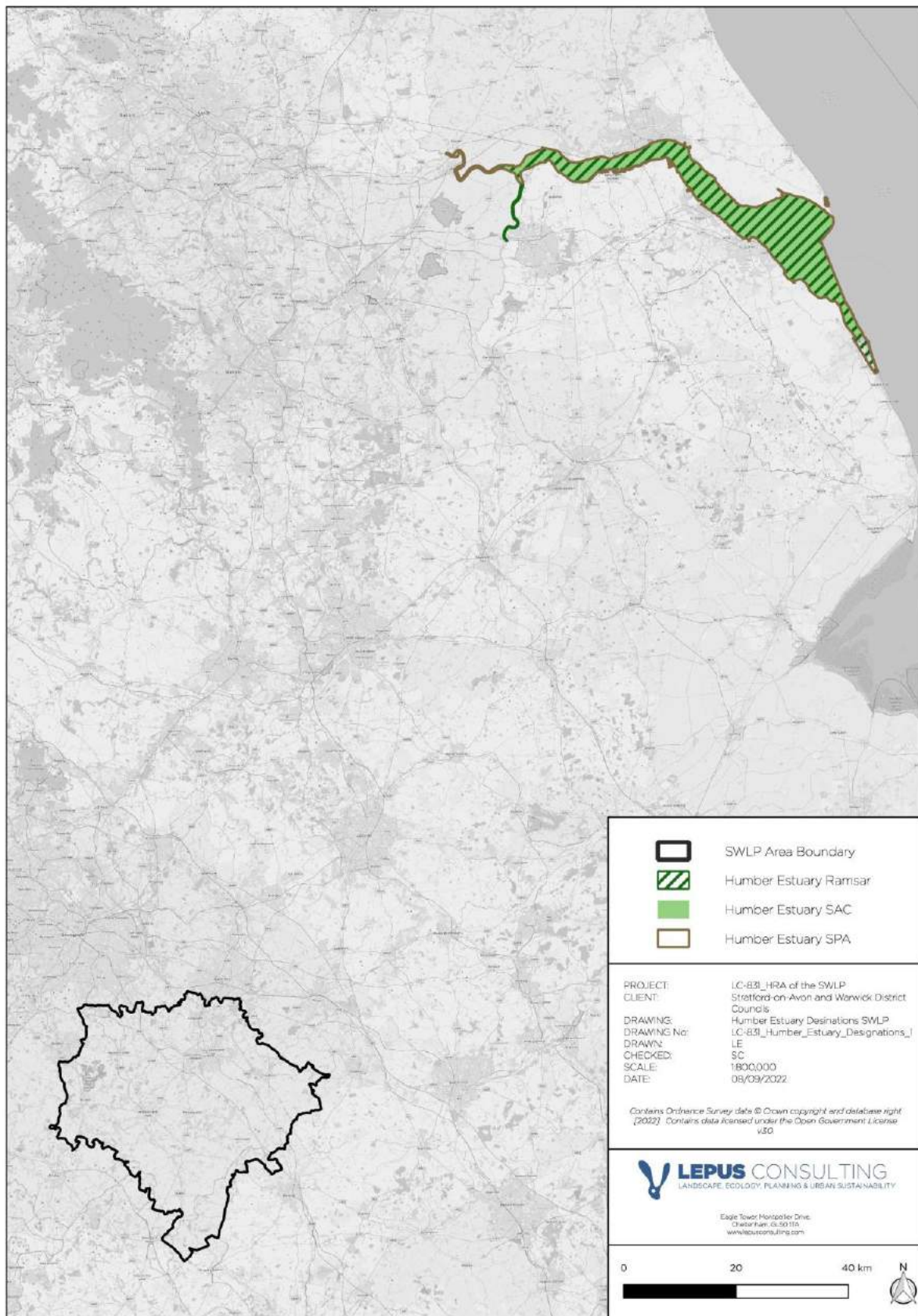


Figure 5.3: Location of the Humber Estuary designations in relation to the SWLP boundary

5.2.3 Each Habitats site has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enables the site to support the ecosystems that it does. An important aspect of this is that the ecological integrity of each site can be vulnerable to change from natural and human induced activities in the surrounding environment (known as pressures and threats (see Section 6)).

5.2.4 An intrinsic quality of any Habitats site is its functionality at the landscape ecology scale. This refers to how the site interacts with the zone of influence of its immediate surroundings, as well as the wider area. Adverse effects may also occur via impacts to mobile species occurring outside a designated site, but which are qualifying features of the site. For example, there may be effects on protected birds that use land outside the designated site for foraging, feeding, roosting or other activities.

5.3 Ecological information

5.3.1 The CJEU ruling in the Holohan case (C-461/17³⁰) confirmed that Appropriate Assessment should: (i) catalogue (i.e. list) all habitats and species for which the site is protected and (ii) include in its assessment other (i.e. non-protected) habitat types or species which are on the site and habitats and species located outside of the site if they are necessary to the conservation of the habitat types and species listed for the protected area (Box 1).

Box 1: Holohan v An Bord Pleanala (November 2018)

"Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned".

5.3.2 This HRA will fully consider the potential for effects on species and habitats. This includes those not listed as a qualifying feature for the Habitats site, but which may be important to achieving its conservation objectives. This ensures that the functional relationships underlying Habitats sites and the achievement of their conservation objectives are adequately understood.

³⁰ EUR-Lex (2018) Case C-461/17. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62017CJ0461&from=EN> [Date Accessed: 09/06/22]

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- 5.3.3 Appendix B identifies the qualifying features of each of these sites and presents details of their conservation objectives. This information is drawn from the Joint Nature Conservancy Council (JNCC)³¹ and Natural England³².
- 5.3.4 The overall objective of the Habitats Regulations is to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of importance. Meeting site conservation objectives will ensure that the integrity of the National Site Network is maintained or restored as appropriate and ensures that each site contributes to achieving the 'favourable conservation status' of its qualifying features.
- 5.3.5 Natural England provides advice on what meeting conservation objectives means in terms of the environmental conditions (targets) and ecological requirements expected for designated habitats and species at sites which form the National Site Network. The targets are set to measure the condition of designated features, and progress towards meeting the objectives, is based on UK Common Standards for Monitoring Guidance (CSMG), published by the Joint Nature Conservation Committee.
- 5.3.6 Sites of Special Scientific Interest (SSSIs) are protected areas in the United Kingdom designated for conservation. SSSIs are the building blocks of site-based nature conservation in the UK. A SSSI will be designated based on the characteristics of its fauna, flora, geology and/or geomorphology. Whilst typically analogous in ecological function, the reasons for its designation can be entirely different to those for which the same area is designated as a SAC, SPA or Ramsar.
- 5.3.7 Natural England periodically assesses the conservation conditions of each SSSI unit against the CSMG standards. The conservation status of each SSSI highlights any SAC/SPA that is currently particularly vulnerable to threats/pressures. Conservation status is defined as follows:
- Favourable;
 - Unfavourable – recovering;
 - Unfavourable – no change; or
 - Unfavourable – declining.
- 5.3.8 SSSI units in either an 'Unfavourable – no change' or 'Unfavourable – declining' condition indicate that the Euro Habitats pean site may be particularly vulnerable to certain threats or pressures. It is important to remember that the SSSI may be in an unfavourable state due to the condition of features unrelated to its Habitats designation. However, it is considered that the conservation status of SSSI units that overlap with Habitats designated sites offer a useful indicator of habitat health at that location.

³¹ JNCC (2019) Available at: <http://jncc.defra.gov.uk/page-1458> [Date Accessed: 09/06/22]

³² Natural England (2019) Available at: <http://publications.naturalengland.org.uk/> [Date Accessed: 09/06/22]

- 5.3.9 Natural England defines zones around each SSSI which may be at risk from specific types of development, these are known as Impact Risk Zones (IRZ). These IRZs are *"a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and "Compensation Sites", which have been secured as compensation for impacts on Natura 2000/Ramsar sites"*³³. The location of IRZs has been taken into consideration in this assessment as they provide a useful guide as to the location of functionally linked land and likely vulnerabilities.

³³ Natural England (2019) Natural England's Impact Risk Zones for Sites of Special Scientific Interest User Guidance. Available at: https://magic.defra.gov.uk/Metadata_for_magic/SSSI%20IRZ%20User%20Guidance%20MAGIC.pdf [Date Accessed: 09/06/22]

6 Impact Pathways

6.1 Gathering information about impact pathways

- 6.1.1 It is important to understand how the SWLP may affect a Habitats site to determine LSEs. Consideration must first be given to potential links or causal connections between the effects of the SWLP and Habitats sites. This section therefore scopes potential impact pathways at the Habitats sites in Table 5.1.

6.2 Threats and pressures

- 6.2.1 Threats and pressures to which Habitats sites are vulnerable have been identified through reference to data held by the JNCC and Natural England on Natura 2000 Data Forms, Ramsar Information Sheets and Site Improvement Plans (SIPs). This information provides current and predicted issues at each Habitats site and is summarised in Appendix B.
- 6.2.2 Supplementary advice notices prepared by Natural England provide more recent information on threats and pressures upon Habitats sites than SIPs and have therefore also been reviewed. A number of threats and pressures are unlikely to be exacerbated by the SWLP. Threats and pressures which could be affected by the SWLP at each Habitats site are provided at Appendix B.
- 6.2.3 Following a review of HRA assessment work undertaken for the current adopted Stratford-on-Avon District Council and Warwick District Council Local Plans and an identification of causal connections and links, the following themes are considered to be within the scope of influence of the SWLP:
- Air pollution: Land use planning has the potential to increase atmospheric emissions of pollutants to the air. These can result in adverse effects at Habitats sites such as eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides)³⁴.
 - Water resources and water levels: Urban development can change run off rates from urbanised areas to Habitats sites or watercourses which run through them. An increase in housing provision can also influence supply and demand for water within the region which may impact water levels.
 - Water quality: Surface water run-off from urban areas has the potential to reduce the quality of water entering a catchment. Water quality may also be reduced through point source effluent discharges from new development at Wastewater Treatment Works (WwTWs) and other controlled discharge sources.
 - Recreational pressure: Increased development has the potential to increase recreational pressure upon Habitats sites which are accessible to the public.
 - Urbanisation: Urban development has the potential to result in disturbing activities (such as noise, lighting and visual disturbance). Disturbance effects

³⁴ APIS (2016) Ecosystem Services and air pollution impacts. Available at: <http://www.apis.ac.uk/ecosystem-services-and-air-pollution-impacts> [Date Accessed: 08/09/22]

may impact upon Habitats sites themselves and also their qualifying features when outside a designated site boundary.

- Functionally linked land: Land use planning has the potential to lead to the direct loss and / or degradation of Habitats sites and also impacts upon qualifying features which may occur outside a designated site boundary.

6.3 Air Pollution

- 6.3.1 Air pollution can affect a Habitats site if it has an adverse effect on its features of qualifying interest. The main mechanisms through which air pollution can have an adverse effect is through eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides). Deposition of air pollutants can alter the soil and plant composition and species which depend upon these.
- 6.3.2 As highlighted through the review of threats and pressures at Habitats sites, (Appendix B) air pollution, and in particular atmospheric nitrogen deposition, has been identified as a threat or pressure for qualifying features of a number of Habitats sites within the relevant Natural England SIPs and Supplementary Conservation Advice Notes.
- 6.3.3 Excess atmospheric nitrogen deposition within an ecosystem or habitat can disrupt the delicate balance of ecological processes interacting with one another. As the availability of nitrogen increases in the local environment, some plants that are characteristic of that ecosystem may become competitively excluded in favour of more nitrophilic plants. It also upsets the ammonium and nitrate balance of the ecosystem, which disrupts the growth, structure and resilience of some plant species.
- 6.3.4 Excess nitrogen deposition often leads to the acidification of soils and a reduction in the soils' buffering capacity (the ability of soil to resist pH changes). It can also render the ecosystem more susceptible to adverse effects of secondary stresses, such as frost or drought, and disturbance events, such as foraging by herbivores.
- 6.3.5 As an attempt to manage the negative consequences of atmospheric nitrogen deposition, 'critical loads' and 'critical levels' have been established for ecosystems in Europe. Each Habitats site is host to a variety of habitats and species, the features of which are often designated a critical load for nitrogen deposition.
- 6.3.6 The critical loads of pollutants are defined as a "...quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge"³⁵. Critical levels are defined as "concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge"³⁶.

³⁵ UNECE (date unavailable) ICP Modeling and Mapping Critical loads and levels approach. Available at: https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 08/09/22]

³⁶ UNECE (date unavailable) ICP Modeling and Mapping Critical loads and levels approach. Available at: https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 08/09/22]

- 6.3.7 Natural England has prepared a standard methodology for the assessment of traffic related air quality impacts under the Habitats Regulations which is relevant to the HRA of plans which may result in a change in traffic flows³⁷. In addition, the Institute of Air Quality Management (IAQM)³⁸ and the Chartered Institute of Ecology and Environmental Management (CIEEM)³⁹ have also prepared advice on the assessment of air quality impacts at designated sites. This guidance sets thresholds for screening of likely significant (air quality) effects at the HRA screening stage (Stage 1 of the HRA process) and methodologies for further Appropriate Assessment (Stage 2 of the HRA process) of air quality impacts where relevant.
- 6.3.8 The advice from Natural England notes that for screening LSEs, an assessment of the risks from road traffic emissions can be expressed in terms of the average annual daily traffic flow (AADT) as a proxy for emissions. The use of the AADT screening threshold is advocated by Highways England in their Design Manual for Roads and Bridges (DMRB). This screening threshold is intended to be used as a guide to determine whether a more detailed assessment of the impact of emissions from road traffic is required. This non-statutory, or guideline threshold, is based on a predicted change of daily traffic flows of 1,000 AADT or more (or a change in heavy-duty vehicle (HDV) flows on motorways of 200 AADT or more).
- 6.3.9 The guidance also notes it is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance^{40,41,42}.
- 6.3.10 At this preliminary stage in the plan-making process, Natural England's guidance (in the form of a series of questions) has been applied to determine potential air quality pathways of impact to Habitats sites:
- Does the Local Plan give rise to emission which are likely to reach a Habitats site?
 - Are the qualifying features of sites within 200m of a road sensitive to air pollution?
 - Could the sensitive qualifying features of the site be exposed to emissions?

³⁷ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001). Available at: <http://publications.naturalengland.org.uk/publication/4720542048845824> [Date Accessed: 08/09/22]

³⁸ Holman et al (2020). A guide to the assessment of air quality impacts on designated nature conservation sites – version 1.1, Institute of Air Quality Management, London.

³⁹ CIEEM (2021) Advice on Ecological Assessment of Air Quality Impacts. Chartered Institute of Ecology and Environmental Management. Winchester, UK.

⁴⁰ The Highways Agency, Transport Scotland, Welsh Assembly Government, The Department for Regional Development Northern Ireland (2007) Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1: Air Quality.

⁴¹ Natural England (2016) The ecological effects of air pollution from road transport: an updated review. Natural England Commissioned Report NECR 199.

⁴² Bignal, K., Ashmore, M. & Power, S. (2004) The ecological effects of diffuse air pollution from road transport. English Nature Research Report No. 580, Peterborough.

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- 6.3.11 The SWLP will trigger development in the form of housing, employment and retail development. The exact scale, location and nature of this development is however not known at this stage in the plan making process.
- 6.3.12 Baseline mapping data has been used to determine the proximity of Habitats sites, and their qualifying features, to roads which may result in an exceedance of Natural England's screening thresholds (A and B roads) within an approximate 20km buffer from the SWLP administrative area⁴³. The UK Air Pollution Information System (APIS) provides information on all Habitats sites and the sensitivity of their qualifying features (habitats and / or species) to air pollution. This data has been interrogated, alongside a desk-based review of site-based data (Appendix B), to determine whether there may be pathways of impact from the SWLP to any Habitats site through a change in atmospheric emissions (Table 6.1).

⁴³ 20km covers a sufficiently precautionary area over which traffic flows may increase due to development in the SWLP administrative area.

Table 6.1: Atmospheric pollution pathways of impact to Habitats sites within 20km of the SWLP administrative area

Habitats site name	Is the Habitats site sensitive to air quality impacts (as indicated in SIP / NE Supplementary Conservation Advice – Appendix B)?	Is there a strategic road link (A and B roads) located within 200m of the Habitats site?	Will the Habitats site be scoped in for further assessment in the HRA process
Bredon Hill SAC	Yes	No	No
Ensor's Pools SAC	No	No	No
Lyppard Grange Ponds SAC	Yes	No	No
Dixton Woods SAC	Yes	No	No

6.3.13 As can be seen from the above desk-based review, there are no strategic road links within 200m of any Habitats site which is sensitive to air pollution. As such air quality likely significant effects can be screened out of the HRA process.

6.4 Hydrology (water resources (quantity) and water quality)

6.4.1 The Water Framework Directive (WFD) provides an indication of the health of the water environment and whether a water body is at good status or potential. This is determined through an assessment of a range of elements relating to the biology and chemical quality of surface waters and quantitative and chemical quality of groundwater. To achieve good ecological status or potential, good chemical status or good groundwater status every single element assessed must be at good status or better. If one element is below its threshold for good status, then the whole water body's status is classed below good. Surface water bodies can be classed as high, good, moderate, poor or bad status.

6.4.2 The WFD sets out areas which require special protection. These include areas designated for "the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection including relevant Natura 2000 sites designated under Directive 92/43/EEC (the Habitats Directive) and Directive 79/409/EEC (the Birds Directive)"⁴⁴.

6.4.3 The SWLP administrative area falls predominantly within the Severn River Basin District area, with a small area also falling within Humber and Thames River Basin District areas. These River Basin Districts are sub-divided into several management catchments⁴⁵. The SWLP is located predominantly within Avon and Warwickshire management catchment, with small areas within the following catchments:

⁴⁴ Official Journal of the European Communities (2000) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. Available at: https://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF [Date Accessed: 27/06/22]

⁴⁵ <https://environment.data.gov.uk/catchment-planning/>

- River Humber District: Tame Anker and Mease⁴⁶.
- River Thames District: Cherwell and Ray.
- River Thames District: Cotswolds.

6.4.4 River Basin Management Plans (RBMP) provide a framework for protecting and enhancing the benefits provided by the water environment. To achieve this, and because water and land resources are closely linked, they also inform decisions on land-use planning. Appendix A provides a summary of the Severn, Humber and Thames RBMPs and HRAs which were prepared to support these plans.

6.4.5 The main water service provider for Warwickshire is Severn Trent Water. Severn Trent Water provides water to over 8 million people. It is a statutory requirement that every five years water companies produce and publish a Water Resources Management Plan (WRMP). The WRMP demonstrates long term plans to accommodate the impacts of population growth, drought, environmental obligations and climate change uncertainty in order to balance supply and demand.

6.4.6 The Severn Trent WRMP⁴⁷ estimates future water demands and plans how these levels will be achieved. The WRMP forecasts a significant deficit that is likely to develop between supply and demand for water over time unless action is taken. The WRMP outlines a number of demand management measures that need to be taken to ensure continued sustainable sources of supply including:

- Reducing abstraction from those water sources that have a detrimental impact on the environment
- Making sure our future water abstractions do not pose a risk environmental deterioration, as required by the Water Framework Directive
- Increasing the flexibility and resilience of our supply system
- Increasing or optimising deployable output from existing, sustainable sources where possible
- Using catchment restoration techniques to improve habitats and ecological resilience to low flows
- Using catchment management measures to protect our sources of drinking water supply from pollution risks

6.4.7 Catchment Abstraction Management Plans (CAMS) are six-year strategies developed by the EA for managing water resources at the local level, produced for every river catchment area in England and Wales. All new licences within a CAMS area have a common end date so they can be reviewed simultaneously.

⁴⁶ Note: the SWLP area is not located within the River Mease SAC nutrient neutrality catchment. WOOD, A., WAKE, H. and MCKENDRICK-SMITH, K. 2022. River Mease Special Area of Conservation – Evidence Pack. Natural England Technical Information Note. TIN200 Natural England. Available at: <http://publications.naturalengland.org.uk/publication/5254733043597312> [Date Accessed: 09/09/22]

⁴⁷ Severn Trent Water (2019) Waste Resources Management Plan 2019. Available at: <https://www.stwater.co.uk/content/dam/stw-plc/our-plans/severn-trent-water-resource-management-plan.pdf> [Date Accessed: 08/09/22]

- 6.4.8 The SWLP area is affected by the Warwickshire Avon⁴⁸, Tame, Anker and Mease⁴⁹, Cherwell Thyme and Wye⁵⁰ and Cotswolds⁵¹ abstraction licensing strategies. The strategies set out how water resources are used in the area, indicating areas where water is available for further abstraction. Surface water flow is assessed at 14 Assessment Points (APs) in the Warwickshire Avon catchment, nine APs in the Tame, Anker and Mease catchment, ten APs in the Cherwell, Thame and Wye catchment and 12 APs in the Cotswolds catchment. All of the Cotswolds catchment APs indicate there is restricted water available for licensing, whereas the majority of APs in the Warwickshire Avon, Tame, Anker and Mease and Cherwell, Thame and Wye catchments indicate that water is available for licensing.
- 6.4.9 Urban development set out the SWLP, has the potential to reduce catchment permeability and the presence of drainage networks may be expected to remove runoff from urbanised catchments. This may result in changes in run off rates from urbanised areas to Habitats sites or watercourses which run through them. Water mains leakage and sewer infiltration may also affect the water balance. In addition, new growth will increase water demand, changing the supply and demand for water resources in the region which may affect water levels. Features for which Habitats sites are designated are often sensitive to changes in water balance and levels. Therefore, any change to water flows through and water levels at a water sensitive Habitats sites has the potential to adversely affect the features for which they are designated.
- 6.4.10 Urbanisation run-off has the potential to reduce the quality of water entering a catchment. Water quality may also be reduced through effluent discharges from Wastewater Treatment Works (WwTWs) and other controlled point source discharges. Any change to water quality at a water sensitive Habitats site has the potential to adversely affect the features for which they are designated.
- 6.4.11 Baseline data for Habitats sites (Appendix A) and information in relation to hydrological connectivity has been reviewed to determine whether there may be pathways of impact from the SWLP to any Habitats site through a change in water quality or water levels (Table 6.2).

⁴⁸ Environment Agency (2013) Warwickshire Avon Abstraction Licensing Strategy. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291400/LIT_2604_7a_244e.pdf [Date Accessed: 21/04/22]

⁴⁹ Environment Agency (2013) Tame, Anker and Mease Abstraction Licensing Strategy. Available at: <https://www.gov.uk/government/publications/cams-tame-anker-and-mease-abstraction-licensing-strategy> [Date Accessed: 21/04/22]

⁵⁰ Environment Agency (2019) Cherwell, Thame and Wye Abstraction Licensing Strategy. Available at: <https://www.gov.uk/government/publications/cherwell-thame-and-wye-catchment-abstraction-licensing-strategy> [Date Accessed: 21/04/22]

⁵¹ Environment Agency (2019) Cotswolds Abstraction Licensing Strategy. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/796112/Cotswolds-Abstraction-Licensing-Strategy.pdf [Date Accessed: 21/04/22]

Table 6.2: Water resource, levels and quality pathways of impact to Habitats sites

Habitats site name	Is the Habitats site sensitive to a change in water quality and /or water level impacts and is it hydrologically connected to the plan area?	Will the Habitats site be scoped in for further assessment in the HRA process
Bredon Hill SAC	<p>Bredon Hill SAC is an outlier of the Cotswold Hills and is located to the south of Pershore in the district of Wychavon. Its qualifying feature is the violet click beetle (<i>Limoniscus violaceus</i>). The SAC comprises habitats that are dominated by mixed broad-leaved woodland and calcareous rich grasslands.</p> <p>Natural England's supplementary advice indicates Bredon Hill SAC requires an appropriate hydrological regime to be maintained on site in order to sustain the deadwood habitat, including moist decaying timber, upon which the violet click beetle relies.</p> <p>Taking into account the distance of the SAC from the plan area and the topography of the site, there are unlikely to be surface water receptors that connect development proposed in the SWLP with the SAC.</p>	No
Ensor's Pools SAC	<p>Ensor's Pools SAC lies on the western edge of Nuneaton in the north of Warwickshire and formed in an abandoned clay pit and is ground water fed. Its qualifying feature is native white-clawed crayfish (<i>Austropotamobius pallipes</i>).</p> <p>Taking into account the distance of the SAC from the plan area and the fact that it is ground water fed, there are unlikely to be surface water receptors that connect development proposed in the SWLP with the SAC.</p>	No
Lyppard Grange Ponds SAC	<p>Lyppard Grange Ponds SAC is fed by rainwater and run off and is not hydrologically connected to the River Severn Catchment. As such there are unlikely to be surface water receptors that connect development proposed in the SWLP with the SAC.</p>	No
Dixton Woods SAC	<p>Dixton Wood SAC comprises a steep east facing woodland surrounded by permanent grassland, situated in the foothills of the Cotswold Scarp. Its qualifying feature is the violet click beetle (<i>Limoniscus violaceus</i>).</p> <p>Natural England's supplementary advice indicates that Dixton Wood SAC requires an appropriate hydrological regime to be maintained on site in order to sustain the deadwood habitat, including moist decaying timber, upon which the violet click beetle relies.</p> <p>Taking into account the distance of the SAC from the plan area and the topography of the site, there are unlikely to be surface water receptors that connect development proposed in the SWLP with the SAC.</p>	No
Oxford Meadows SAC	<p>Oxford Meadows SAC is situated on the broad floodplain of the River Thames to the west and north-west of Oxford. It comprises an extensive complex of meadows and pastures which support species-rich grassland vegetation.</p> <p>The far southern section of the SWLP area lies within the Thames Cotswold Management Catchment. This area drains into the River Evenlode, which joins the River Thames upstream of Oxford Meadows SAC. As such the plan area is hydrologically connected to this SAC and it will therefore be considered further in the HRA.</p>	Yes
Severn Estuary SAC Severn Estuary SPA Severn Estuary Ramsar	<p>The SWLP plan area is predominantly located within the River Severn District Basin and the Avon Warwickshire management catchment. The Severn Estuary SAC, Severn Estuary SPA and Severn Estuary Ramsar are located downstream of the plan area and connected via the River Avon (and its tributaries) which meets the River Severn at Tewkesbury. These designated sites are therefore hydrologically connected to the plan area.</p>	Yes

Habitats site name	Is the Habitats site sensitive to a change in water quality and /or water level impacts and is it hydrologically connected to the plan area?	Will the Habitats site be scoped in for further assessment in the HRA process
Humber Estuary SAC Humber Estuary SPA Humber Estuary Ramsar	A small area of the SWLP plan area is located within the Humber River District Basin and the Tame Anker Mease management catchment. The Humber Estuary SAC, Humber Estuary SPA and Humber Estuary Ramsar are located downstream of the plan area and connected via the River Tame (and its tributaries e.g. the River Blythe) which meets the River Trent near Airewas, and ultimately feeds into the Humber Estuary. These designated sites are therefore hydrologically connected to the plan area.	Yes

6.4.12 The next stages of the HRA process in terms of assessing hydrology impacts are summarised in Table 6.3. It also sets out preliminary recommendations to be considered in the development of the SWLP in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 6.3: Hydrology impacts: Recommendations and further work

Item	Recommendations and Further Work
1	At Regulation 18 water quality and water quantity impacts will be screened drawing on other elements of the evidence base such as a Water Cycle Study and consultation with Severn Trent Water.
2	It is recommended that the Councils ensure methods of protecting water quality and quantity be promoted in the SWLP through site selection and development of robust policy wording. This may be through incorporation of Sustainable Urban Draining System (SuDS) to protect water quality and the promotion of water efficiency methods.

6.5 Recreational pressure

- 6.5.1 Increased recreational pressure at Habitats sites can result in damage to habitats through erosion and compaction, troubling of grazing stock, causing changes in behaviour to animals such as birds at nesting and feeding sites, spreading invasive species, dog fouling, tree climbing etc. Typically, disturbance of habitat and species is the unintentional consequence of people's presence which can impact distribution of habitat types and breeding success and survival.
- 6.5.2 Increased development has the potential to increase recreational and navigational pressures upon Habitats sites which are accessible to the public.
- 6.5.3 A common approach taken across the UK to address recreational impacts at Habitats sites is to establish a Zone of Influence (ZoI) based on detailed visitor survey data. The ZoI is the area within which there are likely to be significant effects arising from recreational activities undertaken by additional residents due to growth. This is often calculated by taking the distance at which 75% of interviewees surveyed have travelled to reach a particular site (based on a review of visitor survey data).

- 6.5.4 For example, an existing strategy towards recreational mitigation is in place for the Severn Estuary SAC, Severn Estuary SPA and Severn Estuary Ramsar designations. Stroud District Council prepared this strategy in consultation with Natural England, Wildfowl and Wetlands Trust Severn Estuary Partnership, ASERA and Severn Estuary Stakeholders⁵². It was developed on the basis of visitor survey data collated by EPR in 2015/16⁵³ and sets out a strategy to mitigate disturbance impacts associated with growth. The EPR visitor survey work established a catchment area of 7.7km from the Severn Estuary within which developments involving a net increase in housing may be required to contribute to the funding of impact avoidance and mitigation measures. At their closest point, the Severn Estuary Habitats designations are located over 54.6km from the SWLP plan boundary. It is understood that the mitigation strategy is currently being re-assessed as part of Stroud's Local Plan review. However, given the distance of the designations from the plan area, it is considered that there will be no LSEs from the SWLP at the Severn Estuary designations themselves from recreation impacts.
- 6.5.5 The broad principle of buffer zones is one component of the HRA screening process for recreational pressures. This process also takes into consideration other factors such as recreational management at sites, proximity to settlements and existing recreational resources. In circumstances where buffer zones have not been established, best practice examples, such as those set out for the Severn Estuary, can be drawn upon to inform screening assessments. It is however recognised that Habitats sites are designated for different site-specific qualifying features which may not reflect those for which other sites are designated.
- 6.5.6 Where available, buffer distances have been applied to determine potential pathways of recreational and urbanisation effects from the SWLP. This review is summarised in Table 6.4 below.

⁵² Stroud District Council. 2017. Strategy for Avoidance of Likely Significant Adverse Effects on the Severn Estuary SAC, SPA and Ramsar Site. Available at: <https://www.stroud.gov.uk/media/557874/item-8-appendix-a.pdf>

⁵³ EPR. 2016. Severn Estuary (Stroud District) Visitor Survey Report. Available at: <http://www.epr.uk.com/assets/severnestuaryreport.pdf>

Table 6.4: Review of recreational disturbance pathways of impact to Habitats sites

Habitats site name	Sensitive to public access and disturbance effects	Public access and disturbance impact pathways	Habitats site screened in for further consideration in HRA in terms recreational pressures
Bredon Hill SAC	No	Public access and disturbance are not identified as a threat/pressure at Bredon Hill SAC within the SIP or Natural England's supplementary advice. Bredon Hill is not open access, however a number of public rights of way (PRoW) criss-cross the SAC. These include the long distance Wychavon Way which passes along the southern section of Bredon Hill SAC. Due to its elevated position Bredon Hill contains a number of key viewpoints including the Banbury Stone Tower, with views in all directions including the Malvern Hills, Vale of Evesham and the Severn Valley. Bredon Hill has been featured in the works of a number of composers, poets, writers and artists and therefore draws people for its literary and musical connections and as such has a recreational draw. Given the location of this SAC within 20km of the plan area, it is considered that public access may have implications for the qualifying features of the SAC, the violet click beetle. The veteran trees at Bredon Hill SAC provide ideal conditions which support the violet click beetle. Public access has the potential to disturb and damage these veteran trees and therefore compromise the habitat upon which the violet click beetle relies.	Yes
Ensor's Pools SAC	No	Ensor's Pools SAC lies on the western edge of Nuneaton in the north of Warwickshire and is formed in an abandoned clay pit. It is located within an urban setting. Recreational impacts are not identified as a threat/pressure at the SAC within the SIP or Natural England's supplementary advice. Urbanisation effects are considered further in Section 6.6. Given the location of this SAC 14.5km from the SWLP area and taking into consideration its size and nature, it is considered unlikely that the SWLP will result in recreational pressures.	No
Lyppard Grange Ponds SAC	No	Lyppard Grange Ponds SAC includes two field ponds located in the grounds of the former Lyppard Grange Farm, situated to the east of Worcester city. It is located within an urban setting. Recreational impacts are not identified as a threat/pressure at Lyppard Grange Ponds SAC within the SIP or Natural England's supplementary advice. Urbanisation effects are considered further in Section 6.6. Given the location of this SAC 14.9km from the SWLP area and taking into consideration its size and nature, it is considered unlikely that the SWLP will result in recreational pressures.	No

Dixton Woods SAC	No	Dixton Wood SAC comprises a steep east facing woodland surrounded by permanent grassland, situated in the foothills of the Cotswold Scarp. Public access and disturbance are not identified as a threat/pressure at Dixton Woods SAC within the SIP or Natural England's supplementary advice. Given the remote nature of this site, steep topography and limited access, recreational effects are considered unlikely.	No
Oxford Meadows SAC	Yes	Oxford Meadows SAC comprises extensive a complex of meadows and pastures which support species-rich grassland vegetation. Natural England's supplementary conversation advice indicates that the SACs proximity to Oxford has resulted in it being a very popular local amenity for local people. Port Meadow and Wolvercote Common are registered common land and have open public access. The SAC is located 26.1km to the south east of the SWLP area. Given this distance, it is considered unlikely that additional housing growth in the SWLP area will have a recreational impact upon the SAC.	No
Severn Estuary SAC, Severn Estuary SPA and Severn Estuary Ramsar	Yes	A number of the qualifying features of the Severn Estuary SAC, Severn Estuary SPA and Severn Estuary Ramsar are known to be vulnerable to disturbance from human activities, including the intertidal mudflats and sandflats, and the species they support. At their closest point, these designations are located approximately 54.6km from the SWLP boundary which is significantly further than the EPR visitor survey work which established a catchment area of 7.7 km. A such it is unlikely that there will be direct impacts upon these designations themselves.	No
Humber Estuary SAC, Humber Estuary SPA and Humber Estuary Ramsar	Yes	A number of the qualifying features of the Humber Estuary SAC, Humber Estuary SPA and Humber Estuary Ramsar are known to be vulnerable to disturbance from human activities, including the intertidal mudflats and sandflats, and the species they support. At their closest point, these designations are located approximately 143.6km from the SWLP. A such it is unlikely that there will be direct impacts upon these designations themselves.	No

6.5.7 The next stages of the HRA process in terms of assessing recreational impacts are summarised in Table 6.5. It also sets out preliminary recommendations to be considered in the development of the SWLP in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 6.5: Recreational pressure: Recommendations and further work

Item	Recommendations and Further Work
1	At Regulation 18 potential recreational impacts will be considered in context of the location of allocations and existing and proposed formal and informal recreational space.
2	It is recommended that the Councils ensure formal and informal recreation provision is sufficient to accommodate level of growth set out in the SWLP.

6.6 Urbanisation effects

6.6.1 Urbanisation effects typically occur when development is located close to a Habitats site boundary. These may include impacts such as noise disturbance, lighting effects, cat predation, fly-tipping, wildfire, littering and vandalism. Strategic mitigation schemes elsewhere in the UK have set a presumption against development (i.e. no net increase in residential dwellings) on the basis of site-specific evidence to safeguard against these impacts of approximately 400m. There are no Habitats sites located within 400m of the SWLP administrative area, with the closest located 11.1km to its south west (see Table 5.1). There are unlikely to be any urbanisation effects as a result of the SWLP.

6.7 Functionally linked land

- 6.7.1 Whilst functionally linked land is not a pathway of impact in its own right, it has the potential to be impacted upon by the SWLP through a number of pathways and is therefore included in this section.
- 6.7.2 Land use planning has the potential to lead to direct loss and / or degradation at Habitats sites through the mechanisms described above, reduction in air quality, hydrology impacts and public access and disturbance (increased recreation and urbanisation impacts). It also has the potential to result in impacts upon qualifying features (for instance mobile species of bird) when located outside a designation boundary, known as functionally linked habitat⁵⁴.
- 6.7.3 There are no Habitats sites within the plan area and therefore there will be no direct loss or degradation of habitat within a designated site boundary.

⁵⁴ "The term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a Habitats site might fulfil in terms of ecologically supporting the populations for which the site was designated or classified. Such land is therefore 'linked' to the Habitats site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status". Source: Natural England. 2016. Commissioned Report. NECR207. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions.

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- 6.7.4 The term 'functional linkage' is defined by Natural England as "the role or 'function' that land or sea beyond the boundary of a Habitats site might fulfil in terms of ecologically supporting the populations for which the site was designated or classified. Such land is therefore 'linked' to the Habitats site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status"⁵⁵.
- 6.7.5 In addition to direct loss or degradation of habitat (designated or functionally linked), development has the potential to result in the fragmentation of habitats through the loss of connecting corridors which would hinder the movement of mobile qualifying species which are associated with some designations.
- 6.7.6 The tests set out under Article 6(3) and 6(4) of the Habitats Regulations need to be applied in respect of plans or projects which may significantly affect functionally linked habitat that plays an important role in contributing to the favourable conservation status of the relevant species for which a Habitats site is designated.
- 6.7.7 The CJEU ruling in the Holohan case (Box 1) confirmed that habitat and / or species which are located outside of a designated site, if they are necessary to the conservation of the habitat types and species listed for the protected area, must be considered in an Appropriate Assessment.
- 6.7.8 A detailed desk study has been undertaken as part of the HRA screening process to identify pathways and connections to areas of functionally linked land and watercourses which may be affected by the SWLP. This has drawn on Natural England designated site and SSSI IRZ data, International Union for Conservation of Nature (IUCN) data, magic, priority habitat inventory data and aerial photography.
- 6.7.9 As noted in Section 6.4, the plan area predominantly falls within hydrological catchments associated with the Severn Estuary and to a lesser extent and the Humber Estuary. The Severn Estuary SAC and Severn Estuary Ramsar sites are hydrologically linked to the plan area through the Warwickshire River Avon. The River Avon (and its tributaries) run through the plan area and connect with the River Severn at Tewkesbury. The Humber Estuary designated sites (the Humber Estuary SPA, SAC and Ramsar) are linked to the plan area via the Blythe Rivers operational catchment. A very small area is also located within the Tame Lower Rivers and Lakes operational catchment.
- 6.7.10 The qualifying features of the Severn Estuary SAC include, among other features, a number of species of migratory fish including Twaite shad (*Alosa fallax*), River lamprey (*Lampetra fluviatilis*) and Sea lamprey (*Petromyzon marinus*). Criterion 4 of the Severn Estuary Ramsar designation notes that the site is important for the run of migratory fish between sea and river via estuary, including the SAC species (listed earlier) and additionally species of salmon (*Salmo salar*), Sea trout (*S. trutta*) and Allis shad (*Alosa alosa*).

⁵⁵ Natural England. 2016. Commissioned Report. NECR207. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions.

- 6.7.11 Consultation with the Environment Agency (EA) indicates that recent surveys have identified fish spawning sites along the whole length of the River Severn (where access is possible) and within the River Teme. With fish recorded from Maisemore Weir in Gloucester all the way up to Lincombe Wier near Stourport and in the River Teme from its mouth with the Severn to upstream of Knightwick and as far as Tenbury⁵⁶. Historically fish spawning sites had been associated with gravel locations, but EA recent research suggests that spawning is not confined to these areas.
- 6.7.12 The 'Unlocking the Severn' project⁵⁷, which is run in partnership between the Canal and Rivers Trust, the Severn Rivers Trust, the Environment Agency (EA) and Natural England, aims to create fish passes at six barriers on the Severn and its River Teme tributary to allow Twaite Shad to migrate upstream. With the opening of the Diglis fish pass in March 2021 fish are now able to move upstream through Worcester to Stourport on Severn. A consultation response from Natural England indicates that currently, the tidal weir at Tewkesbury is believed to present an obstacle to most of the migratory fish species apart from the European eel, which has been recorded in the Warwickshire Avon⁵⁸. Natural England note that in the last few decades eel numbers have declined internationally by as much as 95% and have been listed by the International Union for Conservation of Nature (IUCN) on their Red List as critically endangered species⁵⁹. Barriers to their journey upstream and degradation of habitat and pollution are some of the contributing factors for the decline. The River Severn RBMP sets out several catchment partnership measures for the Warwickshire Avon catchment, which include creation of fish passes to reduce barriers to fish movement further up the River Severn catchment⁶⁰.
- 6.7.13 Natural England note in their correspondence that migratory fish species associated with the Humber Estuary SAC and the Humber Estuary Ramsar are Sea Lamprey and River Lamprey. The River Lamprey has been recorded as far upstream as the River Dove (on the Staffordshire/Derbyshire border)⁶¹.

⁵⁶ Unlocking the Severn. <https://www.unlockingthesevern.co.uk/endangered-fish-return-to-habitat-unlocked-after-180-years/> [Date Accessed: 09/09/22]

⁵⁷ Rivers and Canals Trust. Unlocking the Seven Project Available at: https://canalrivertrust.org.uk/enjoy-the-waterways/canal-and-river-network/river-severn-navigation/unlocking-the-severn?gclid=EAlaIqobChMIsevp7MLd8QIVysLtCh3-VwefEAAYASAAEgLC4vD_BwE [Date Accessed: 09/09/21].

⁵⁸ Natural England. 2022. Letter to Lepus Consulting 4th August 2022. Consultation: South Warwickshire Local Plan (SWLP) – Sustainability Appraisal (SA) / Strategic Environmental Assessment (SEA) Scoping Report.

⁵⁹ IUCN Red List of Threatened Species. Available at: <https://www.iucnredlist.org/species/60344/152845178> [Date Accessed: 09/09/22]

⁶⁰ Environment Agency (2015) Severn River Basin Management Plan. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718336/Severn_RBD_Part_1_river_basin_management_plan.pdf [Date Accessed: 06/09/22]

⁶¹ Natural England. 2022. Letter to Lepus Consulting 4th August 2022. Consultation: South Warwickshire Local Plan (SWLP) – Sustainability Appraisal (SA) / Strategic Environmental Assessment (SEA) Scoping Report.

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- 6.7.14 Any potential deterioration in water quality or habitat outside the Severn Estuary and Humber Estuary SAC and Ramsar designations as a result of the SWLP may have implications for the migration of fish to upstream spawning habitat if it results in a barrier to movement. The impact of the SWLP upon functionally linked watercourses and habitat through a deterioration in water quality, flows and loss and / or deterioration of riparian and in-stream habitat may therefore have adverse effects on the achievement of the conservation objectives which aim to maintain and restore the condition of these features for relevant qualifying species. Natural England consider that Good Ecological Status under the WFD is an appropriate standard for functionally linked watercourse⁶².

⁶² Defra. 2014. Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment (publishing.service.gov.uk). Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/307788/river-basin-planning-standards.pdf [Date Accessed: 09/09/22]

- 6.7.15 The next stages of the HRA process in terms of assessing impacts upon functionally linked land are summarised in Table 6.6. It also sets out preliminary recommendations to be considered in the development of the SWLP in terms of site allocation selection and development of policy wording. These recommendations will be updated and added to as the HRA progresses iteratively alongside the plan-making process.

Table 6.6: Functionally Linked Land: Recommendations and further work

Item	Recommendations and Further Work
1	At Regulation 18 water quality and water quantity impacts will be screened drawing on other elements of the evidence base such as a Water Cycle Study and consultation with Severn Trent Water.
2	It is recommended that the Councils ensure methods of protecting water quality and quantity be promoted in the SWLP through site selection and development of policy wording. These should be linked to the protection of functionally linked watercourses. This may be through incorporation of Sustainable Urban Draining System (SuDS) to protect water quality and the promotion of water efficiency methods.
3	Ensure biodiversity policies recognise the requirement to comply with the Habitats Regulations in respect of functionally linked land.

6.8 Issues and Options Preliminary Screening

- 6.8.1 Following the identification of Habitats sites for inclusion in the HRA and potential pathways of impact from the SWLP, the next stage in the HRA process will be Screening (Section 3.2).
- 6.8.2 The SWLP is not directly connected with or necessary to the management of any Habitats site. Neither can it be excluded or eliminated from the HRA process. Therefore, it is necessary to identify whether there are any aspects of the plan which may lead to likely significant effects (LSEs) at a Habitats site, either alone or in combination with other plans or projects – Screening.
- 6.8.3 LSEs are discussed in Section 3.3 and comprise an effect which may undermine the conservation objectives for the qualifying features of a Habitats site, either alone or in combination. Identification of LSEs will trigger the requirement for an Appropriate Assessment – Stage 2 of the HRA process. Appropriate Assessment allows effects to be assessed in more detail and mitigation measures applied.
- 6.8.4 Screening for LSEs is normally undertaken at the preferred options stage when policies and allocations are known, and again at Regulation 19 to ensure any changes are captured. Screening at Preferred Options will comprise a detailed analysis of all components of the SWLP against Screening criteria set out in Table 3.1.
- 6.8.5 The Issues and Options consultation (January 2023) does not contain any policies or details on allocations, instead it identifies specific issues upon which consultation is sought.
- 6.8.6 Appendix C provides an analysis of the vision, development strategy and themes addressed in the Issues and Options consultation, to highlight key issues for consideration in future stages of the HRA and plan making processes. A summary of recommendations are set out below in Box 2.

Box 2: Issues and Options HRA Screening Recommendations

- Policy relating to the protection of biodiversity and geodiversity should consider the protection of functionally linked watercourses within the plan area.
- Strong policy wording around air, noise and light pollution should be incorporated into the SWLP. This should focus on habitats and species as well as human receptors.
- The SWLP should look at measures targeting a reduction of water use such as the promotion of tighter water efficiency standards
- Water quality and water supply will be a key consideration in the HRA, in particular in relation to water dependent Habitats sites and functionally linked watercourses. It is recommended that the SWLP incorporates strong policy wording around the protection of water quality to achieve Good Ecological Status.
- It is recommended that reference be made to the national green infrastructure standards⁶³ and the revised Accessible Natural Greenspace Standards (ANGSt) requirements⁶⁴ within the SWLP infrastructures provision.
- It is recommended that any GI provision complements the Local Nature Recovery Network.
- Selection of options which encourage sustainable and active transport choices will have a positive impact upon air quality with knock on benefits for Habitats sites and areas of functionally linked land and should be prioritised.
- The SWLP should provide adequate recreational provision (in the form of informal and formal recreational space) to accommodate the proposed levels of growth. This will have benefits for Habitats sites, or areas of functionally linked land, which are sensitive to recreational impacts. It is recommended that areas of open space be retained where possible.
- The Councils may wish to consider frameworks which set out how ecology can be incorporated into design such as the Wildlife Trusts (Gloucestershire Wildlife Trust) building with nature standard which is an accreditation scheme designed to enable developers to go beyond minimum standards⁶⁵.

6.9 Summary

- 6.9.1 Table 6.7 provides a summary of impact pathways which will be considered at each Habitats site in the HRA.

⁶³ Natural England. GI Framework Web Portal.

<https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>

⁶⁴ The revised ANGSt are a component of the green infrastructure standards and include additional targets for greenspace provision.

⁶⁵ Building with Nature. Available at: <https://www.buildingwithnature.org.uk/about> [Date Accessed: 13/09/22]

Table 6.7: Summary of pathways of impact at each Habitat site from the SWLP

Habitats Sites	Potential pathways of impact from the SWLP to Habitats site				
	Air pollution	Water quantity and Water quality	Recreational effects	Urbanisation effects	Functionally linked land
Bredon Hill SAC	No threat or pressure	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure
Ensor's Pools SAC	No threat or pressure	No threat or pressure	No threat or pressure	No threat or pressure	No threat or pressure
Lyppard Grange Ponds SAC	No threat or pressure	No threat or pressure	No threat or pressure	No threat or pressure	No threat or pressure
Dixton Woods SAC	No threat or pressure	No threat or pressure	No threat or pressure	No threat or pressure	No threat or pressure
Oxford Meadows SAC	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	No threat or pressure
Severn Estuary SAC	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	Vulnerable
Severn Estuary SPA	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	Vulnerable
Severn Estuary Ramsar	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	Vulnerable
Humber Estuary SAC	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	Vulnerable
Humber Estuary SPA	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	Vulnerable
Humber Estuary Ramsar	No threat or pressure	Vulnerable	No threat or pressure	No threat or pressure	Vulnerable

7 Conclusions

7.1 Summary

7.1.1 The purpose of this Preliminary HRA Scoping Report is to ensure the HRA forms an integral element of the plan-making process and that best practice is followed.

7.1.2 Recommendations and further work required are set out in Section 6. These recommendations should inform the selection of allocations and development of the SWLP policies.

7.1.3 This preliminary scoping assessment has concluded that the following Habitats sites will form the focus of the HRA.

- Bredon Hill SAC;
- Ensor's Pools SAC;
- Lyppard Grange Ponds SAC;
- Dixon Woods SAC;
- Oxford Meadows SAC;
- Severn Estuary SAC;
- Severn Estuary SPA;
- Severn Estuary Ramsar;
- Humber Estuary SAC;
- Humber Estuary SPA; and
- Humber Estuary Ramsar.

7.1.4 The following pathways of impact will be explored in more detail in subsequent stages of the HRA, drawing on other elements of the evidence base:

- A change to water quantity and water quality;
- Recreational effects; and
- Impacts upon areas of functionally linked land.

7.2 Next steps

7.2.1 The next stage of the HRA process will comprise Phase 1 of the HRA process (see Figure 2.1) – screening - and will be undertaken at Preferred Options. All components of the Preferred Options SWLP consultation will be assessed against the HRA screening criteria (see Table 3.1). Screening will take into consideration case law and best practice and outcomes will ensure the HRA influences the plan-making process and site selections in an iterative manner. The output of screening will identify Likely Significant Effects (LSE) of the SWLP on Habitats sites scoped into the HRA at this stage and identify whether Appropriate Assessment will be required. It will also set out additional recommendations (see Box 2) intended to help ensure that the SWLP does not affect the integrity of any Habitats site and detail methods for Appropriate Assessment.

7.2.2 The HRA will continue to inform the plan making process with both a re-screening and Appropriate Assessment being reported upon at Regulation 19.

7.2.3 As set out in the Habitats Regulations the Council must 'have regard' to Natural England's representations under the provisions of Regulations 63(3) and 105(2).

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Appendix A: In-Combination Assessment

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
South Worcestershire Development Plan ¹	Adopted (February 2016). Currently under review.	The SWDP is currently under review. Consultation has been undertaken on issues and options and preferred options. Publication of the Local Plan (Regulation 19) is expected late summer 2022. Approximately 13,957 net additional dwellings are required over the next plan period alongside 294ha of employment land. The HRA at preferred options screened in Likely Significant Effects (LSE) for consideration in an Appropriate Assessment (AA) at a number of Habitats sites. The AA will focus upon recreational and urbanisation effects, water quality, impacts on functionally linked land and air quality pathways of impact.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
Borough of Redditch Local Plan No.4 ²	Adopted (30 th January 2017). Currently under review.	Approximately 6,400 dwellings are required between 2011 and 2030 (3,000 in Redditch Borough, and 3,400 exported to Bromsgrove) and approximately 55ha of employment land (27.5ha within Redditch Borough, 10 Bromsgrove and 19ha Stratford-on-Avon). The Local Plan Review has begun, with the first phase of Regulation 18 consultation expected autumn 2022. No HRA work was available to support this at the time of writing. The previous HRA (prepared in support of the adopted plan) concluded no LSEs as a result of the plan.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
Bromsgrove District Plan ³	Adopted (25 th January 2017). Currently under review.	Approximately 7,000 dwellings to be delivered over the period 2011-2030 and a minimum of 28ha employment growth. The Local Plan review has begun. The preferred options consultation took place in 2018 with a district plan review and further update in 2019. At the time of writing an HRA has not been published to support the plan review.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and

¹ South Worcestershire Councils (2016) South Worcestershire Development Plan. Available at: <https://www.swdevelopmentplan.org/swdp-2016> [Date Accessed: 26/02/22]

² Redditch Borough Council (2017) Borough of Redditch Local Plan No.4. Available at: <https://www.redditchbc.gov.uk/media/2751956/Adopted-BORLP4-low-res-17-02-17.pdf> [Date Accessed: 26/02/22]

³ Bromsgrove District Council (2017) Bromsgrove District Plan 2011-2030. Available at: <https://www.bromsgrove.gov.uk/media/2673698/Adopted-BDP-January-2017.pdf> [Date Accessed: 26/02/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
			disturbance and functionally linked land LSEs.
Solihull Local Plan ⁴	Adopted by the Council on 3rd December 2013. Plan currently under review - submitted for examination on 13 May 2021	The draft local plan ⁵ sets out a requirement for 5,270 net additional homes over the plan period and rolls forward existing employment allocations alongside new allocations to meet employment demand (147,000 sq m of employment floorspace) over the plan period. The HRA prepared in support of the Plan review ⁶ concluded no LSEs on any Habitats site from the Local Plan review.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
Coventry Local Plan ⁷	Adopted 6 December 2017	A minimum of 24,600 additional homes and 128ha of employment land. It recognises the role of neighbouring authority areas to help deliver unmet need. The adopted plan was subject to HRA screening which concluded no LSEs ⁸ .	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
The West Northamptonshire Joint Core Strategy	Adopted 2014. Plan currently under review. Issues and Options consultation undertaken 2019.	Part 1 of the planning policy framework which covers the South Northamptonshire area is the West Northamptonshire Joint Core Strategy. This covers three council areas including; South Northamptonshire, Daventry and Northampton and provides a long-term vision and objectives for the area including strategic policies. It	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and

⁴ Solihull Metropolitan Borough Council. 2013. Solihull Local Plan – Shaping a Sustainable Future. Available at: <https://www.solihull.gov.uk/Planning-and-building-control/Solihull-local-plan> [Date Assessed: 26/08/22]

⁵ Solihull Metropolitan Borough Council. 2020. Solihull Local Plan – Draft Submission Plan. Available at: [https://www.solihull.gov.uk/sites/default/files/2020-12/Draft-Submission-Plan-Oct-2020%20\(1\).pdf](https://www.solihull.gov.uk/sites/default/files/2020-12/Draft-Submission-Plan-Oct-2020%20(1).pdf) [Date Assessed: 26/08/22]

⁶ Middlesbrough Environmental. 2020. Updated Habitats Regulations Assessment – Stage 1: Screening. Available at: https://www.solihull.gov.uk/sites/default/files/2020-12/HRA_Screening_Report_Sep_2020.pdf [Date Accessed: 26/08/22]

⁷ Coventry City Council. 2017. Coventry Local Plan 2011-2031. Available at: <https://www.coventry.gov.uk/planning-policy/coventry-local-plan-2011-2031> [Date Accessed: 26/08/22]

⁸ Warwickshire County Council. 2016. Habitats Regulations Assessment. Available at: https://www.coventry.gov.uk/downloads/download/1960/evidence_base_-_green_environment [Date Accessed: 26/08/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
		sets out provision for 42,620 net additional dwellings in the plan area over the plan period and a minimum net increase of 28,500 jobs. HRA was undertaken at all stages of plan making in support of the Joint Core Strategy ⁹ . This focused on likely significant effects on Rutland Water SPA and Ramsar site and on Upper Nene Valley Gravel Pits SPA and Ramsar site. The AA focused on hydrological impacts and those upon areas of functionally linked habitat and identified no adverse impact on the integrity on any Habitats site.	disturbance and functionally linked land LSEs.
South Northamptonshire Local Plan (Part 2) 2011-2029 ¹⁰	Adopted July 2020.	The delivery of new homes across South Northamptonshire, over the plan period (2011 – 2029) is disaggregated in the Joint Core Strategy Policy S3 as follows: <ul style="list-style-type: none"> • Brackley town about 2,160 • Towcester town about 2,650 • South Northamptonshire rural areas about 2,360 	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
Cotswold District Local Plan ¹¹	Adopted (3 rd August 2018) Local plan currently being updated.	At least 8,400 dwellings and 24ha for B class employment use will be delivered over the period 2011-2031. A partial update of the Local Plan is currently being prepared. The update focuses only on issues that need modification within the plan period (to 2031) and does not invite consultation and examination on matters beyond the plan period. The issues an options consultation took place in February / March 2022.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.

⁹ West Northamptonshire Joint Core Strategy HRA Evidence Base available at: <https://www.westnorthants.gov.uk/west-northamptonshire-joint-planning-unit-jpu/joint-core-strategy-adoption> [Date Accessed: 30/08/22]

¹⁰ South Northamptonshire Council. 2020. South Northamptonshire Part 2 Local Plan 2011-2029. Available at: <https://www.southnorthants.gov.uk/downloads/download/698/local-plan-part-2-adoption-documents> [Date Accessed: 30/08/22]

¹¹ Cotswold District Council (2018) Cotswold District Local Plan 2011-2031. Available at: <https://www.cotswold.gov.uk/planning-and-building/planning-policy/evidence-base-and-monitoring/> [Date Accessed: 02/02/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
The Cherwell Local Plan 2011-2031 (Part 1) ¹²	Adopted July 2015 (updated 2016) Plan currently under review.	The plan is currently under review. The Council consulted on their local Plan Review Options Consultation Paper Autumn 2021. This allows for provision of 22,840 additional dwellings and 200 hectares (gross) of employment land. The adopted Local Plan was supported by an HRA ¹³ which focused on Oxford Meadows SAC, screening out LSEs.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
West Oxfordshire Local Plan ¹⁴	Adopted September 2018. Plan currently under review.	The plan makes provision for at least 15,950 homes in the period 2011 – 2031. Employment land as follows: <ul style="list-style-type: none"> - Witney Sub-Area - 18ha - Carterton Sub-Area – 6ha - Chipping Norton Sub-Area – 5ha - Oxfordshire Cotswolds Garden Village – 40ha - Other Towns Villages and Rural Areas – 5ha This plan is under review. The Council is currently consulting upon potential areas of focus. The adopted plan was supported by an HRA ¹⁵ which concluded there was no likely significant effect of the West Oxfordshire Local Plan on any Habitats sites through any impact pathways except potentially air quality on the Oxford Meadows SAC. Following application of strong policy wording and a commitment to air quality monitoring it concluded no adverse impact upon site integrity.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.

¹² The Cherwell Local Plan. 2015. Available at: <https://www.cherwell.gov.uk/downloads/download/45/adopted-cherwell-local-plan-2011-2031-part-1-incorporating-policy-bicester-13-re-adopted-on-19-december-2016> [Date Accessed: 02/09/22]

¹³ Atkins. 2014. Submission Cherwell Local Plan incorporating Proposed Modifications (October 2014) Habitats Regulations Assessment: Stage 1 – Screening. Available at: <https://www.cherwell.gov.uk/info/83/local-plans/461/local-plan-2011-2031-part-1-examination-archive> [Date Accessed: 02/09/22]

¹⁴ West Oxfordshire District Council. 2018. West Oxfordshire Local Plan 2031. Available at: <https://www.westoxon.gov.uk/media/fevimpn/local-plan.pdf> [Date Accessed: 02/09/22]

¹⁵ URS. 2015. West Oxfordshire Pre-Submission Local Plan. Available at: <https://www.westoxon.gov.uk/media/rbff4i0/west-oxfordshire-habitat-regulations-assessment-2015.pdf> [Date Accessed: 02/09/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
Tewkesbury, Cheltenham and Gloucester Adopted Joint Core Strategy (JCS) ¹⁶	Adopted December 2017 Plan currently under review.	<p>The Joint Core Strategy (JCS) sets out the over-arching strategy for growth throughout Cheltenham, Gloucester and Tewkesbury up until 2031.</p> <p>During the plan period, provision will be made to meet the need for approximately 35,175 new homes and a minimum of 192 hectares of B-class employment land to support approximately 39,500 new jobs. This housing requirement for each local authority will be as follows:</p> <ul style="list-style-type: none"> • Gloucester at least 14,359 new homes • Cheltenham at least 10,917 new homes • Tewkesbury at least 9,899 new homes <p>Rural service centres and service villages will accommodate lower levels of development to be allocated through the Tewkesbury Borough Plan and Neighbourhood Plans, proportional to their size and function, and also reflecting their proximity and accessibility to Cheltenham and Gloucester and taking into account the environmental, economic and social impacts including existing levels of growth over the plan period.</p> <p>The JCS review is currently underway and considering a number of potential strategic sites to address the housing shortfall. These include the garden town at Tewkesbury for 10,000 homes. An issues and Options consultation was undertaken in 2018. Based on the information available in 2018, the minimum requirement in the JCS area for an extended plan period would be in the region of 1,780 new homes a year. In contrast, the current figure for the JCS area is approximately 1,760.</p>	<p>Yes.</p> <p>This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.</p>

¹⁶ <https://www.jointcorestrategy.org/>

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
Tewkesbury Borough Plan 2011 - 2031 ¹⁷	The Local Plan was adopted on 8 th June 2022.	<p>The Joint Core Strategy provides strategic level guidance for Gloucester City Council, Cheltenham Borough Council and Tewkesbury Borough Council. Policy SA1 identifies where the larger housing and employment development will be located.</p> <p>As proposed in Policy SP2 of the Joint Core Strategy, to meet the development needed in Tewkesbury borough for new homes during the plan period to 2031. The requirement is a minimum of 9,899 new homes between 2011-2031.</p> <p>At least 7,445 dwellings (as of April 2017) will be provided through existing commitments, development in Tewkesbury Town in line with its role as a market town, smaller scale development meeting local needs at Rural Service Centres and Service Villages, and sites covered by any Memoranda or Agreement.</p> <p>In addition, Tewkesbury Borough Plan allocates 1,115 homes over the plan period which are considered to be non-strategic scale site allocations.</p> <p>These allocations do not include strategic site options being considered as part of the JCS review at Ashchurch and Northway.</p>	<p>Yes.</p> <p>This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.</p>
Gloucester City Plan ¹⁸	The Gloucester City Plan was submitted to the Planning Inspectorate 18th November 2020. Main modifications were prepared to ensure the plan is sound. Consultation on the main modifications took place in spring / summer 2022.	<p>Approximately 34% of Gloucester's housing needs will be delivered through 'Strategic Allocations' in the JCS.</p> <p>A substantial proportion has been and will be provided for within Gloucester's administrative area. Some of the needs within the plan period (since 2011) have already been delivered, having been granted planning permission and built or are under construction. Many more already have planning permission (known as 'commitments') and will be constructed over the next few years. In addition, the City Council makes an allowance for 'windfall' development; this is development that comes forward on sites that are not allocated for development.</p>	<p>Yes.</p> <p>This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.</p>

¹⁷ Tewkesbury Borough Council (2022) Tewkesbury Borough Plan 2011-2031. Adoption Version. Available at: <https://www.tewkesbury.gov.uk/local-plan> [Date Accessed: 15/07/22]

¹⁸ Gloucester City Council (2019) Pre-Submission Gloucester City Plan 2011 - 2031. Available at: <https://gloucester.inconsult.uk/consult/ti/cityplan.presub/consultationHome> [Date Accessed: 07/09/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
		Further capacity is to be delivered through site allocations within the Gloucester City Plan. In total, the GCP makes 22 site allocations for residential development, employment development, mixed-use development, a school and community use. This includes approx. 840 residential units.	
The Cheltenham Plan ¹⁹	The Cheltenham Plan was adopted on the 20 July 2020.	The JCS identifies objectively assessed housing need for the area and sets out requirements for strategic sites. To complement the strategic allocations being made through the Joint Core Strategy (JCS) and in order to ensure that Cheltenham Borough meets its objectively assessed need (OAN) up to 2031, the Cheltenham Plan makes a number of allocations for both residential development and mixed-use development through Policies H1 (430 units) and H2 (493 units).	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology, public access and disturbance and functionally linked land LSEs.
Warwickshire Local Transport Plan ²⁰ (LTP3)	Adopted April 2011	LTP3 sets out the transport strategy and policies for the County from 2011 to 2026. Among other objectives it aims to reduce transport's emissions of carbon dioxide and other greenhouse gases, and address the need to adapt to climate change. It was supported by an HRA ²¹ , which concluded no likely significant effects.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality LSEs.
Warwickshire Minerals Local Plan ²²	Submitted for independent examination November 2019	This plan is a Development Plan Document which sets out the spatial strategy, vision, objectives and policies for guiding minerals	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air

¹⁹ Cheltenham Borough Council (2020) Cheltenham Plan. Available at: https://www.cheltenham.gov.uk/downloads/file/8169/cheltenham_plan [Date Accessed: 07/09/22]

²⁰ Warwickshire County Council (2011) Worcestershire's Local Transport Plan (LTP) 2011-2026. Available at: <https://www.warwickshire.gov.uk/directory-record/2149/local-transport-plan-2011-2026> [Date Accessed: 02/09/22]

²¹ Warwickshire County Council (2010). Local Transport Plan Habitats Regulations Assessment. Available at: <https://www.warwickshire.gov.uk/directory-record/2149/local-transport-plan-2011-2026> [Date Accessed: 02/09/22]

²² Warwickshire County Council (2019) Warwickshire Minerals Plan 2018. Available at: <https://www.warwickshire.gov.uk/mdf> [Date Accessed: 06/09/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
		development in the County until 2032. It was supported by an HRA ²³ which focused on Ensor's Pool SAC and the River Mease SAC. Drawing on strong policy wording in relation to buffer zones, it concluded there would be no adverse impact on site integrity at either site.	quality, hydrology and functionally linked land LSEs.
Warwickshire Waste Core Strategy ²⁴	Adopted (9 th July 2013)	The Strategy sets out the Spatial Strategy, Vision, Objectives and Policies for managing waste for a 15 year plan period up to 2028. It also provides the framework for waste development management including implementation and monitoring. It was supported by an HRA which concluded no adverse impacts on site integrity.	Yes. This plan will trigger change or development adjacent to the Plan area. There is potential for in-combination air quality, hydrology and functionally linked land LSEs.
Severn River Basin Management Plan (RBMP) ²⁵	Updated 2015	The RBMP provides a framework for protecting and enhancing the benefits provided by the water environment. To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning. It provides strategic level policy guidance in relation to baseline classification of water bodies, statutory objectives for protected areas and water bodies and a summary of measures to achieve statutory protection. The Severn RBMP outlines measures to tackle these water management issues and achieve a series of environmental objectives set out within the plan. These are set out on a catchment basis. An HRA was prepared alongside the development of the Severn RBMP. This concluded the following with respect to impacts on Habitats sites: <i>"It is determined that, at this strategic plan level, the range of potential mitigation options available allow a conclusion that</i>	This plan aims to protect the water environment. It has the potential to have a positive in-combination effect with the Local Plan on the water environment.

²³ Warwickshire County Council (2019). Habitats Regulations Assessment. Screening Decision and Appropriate Assessment. https://warwickshire-consult.objective.co.uk/portal/warwickshire_minerals_plan_submission
Available at: [Date Accessed: 06/09/22]

²⁴ Warwickshire County Council (2013) Waste Core Strategy. Adopted Local Plan 2013-2028. Available at: <https://www.warwickshire.gov.uk/mineral-waste-plans/waste-development-framework/1> [Date Accessed: 06/09/22]

²⁵ Environment Agency (2015) Severn River Basin Management Plan. Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718336/Severn_RBD_Part_1_river_basin_management_plan.pdf [Date Accessed: 06/09/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
		<i>the RBMP is not likely to have any significant effects on any European sites, alone or in combination with other plans or projects. Given this conclusion, there is no requirement, at this strategic plan level, to progress to the next stage of the Habitats Regulations Assessment (an 'appropriate assessment' to examine the question of adverse effects on the integrity of European sites)</i> ²⁶ . It notes that HRA requirements will continue to apply to lower tier plan and project level assessments.	
Humber River Basin Management Plan ²⁷	Published	<p>The Humber RBMP sets out a number of water management issues to rivers within this river basin as follows:</p> <ul style="list-style-type: none"> - Physical modifications; - Pollution from wastewater; - Pollution from towns, cities and transport; - Changes to the natural flow and level of water; - Negative effects of invasive non-native species; - Pollution from rural areas; and - Pollution from abandoned mines. <p>An HRA was prepared alongside the development of the Humber RBMP²⁸. This concluded the following with respect to impacts on European sites: <i>"the updated RBMP ... proposed measures are not likely to have any significant effects on any European sites, alone or in-combination with other plans or projects"</i>. It notes that HRA requirements will continue to apply to lower tier plan and project level assessments.</p>	This plan aims to protect the water environment. It has the potential to have a positive in-combination effect with the Local Plan on the water environment.

²⁶ Environment Agency (2015) River basin management plan for the Severn River Basin District Habitats Regulations Assessment Updated December 2015.

²⁷ Environment Agency (2015) Humber River Basin District River Basin Management Plan. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718328/Humber_RBD_Part_1_river_basin_management_plan.pdf [Date Accessed: 06/09/22]

²⁸ Environment Agency (2015) Humber River basin management plan HRA. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/496431/RBMP_HRA_Humber_FINAL_Jan_2016.pdf [Date Accessed: 06/09/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
Thames River Basin Management Plan (RMBP) ²⁹		<p>This plan provides a framework for protecting and enhancing the benefits provided by the water environment. To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning. It provides strategic level policy guidance in relation to baseline classification of water bodies, statutory objectives for protected areas and water bodies and a summary of measures to achieve statutory protection.</p> <p>It was supported by an HRA which was carried out by the Environment Agency, in consultation with Natural England³⁰. It determined that, at the strategic plan level, the range of potential mitigation options available allow a conclusion that the RBMP is not likely to have any significant effects on any Habitats sites, alone or in combination with other plans or projects. It notes that HRA requirements will continue to apply for lower tier plan and project level assessments.</p>	This plan aims to protect the water environment. It has the potential to have a positive in-combination effect with the Local Plan on the water environment.
Severn Trent Water Resources Management Plan ³¹	Published August 2019	<p>The WRMP forecasts a significant deficit between supply and demand for water. The key difference from previous plans is the need to prevent the risk of future environmental deterioration, which is a fundamental requirement of the WFD. This means that, to protect the environment, a number of current sources of water cannot be relied upon in the future and an alternative way of meeting demand has been identified.</p>	This plan aims to protect the water environment. It has the potential to have a positive in-combination effect with the Local Plan on the water environment.

²⁹ Environment Agency (2015) Thames River Basin Management Plan. Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718342/Thames_RBD_Part_1_river_basin_management_plan.pdf [Date Accessed: 07/09/22]

³⁰ Environment Agency (2015) River basin management plan for the Thames River Basin District Habitats Regulations Assessment Updated December 2015. Available at:

<https://www.gov.uk/government/publications/thames-river-basin-district-habitat-regulation-assessment-hra-report> [Date Accessed: 07/09/22]

³¹ Severn Trent (2019) Water Resources Management Plan 2019. Available at: <https://www.severntrent.com/content/dam/stw-plc/our-plans/severn-trent-water-resource-management-plan.pdf> [Date Accessed: 06/09/22]

Plans and Policies	Plan Status	Summary of housing/employment	Potential in-combination LSE
		<p>An HRA was published alongside this plan³². It concluded the following:</p> <p><i>“Severn Trent’s’ Final WRMP19 will have no adverse effects on the site integrity of any European sites, either alone or in-combination with any other plans, programmes or projects. As the solutions in the Final WRMP19 are brought forward for development in the future, project-specific HRA will be carried out in support of the necessary applications for planning permission and/or environmental permits. The project-specific HRA will need to consider the prevailing conditions and European site conservation objectives and Site Improvement Plans in place at the time, as well as the final detailed design of the solution”.</i></p>	

³² Ricardo (2019) Final Water Resources Management Plan 2019 Habitats Regulations Assessment. Available at: <https://www.severntrent.com/content/dam/stw-plc/water-resource-zones/2019/WRMP19-HRA-Final-Report.pdf> [Date Accessed: 06/09/22]

Appendix B: Habitats Site Conservation Objectives and Threats and Pressures

Bredon Hill SAC¹

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of the habitats of qualifying species;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Qualifying Features:

S1079. *Limoniscus violaceus*; Violet click beetle.

Threats and Pressures at Habitat site which may be affected by the SWLP^{2,3}:

- Air pollution – impact of nitrogen deposition and acidification.

¹ Natural England (2018) Bredon Hill SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/file/6278893137035264> [Date Accessed: 07/09/22]

² Natural England (2015) Bredon Hill SAC SIP. Available at: <http://publications.naturalengland.org.uk/publication/6073334638837760> [Date Accessed: 08/09/22]

³ Natural England (2019) Bredon Hill SAC Conservation Objectives Supplementary Advice. Available at:
<http://publications.naturalengland.org.uk/publication/5415467531370496> [Date Accessed: 08/09/22]

Dixton Wood SAC⁴

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of the habitats of qualifying species;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Qualifying Features:

S1079. *Limoniscus violaceus*; Violet click beetle.

Threats and Pressures at Habitat site which may be affected by the SWLP^{5,6}:

- Air pollution – impact of nitrogen deposition and acidification.

⁴ Natural England (2018) Dixton Wood SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/file/6243505357979648> [Date Accessed: 08/09/22]

⁵ Natural England (2015) Dixton Woods SAC SIP. Available at: <http://publications.naturalengland.org.uk/publication/5468132676206592>
[Date Accessed: 08/09/22]

⁶ Natural England (2019) Dixton Woods SAC Conservation Objectives Supplementary Advice. Available at:
<http://publications.naturalengland.org.uk/publication/5431957534015488> [Date Accessed: 08/09/22]

Lyppard Grange Ponds SAC⁷

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of the habitats of qualifying species;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Qualifying features:

S1166. *Triturus cristatus*; Great crested newt.

Threats and Pressures at Habitat site which may be affected by the SWLP^{8,9}:

- Air pollution.
- Water quality and quantity.

⁷ Natural England (2018) Lyppard Grange Ponds SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/file/4836130474426368> [Date Accessed: 08/09/22]

⁸ Natural England (2015) Lyppard Grange Ponds SAC SIP. Available at:
<http://publications.naturalengland.org.uk/publication/4607626272833536> [Date Accessed: 08/09/22]

⁹ Natural England (2019) Dixon Woods SAC Conservation Objectives Supplementary Advice. Available at:
<http://publications.naturalengland.org.uk/publication/5431957534015488> [Date Accessed: 08/09/22]

Ensor Pools SAC¹⁰

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:

- The extent and distribution of the habitats of qualifying species;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Qualifying features:

S1092. Austropotamobius pallipes; White-clawed (or Atlantic stream) crayfish

Threats and Pressures at Habitat site which may be affected by the SWLP^{11,12}:

- Air pollution.
- Water quality.

¹⁰ Natural England (2018) Ensor's Pool SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/publication/6577286383927296> [Date Accessed: 07/09/22]

¹¹ Natural England (2014) Ensor's Pool SAC SIP. Available at: <http://publications.naturalengland.org.uk/publication/4607626272833536> [Date Accessed: 08/09/22]

¹² Natural England (2019) Ensor's Pool SAC Conservation Objectives Supplementary Advice. Available at:
<http://publications.naturalengland.org.uk/publication/6577286383927296> [Date Accessed: 08/09/22]

Oxford Meadows SAC¹³

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Qualifying features:

- H6510. Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)
- S1614. *Apium repens*; Creeping marshwort.

Threats and Pressures at Habitat site which may be affected by the SWLP^{14,15}:

- Hydrological Change.

¹³ Natural England (2018) Oxford Meadows SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/publication/5815888603250688> [Date Accessed: 07/09/22]

¹⁴ Natural England (2014) Oxford Meadows SAC SIP. Available at: <http://publications.naturalengland.org.uk/publication/4942743310696448>
[Date Accessed: 08/09/22]

¹⁵ Natural England (2019) Oxford Meadows SAC Conservation Objectives Supplementary Advice. Available at:
<http://publications.naturalengland.org.uk/publication/5815888603250688> [Date Accessed: 08/09/22]

Severn Estuary SPA¹⁶

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or 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 population of each of the qualifying features; and
- The distribution of the qualifying features within the site.

Qualifying features:

- A037 *Cygnus columbianus bewickii*; Bewick's swan (Non-breeding);
- A048 *Tadorna tadorna*; Common shelduck (Non-breeding);
- A051 *Anas strepera*; Gadwall (Non-breeding);
- A149 *Calidris alpina alpina*; Dunlin (Non-breeding);
- A162 *Tringa totanus*; Common redshank (Non-breeding); and
- A394 *Anser albifrons albifrons*; Greater white-fronted goose (Non-breeding) Waterbird assemblage – see table below.

On the most recent Natura 2000 standard data form¹⁷, the waterfowl assemblage population size was stated as 84,317 whilst the latest Wetland Birds in the UK report¹⁸ cites the figure of 86,836. The most recent form does not include a list of species which make up the waterfowl assemblage for the Severn Estuary SPA. However, the 2001 SPA Review¹⁹ lists 12 additional species (see Table below), which are referred to in the HRA report as “SPA Waterfowl Assemblage Species”²⁰.

Threats and Pressures at Habitat site which may be affected by the SWLP^{21,22}:

- Public access and disturbance.
- Impacts of development.
- Air pollution.
- Water quality and quantity.
- Noise and visual disturbance.

¹⁶ Natural England (2019) Severn Estuary SPA Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/file/6288530213175296> [Date Accessed: 08/09/22]

¹⁷ <http://jncc.defra.gov.uk/pdf/SPA/UK9015022.pdf>

¹⁸ Frost, T.M., Calbrade, N.A., Birtles, G.A., Mellan, H.J., Hall, C., Robinson, A.E., Wotton, S.R., Balmer, D.E. & Austin, G.E. (2020) *Waterbirds in the UK 2018/19: The Wetland Bird Survey*. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford.

¹⁹ Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H. & Whitehead, S. (eds). (2001) *The UK SPA network: its scope and content*. JNCC. Peterborough.

²⁰ Palmer, E. and Smart, M. (2021) Identification of wintering and passage roosts on functionally linked land of the Severn Estuary - Gloucestershire and Worcestershire (Phase 5). Natural England Commissioned Reports. NECR401.

²¹ Natural England (2015) Severn Estuary (SPA and SAC) SIP. Available at: <http://publications.naturalengland.org.uk/publication/4590676519944192> [Date Accessed: 08/09/22]

²² Natural England (2012) Severn Estuary EMS Regulation 33 Conservation Advice Package. Available at: <http://publications.naturalengland.org.uk/publication/3184206> [Date Accessed: 08/09/22]

*Severn Estuary SPA Waterfowl Assemblage Species*²³

English Name	Scientific name
Curlew	<i>Numenius arquata</i>
Grey Plover	<i>Pluvialis squatarola</i>
Lapwing	<i>Vanellus vanellus</i>
Mallard	<i>Anas platyrhynchos</i>
Pintail	<i>Anas acuta</i>
Pochard	<i>Aythya ferina</i>
Shoveler	<i>Anas clypeata</i>
Spotted Redshank	<i>Tringa erythropus</i>
Teal	<i>Anas crecca</i>
Tufted Duck	<i>Aythya fuligula</i>
Whimbrel	<i>Numenius phaeopus</i>
Wigeon	<i>Anas penelope</i>

²³ Stroud, D.A., Chambers, D., Cook, S., Buxton, N., Fraser, B., Clement, P., Lewis, P., McLean, I., Baker, H. & Whitehead, S. (eds). (2001) *The UK SPA network: its scope and content*. JNCC. Peterborough.

Severn Estuary SAC²⁴

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely;
- The populations of qualifying species; and
- The distribution of qualifying species within the site.

Qualifying features:

- H1110. Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks;
- H1130. Estuaries;
- H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats;
- H1170. Reefs;
- H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritima*); Atlantic salt meadows;
- S1095. *Petromyzon marinus*; Sea lamprey;
- S1099. *Lampetra fluviatilis*; River lamprey; and
- S1103. *Alosa fallax*; Twaite shad.

Threats and Pressures at Habitat site which may be affected by the SWLP^{25,26}:

- Public access and disturbance.
- Impacts of development.
- Air pollution.
- Water quality and quantity.
- Noise and visual disturbance.

²⁴ Natural England (2019) Severn Estuary SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/file/6377265718099968> [Date Accessed: 08/09/22]

²⁵ Natural England (2015) Severn Estuary (SPA and SAC) SIP. Available at:
<http://publications.naturalengland.org.uk/publication/4590676519944192> [Date Accessed: 08/09/22]

²⁶ Natural England (2012) Severn Estuary EMS Regulation 33 Conservation Advice Package. Available at:
<http://publications.naturalengland.org.uk/publication/3184206> [Date Accessed: 08/09/22]

Severn Estuary Ramsar²⁷

Ramsar sites do not have the Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
1	Due to immense tidal range (second-largest in world), this affects both the physical environment and biological communities.
3	Due to unusual estuarine communities, reduced diversity and high productivity.
4	<p>This site is important for the run of migratory fish between sea and river via estuary. Species include:</p> <ul style="list-style-type: none"> • Salmon <i>Salmo salar</i>; • Sea trout <i>S. trutta</i>; • Sea lamprey <i>Petromyzon marinus</i>; • River lamprey <i>Lampetra fluviatilis</i>; • Allis shad <i>Alosa alosa</i>; • Twait shad <i>A. fallax</i>, and • Eel <i>Anguilla anguilla</i>. <p>It is also of particular importance for migratory birds during spring and autumn.</p>
5	Assemblages of international importance:
	Species with peak counts in winter:
	70919 waterfowl (5 year peak mean 1998/99-2002/2003)
6	Species/populations occurring at levels of international importance.

Qualifying species/populations (as identified at designation):

Species with peak counts in winter:

Tundra swan, <i>Cygnus columbianus bewickii</i> , NW Europe	229 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/9-2002/3)
Greater white-fronted goose, <i>Anser albifrons albifrons</i> , NW Europe	2076 individuals, representing an average of 35.8% of the GB population (5 year peak mean for 1996/7-2000/01)
Common shelduck, <i>Tadorna tadorna</i> , NW Europe	3223 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
Gadwall, <i>Anas strepera strepera</i> , NW Europe	241 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin, <i>Calidris alpina alpina</i> , W Siberia/W Europe	25082 individuals, representing an average of 1.8% of the population (5 year peak mean 1998/9-2002/3)

²⁷ JNCC (2008) Ramsar Information Sheet: UK11081 Severn Estuary. Available at: <https://jncc.gov.uk/jncc-assets/RIS/UK11081.pdf> [Date Accessed: 08/09/22]

Common redshank, <i>Tringa totanus totanus</i>	2616 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)
Species/populations identified subsequent to designation for possible future consideration under criterion 6.	
Species regularly supported during the breeding season:	
Lesser black-backed gull, <i>Larus fuscus graellsii</i> , W Europe/Mediterranean/W Africa	4167 apparently occupied nests, representing an average of 2.8% of the breeding population (Seabird 2000 Census)
Species with peak counts in spring/autumn:	
Ringed plover, <i>Charadrius hiaticula</i> , Europe/Northwest Africa	740 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3)
Species with peak counts in winter:	
Eurasian teal, <i>Anas crecca</i> , NW Europe	4456 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9- 2002/3)
Northern pintail, <i>Anas acuta</i> , NW Europe	756 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9- 2002/3)

- 8 The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.
- Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla* use the Severn Estuary as a key migration route to their spawning grounds in the many tributaries that flow into the estuary.
- The site is important as a feeding and nursery ground for many fish species particularly allis shad *Alosa alosa* and twaite shad *A. fallax* which feed on mysid shrimps in the salt wedge.

Threats and Pressures at Habitat site which may be affected by the SWLP²⁸:

- Public access and disturbance.
- Impacts of development.
- Air pollution.
- Water quality and quantity.
- Noise and visual disturbance.

²⁸ Natural England (2012) Severn Estuary EMS Regulation 33 Conservation Advice Package. Available at: <http://publications.naturalengland.org.uk/publication/3184206> [Date Accessed: 08/09/22]

Humber Estuary SAC²⁹

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats;
- The structure and function of the habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species; and,
- The distribution of qualifying species within the site.

Qualifying features:

H1110. Sandbanks which are slightly covered by sea water all of the time; Subtidal sandbanks

H1130. Estuaries

H1140. Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats

H1150. Coastal lagoons*

H1310. Salicornia and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand

H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) H2110. Embryonic shifting dunes

H2120. Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram

H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland* H2160. Dunes with *Hippophae rhamnoides*; Dunes with sea-buckthorn

S1095. *Petromyzon marinus*; Sea lamprey

S1099. *Lampetra fluviatilis*; River lamprey

S1364. *Halichoerus grypus*; Grey seal

Threats and Pressures at Habitat site which may be affected by the SWLP^{30,31}:

- Water pollution.
- Public access and disturbance.
- Air quality.
- Direct land take from development.

²⁹ Natural England (2018) Humber Estuary SAC Conservation Objectives. Available at:
<http://publications.naturalengland.org.uk/publication/5009545743040512> [Date Accessed: 08/09/22]

³⁰ Other threats / pressures identified in the SIP are not considered likely to be influenced by the SWLP.

³¹ Natural England (2015) Humber Estuary (SAC and SPA) SIP. Available at:
<http://publications.naturalengland.org.uk/file/5730884670980096> [Date Accessed: 08/09/22]

Humber Estuary SPA³²

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or 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 population of each of the qualifying features; and
- The distribution of the qualifying features within the site.

Qualifying features:

A021 *Botaurus stellaris*; Great bittern (Non-breeding)

A021 *Botaurus stellaris*; Great bittern (Breeding)

A048 *Tadorna tadorna*; Common shelduck (Non-breeding)

A081 *Circus aeruginosus*; Eurasian marsh harrier (Breeding)

A082 *Circus cyaneus*; Hen harrier (Non-breeding)

A132 *Recurvirostra avosetta*; Pied avocet (Non-breeding)

A132 *Recurvirostra avosetta*; Pied avocet (Breeding)

A140 *Pluvialis apricaria*; European golden plover (Non-breeding)

A143 *Calidris canutus*; Red knot (Non-breeding)

A149 *Calidris alpina alpina*; Dunlin (Non-breeding)

A151 *Philomachus pugnax*; Ruff (Non-breeding)

A156 *Limosa limosa islandica*; Black-tailed godwit (Non-breeding)

A157 *Limosa lapponica*; Bar-tailed godwit (Non-breeding)

A162 *Tringa totanus*; Common redshank (Non-breeding)

A195 *Sterna albifrons*; Little tern (Breeding)

Waterbird assemblage

Threats and Pressures at Habitat site which may be affected by the SWLP^{33,34}:

- Water pollution.
- Public access and disturbance.
- Air quality.
- Direct land take from development.

³² Natural England (2019) Humber Estuary SPA Conservation Objectives. Available at: <http://publications.naturalengland.org.uk/publication/5382184353398784> [Date Accessed: 08/09/22]

³³ Other threats / pressures identified in the SIP are not considered likely to be influenced by the SWLP.

³⁴ Natural England (2015) Humber Estuary SIP. Available at: <http://publications.naturalengland.org.uk/file/5730884670980096> [Date Accessed: 08/09/22]

Humber Estuary Ramsar ³⁵

Ramsar sites do not have the Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
1	The site is a representative example of a near-natural estuary with the following component habitats: dune systems and humid dune slacks, estuarine waters, intertidal mud and sand flats, saltmarshes, and coastal brackish/saline lagoons. It is a large macro-tidal coastal plain estuary with high suspended sediment loads, which feed a dynamic and rapidly changing system of accreting and eroding intertidal and subtidal mudflats, sandflats, saltmarsh and reedbeds. Examples of both strandline, foredune, mobile, semi-fixed dunes, fixed dunes and dune grassland occur on both banks of the estuary and along the coast. The estuary supports a full range of saline conditions from the open coast to the limit of saline intrusion on the tidal rivers of the Ouse and Trent. Wave exposed sandy shores are found in the outer/open coast areas of the estuary. These change to the more moderately exposed sandy shores and then to sheltered muddy shores within the main body of the estuary and up into the tidal rivers. The lower saltmarsh of the Humber is dominated by common cordgrass <i>Spartina anglica</i> and annual glasswort <i>Salicornia</i> communities. Low to mid marsh communities are mostly represented by sea aster <i>Aster tripolium</i> , common saltmarsh grass <i>Puccinellia maritima</i> and sea purslane <i>Atriplex portulacoides</i> communities. The upper portion of the saltmarsh community is atypical, dominated by sea couch <i>Elytrigia atherica</i> (<i>Elymus pycnanthus</i>) saltmarsh community. In the upper reaches of the estuary, the tidal marsh community is dominated by the common reed <i>Phragmites australis</i> fen and sea club rush <i>Bolboschoenus maritimus</i> swamp with the couch grass <i>Elytrigia repens</i> (<i>Elymus repens</i>) saltmarsh community. Within the Humber Estuary Ramsar site there are good examples of four of the five physiographic types of saline lagoon.
3	The Humber Estuary Ramsar site supports a breeding colony of grey seals <i>Halichoerus grypus</i> at Donna Nook. It is the second largest grey seal colony in England and the furthest south regular breeding site on the east coast. The dune slacks at Saltfleetby-Theddlethorpe on the southern extremity of the Ramsar site are the most north-easterly breeding site in Great Britain of the natterjack toad <i>Bufo calamita</i> .
5	Assemblages of international importance: 153,934 waterfowl, non-breeding season (5 year peak mean 1996/97-2000/2001)
6	Species/populations occurring at levels of international importance.

Qualifying species/populations (as identified at designation):

Species with peak counts in winter:

Common shelduck, <i>Tadorna tadorna</i> , NW Europe	4464 individuals, representing an average of 1.5% of the population (5 year peak mean 1996/7-2000/1)
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³⁵ JNCC (2007) Ramsar Information Sheet: Humber Estuary. Available at: <https://rsis.ramsar.org/RSapp/files/RSrep/GB663RIS.pdf> [Date Accessed: 08/09/22]

Eurasian golden plover, <i>Pluvialis apricaria</i> <i>altifrons</i> subspecies, NW Europe, W Continental Europe, NW Africa population	30,709 individuals, representing an average of 3.3% of the GB population (5 year peak mean 1996/7-2000/1)
Red Knot, <i>Calidris canutus islandica</i> subspecies	28165 individuals, representing an average of 6.3% of the population (5 year peak mean 1996/7-2000/1)
Dunlin, <i>Calidris alpina alpina</i> , Europe	22222 individuals, representing an average of 1.7% of the population (5 year peak mean 1996/7-2000/1)
Black-tailed godwit, <i>Limosa limosa islandica</i> subspecies	1,113 individuals, wintering, representing an average of 3.2% of the population (5 year peak mean 1996/7-2000/1)
Bar-tailed godwit, <i>Limosa lapponica lapponica</i> subspecies	2,752 individuals, wintering, representing an average of 2.3% of the population (5 year peak mean 1996/7-2000/1)
Common redshank, <i>Tringa totanus totanus</i>	4632 individuals, representing an average of 3.6% of the population (5 year peak mean 1996/7- 2000/1)

8

The Humber Estuary acts as an important migration route for both river lamprey *Lampetra fluviatilis* and sea lamprey *Petromyzon marinus* between coastal waters and their spawning areas.

Threats and Pressures at Habitat site which may be affected by the SWLP:

- Water pollution (domestic sewage).
- Public access and disturbance.
- Air quality.

Appendix C: Preliminary screening of issues and options consultation

Vision and strategic objectives

Issues and Options section ¹	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Vision for the Local Plan	The vision is to meet South Warwickshire's sustainable development needs to 2050, while responding to the climate emergency. Where appropriate and agreed, this could include unmet need from neighbouring authorities. The plan will provide homes and jobs, boost and diversify the local economy, and provide appropriate infrastructure, in suitable locations, at the right time. Five overarching principles will determine how this development is delivered	The vision provides a positive framework for nature conservation and will be drawn upon to inform the HRA process.
Strategic Objectives	These objectives provide a greater level of detail as to how the overall vision will be delivered.	The objectives provide a positive framework for nature conservation and will be drawn upon to inform the HRA process.

Meeting South Warwickshire's Sustainable Development Needs

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue I1: Sustainability Appraisal	This policy notes that the Sustainability Appraisal process will inform the development of the Local Plan - identifying, describing and evaluating a number of different reasonable alternative policies and development locations.	The output of the SA will have a positive influence on development of the Local Plan and will benefit the HRA in particular in terms of its consideration of biodiversity impacts.
Issue I2: Infrastructure Requirements and Delivery	Options here focuses on aligning infrastructure to meet local plan growth, linking to the overarching vision for the SWLP and ask how far the Part 1 Plan should go regarding infrastructure requirements. The consultation asks if the plan should set out detailed or strategic level infrastructure requirements.	Infrastructure provision includes aspects such as Green Infrastructure (GI) which connects biodiversity networks and improves the biodiversity resource in the plan area. It also promotes sustainable forms of transport, with air quality benefits. Such infrastructure will have a positive impact for Habitats and functionally linked land. It may be helpful to reference the national green infrastructure standards ² and the revised Accessible Natural Greenspace Standards (ANGSt) requirements ³ within the SWLP infrastructures provision. It is also recommended that any GI complement Local Nature Recovery Networks.
Issue I3: Community Infrastructure Level (CIL)	CIL is intended to fund infrastructure requirements. This option looks at how funding could be established to support delivery of the Local Plan – either through a South Warwickshire CIL or a levy within each district.	As above.
Issue I4: Viability and Deliverability	This section of the consultation seeks comments on the viability and deliverability of infrastructure.	Infrastructure schemes include those associated with both road and public transport improvements. Promotion of public transport options will have a beneficial impact upon air quality with positive impacts for biodiversity assets.
Issue S1: Green and Blue Corridors	This section of the consultation looks at where green and blue corridors may be located and if they should be identified in advance of the Local Nature Recovery Strategy.	Provision of green corridors will connect biodiversity networks and improve biodiversity resource in the plan area. They also promote sustainable forms of transport, which in turn will deliver air quality benefits. Such corridors will have a positive impact for Habitats and areas of functionally linked land.

¹ South Warwickshire Councils. January 2023. South Warwickshire Stage 2: Issues and Options Consultation.

² Natural England. GI Framework Web Portal. <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>

³ The revised ANGSt are a component of the green infrastructure standards and include additional targets for greenspace provision.

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
		It may be helpful to reference the national green infrastructure standards ⁴ and the revised Accessible Natural Greenspace Standards (ANGSt) requirements ⁵ within the SWLP infrastructures provision. It is also recommended that any green infrastructure complement Local Nature Recovery Networks. Reference should be made to Natural England's GI Framework – Principles and Standards ⁶ .
Issue S2: Intensification	This section looks at policy options around intensification in terms of areas and design codes.	Intensification has a number of environmental benefits such as use of brownfield land, tackling climate change, reducing travel and promoting active travel. These will lead to knock-on impacts which will benefit Habitats sites and areas of linking habitat – such as improvements in air quality.
Issue S3: Using brownfield land for development	This option looks at how policy should prioritise use of brownfield land.	Use of brownfield land will reduce development pressure upon undeveloped land. This may in turn safeguard biodiversity resource with knock-on positive impacts for Habitats sites and areas of linking habitat.
Issue S4: Growth of existing settlements	This option looks at how growth at existing settlements could contribute to the overall strategy.	All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land.
Issue S5: The potential for new settlement(s)	This element of the consultation looks at how new settlements should be considered as part of the overall strategy including thresholds and potential locations.	All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land. All new settlement options are focused on the rail network and corridors. The location of development within these areas would promote sustainable transport options. This would have a positive impact upon air quality with knock-on positive impacts upon Habitats sites (and areas of functionally linked land) which may be sensitive to air pollution.
Issue S6: A review of Green Belt boundaries	This section of the Issues and Options paper looks at existing Green Belt boundaries and whether these should be altered to allow for development in certain areas currently within Green Belt.	The approach taken in selecting options for growth has been 'blind' to whether a particular location or corridor is within the Green Belt. Loss of open space should sit alongside provision of an appropriate level and scale of green space to meet recreational needs of future residents. Provision of green space should be linked to existing and future green infrastructure (and the future Local Nature Recovery Network) to ensure maximum biodiversity benefits are achieved through design.
Issue S7: Refined Growth Options	<p>The consultation considers five growth options as follows:</p> <ul style="list-style-type: none"> Option 1: Rail Corridors Option 2: Sustainable Travel Option 3: Economy Option 4: Sustainable Travel and Economy Option 5: Dispersed <p>The consultation asks which growth option would be appropriate for South Warwickshire.</p>	<p>All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land. A preliminary assessment is provided for each growth option below.</p> <p>As noted in the consultation document (and in the row above) all five options will involve the loss of some Green Belt land.</p>

⁴ Natural England. GI Framework Web Portal. <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>

⁵ The revised ANGSt are a component of the green infrastructure standards and include additional targets for greenspace provision.

⁶ Natural England. Introduction to the Green Infrastructure Framework – Principles and Standards for England. Available at: <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx> [Date Accessed: 17/11/22]

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
		Open green space provides alternative areas of recreational space (as an alternative to designated sites – such as Habitats sites). Where Green Belt is lost it is important to ensure that sufficient recreational resource is provided for the forecast level of growth over the plan period. This should be linked sensitivity to the existing network of biodiversity assets and consider future strengthening of this network (through the Local Nature Recovery Network).
Option 1 – Rail Corridors	Option 1 focuses growth along rail corridors, particularly around existing railway stations, but also anticipating the possibility of new stations on existing lines, or re-opening closed lines.	Option 1 would promote the use of sustainable modes of transport. This would have a positive impact upon air quality with knock-on positive impacts upon Habitats sites (and areas of functionally linked land) which may be sensitive to air pollution.
Option 2 – Sustainable Travel	Option 2 is a hybrid of Option 1, and main bus corridor options presented in the Scoping Consultation. It aims to build on the strengths of Option 1, while recognising that in many parts of South Warwickshire, bus travel is the only viable public transport option.	Option 1 would promote the use of sustainable modes of transport. This would have a positive impact upon air quality with knock-on positive impacts upon Habitats sites (and areas of functionally linked land) which may be sensitive to air pollution.
Option 3 – Economy	Option 3 is a hybrid of the socio-economic and enterprise hubs growth options presented in the Scoping Consultation. This option aims to locate homes close to existing jobs and potential new job locations.	Locating jobs close to homes would reduce commuting distance and therefore have a knock-on positive impact upon air quality. This may have a beneficial effect upon Habitats sites (and areas of functionally linked land) which may be sensitive to air pollution.
Option 4 – Sustainable Travel and Economy	Option 4 is a hybrid of Options 2 and 3. It aims to take the best aspects of each, to address the main aims of each individual option. The broader focus of this option allows the selection of the most suitable locations that fall within each individual option.	Locating growth close to sustainable modes of transport and places of work will reduce the need to travel and therefore improve local air quality. This may have a beneficial effect upon Habitats sites (and areas of functionally linked land) which may be sensitive to air pollution. This option in particular would rely on the release of Green Belt. Open green space provides alternative areas of recreational space (as an alternative to designated sites – such as Habitats sites). Where Green Belt is lost it is important to ensure that sufficient recreational resource is provided for the forecast level of growth over the plan period.
Option 5 – Dispersed	This option looks to disperse growth over a wider range of locations. This would result in the amount of growth in individual settlements being reduced, but with a higher number of settlements taking some growth.	Option 5 would not encourage sustainable transport in the same way as other options and would therefore potentially not deliver air quality benefits for Habitats sites to the same degree.
Issue S8: Small scale development outside of the chosen spatial growth option	This section of the consultation looks at whether thresholds / size limits for development outside the chosen spatial growth option would be appropriate.	All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land. The magnitude of impact will be dependent on the scale of growth.
Issue S9: Settlement boundaries and infill development	This element of the consultation looks at options to review settlement boundaries as part of the strategy.	All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land. The magnitude of impact will be dependent on the scale of growth.
Issue S10: Any other development strategy issues	This part of the consultation seeks any comments regarding the development distribution strategy for South Warwickshire.	All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land. The magnitude of impact will be dependent on the scale of growth.

Delivering South Warwickshire's Economic Needs

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue E1: Growing the South Warwickshire economy	This section of the consultation seeks comments on the use of the HEDNA evidence base or other methods to identify future levels of employment needs.	All growth in the Local Plan has the potential to have a likely significant effect upon Habitats sites (sites and pathways of impact are set out in the main HRA report) and areas of functionally linked land. The magnitude of impact will be dependent on the scale of growth.
Issue E2: A low carbon economy	This aspect of the consultation looks at whether to incorporate a policy which encourages businesses to be low carbon.	This policy is unlikely to affect Habitats sites.
Issue E3: Diversifying the Economy	This section looks at policy options around attracting a mix of employment to the area which will help to prevent out-commuting and retain residents within South Warwickshire	Reduction in commuting would have a positive impact upon air quality at Habitats sites and functionally linked habitat.
Issue E4: Sustaining a rural economy	This section looks at how policy wording may support rural businesses.	Reduction in commuting and promotion of sustainable transport options would have a positive impact upon air quality at Habitats sites and functionally linked habitat.
Issue E5: Lack of business accommodation	This element of the consultation looks at policy options to support the trend towards hybrid working and for lower density and much higher quality office space	This policy is unlikely to affect Habitats sites.
Issue E6: Protecting South Warwickshire's unique assets	This section looks at options to include a policy designed to protect South Warwickshire's unique economic assets and allow investment in these areas.	This policy is unlikely to affect Habitats sites.
Issue E7: Core Opportunity Area and Major Investment Sites	The option to include a Core Opportunity Area and Major Investment Sites would focus on attracting inward investment to drive the South Warwickshire economy. This aspect of the consultation looks which may be appropriate for South Warwickshire.	This policy is unlikely to affect Habitats sites.
Issue E8: Existing Employment Sites	This aspect of the consultation looks at options to carry forward existing employment allocations and a review of the Atherstone Airfield allocation.	This policy is unlikely to affect Habitats sites.
Issue E9: Supporting our changing town centres	This section looks at policy options around establishing a retail hierarchy.	This policy is unlikely to affect Habitats sites.
Issue E10: Tourism	This section looks at options to address tourism in part 2 of the Local Plan.	This policy is unlikely to affect Habitats sites.
Issue E11: Any other economic issues	This part of the consultation seeks any comments regarding other economic issues.	This policy is unlikely to affect Habitats sites.

Delivering homes that meet the needs of all our communities

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue H1: Providing the right number of homes	This section of the consultation looks at views on how the housing number is calculated.	Delivery of new homes has the potential to have likely significant effects upon Habitat sites (and areas of functionally linked land) through pathways of impact (see main HRA report). A higher number of homes would result in a greater scale of impact when compared to options with fewer homes. The HRA process will explore these impacts in more detail through an AA and, where necessary, look at potential options for mitigation. A higher number of homes delivered would have a greater impact upon Habitats sites in terms of potential hydrological, recreational and air quality pathways of impact at both Habitats sites and areas of functionally linked land.
Issue H2: Providing the right tenure and types of homes	This option looks at housing mix, including affordable housing numbers and housing for older people.	This policy is unlikely to affect Habitats sites.
Issue H3: Providing the right size of homes	This section explores the options around space standards.	This policy is unlikely to affect Habitats sites.
Issue H4: Accommodating housing needs arising from outside of South Warwickshire	This aspect of the consultation looks at the possibility of accommodating unmet need from outside South Warwickshire.	Delivery of new homes has the potential to have likely significant effects upon Habitat sites (and areas of functionally linked land) through pathways of impact (see main HRA report). A higher number of homes would result in a greater scale of impact when compared to options with fewer homes. The HRA process will explore these impacts in more detail through an AA and, where necessary, look at potential options for mitigation. A higher number of homes delivered would have a greater impact upon Habitats sites in terms of potential hydrological, recreational and air quality pathways of impact at both Habitats sites and areas of functionally linked land.
Issue H5: Providing custom and self-build housing plots	This element of the consultation identifies options in relation to custom and self-builds.	Delivery of new homes has the potential to have likely significant effects upon Habitat sites (and areas of functionally linked land) through pathways of impact (see main HRA report). A higher number of homes would result in a greater scale of impact when compared to options with fewer homes. The HRA process will explore these impacts in more detail through an AA and, where necessary, look at potential options for mitigation.
Issue H6: Pitches for gypsies, travellers and travelling showpeople – new sites and pitches, broad locations, criteria-based policy	This section of the consultation explores options for provision of gypsies, travellers and travelling showpeople pitches in terms of identifying sites.	Delivery of new homes, including those for gypsies, travellers and showpeople, has the potential to have likely significant effects upon Habitat sites (and areas of functionally linked land) through pathways of impact (see main HRA report). A higher number of homes would result in a greater scale of impact when compared to options with fewer homes. The HRA process will explore these impacts in more detail through an AA and, where necessary, look at potential options for mitigation.

A climate resilient and net zero carbon South Warwickshire

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue C1: Solar and wind power	This policy looks at options to identify and allocate land for wind or solar energy	Windfarms and solar energy have the potential to have LSEs on the qualifying features of Habitats sites for instance upon bird populations which may use functionally linked land within the plan area. This could be through creation of a collision risk, fragmentation of the landscape, creation of barriers to movement, loss of habitat and direct disturbance. The Royal Society for the Protection of Birds (RSPB) and Natural England promote a strategic approach to the consideration of suitable locations for wind energy taking into account constraints such as those upon Habitats sites. Natural England has published best practice advice on site selection which should be referred to in the plan making process ^{7,8} . The allocation of any sites promoted in the SWLP would need to be assessed within the HRA process.
Issue C2: Decentralised energy system	This section looks at options to decentralise energy systems.	This policy is unlikely to affect Habitats sites.
Issue C3: Carbon sequestration	This section asks looks at support for an off-setting approach and whether there are any projects or schemes within the plan area in which developers offset payments could be invested to secure emissions removal or reductions.	This policy is unlikely to affect Habitats sites.
Issue C4: New buildings	This section explores opportunities for net zero carbon standards for new buildings.	Inclusion of requirements such as tighter water efficiency standards will benefit water sensitive Habitats sites by reducing water demand and also reducing the volume of water requiring treatment at WwTWs.
Issue C5: Existing buildings	This section explores opportunities for retrofitting the existing building stock to minimise carbon emissions and achieve net zero carbon buildings.	Inclusion of requirements such as tighter water efficiency standards will benefit water sensitive Habitats sites by reducing water demand and also reducing the volume of water requiring treatment at WwTWs.
Issue C6: Whole life-cycle carbon emission assessments	Options explore policy wording for whole lifecycle carbon emission assessments.	This policy is unlikely to affect Habitats sites.
Issue C7: Adapting to higher temperatures	This section looks at policy options to respond to climate change through development design and in particular the ability of new development to adapt to higher and more extreme temperatures.	Incorporating high levels GI into development (such as green roofs, green corridors etc) will have a positive effect for Habitats sites which are sensitive to recreational pressures by providing an alternative for the local community. They also form part of the green infrastructure network linking habitats together and making them more resilient. It may be helpful to reference the national green infrastructure standards ⁹ and the revised Accessible Natural Greenspace Standards (ANGSt) requirements ¹⁰ within the SWLP. It

⁷ Natural England. 2021. Natural England's Approach to Offshore Wind. Natural England Technical Information Note, TIN181. Natural England. Available at: <http://publications.naturalengland.org.uk/publication/5400620875120640> [Date Accessed: 13/09/22]

⁸ Natural England. Making space for renewable energy: assessing on-shore wind energy development. Available at: <http://publications.naturalengland.org.uk/file/97013> [Date Accessed: 13/09/22]

⁹ Natural England. GI Framework Web Portal. <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>

¹⁰ The revised ANGSt are a component of the green infrastructure standards and include additional targets for greenspace provision.

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
		is also recommended that any GI complement future Local Nature Recovery Networks.
Issue C8: Adapting to flood and drought events	This option looks at the use of building design to sufficiently manage the use and storage of water through SuDS and reducing water consumption.	Water quality and water supply will be a key aspect of the HRA, in particular in relation to water dependent Habitats sites and functionally linked watercourses. It is strongly recommended that the SWLP incorporates strong policy wording around the protection of water quality to achieve Good Ecological Status and reduction of water use through adoption of water efficient measures. Inclusion of requirements such as tighter water efficiency standards will benefit water sensitive Habitats sites by reducing water demand and also reducing the volume of water requiring treatment at WwTWs. Use of SuDS will help to improve the quality of water discharged from development sites. Incorporation of features such as SuDS can contribute to GI if designed sensitively which can link to the wider biodiversity network and connectivity.
Issue C9: Mitigating biodiversity loss	This aspect of the consultation looks at how the loss of biodiversity can be mitigated.	Protection and enhancement of biodiversity across new development has a range of knock-on positive impacts for wildlife and multifunctional benefits across a range of other receptors (such as health and wellbeing, air quality, carbon capture etc). Protection of biodiversity assets will link habitats together and make them more resilient with positive effects for Habitats sites.
Issue C10: Climate change risk assessments	This part of the Issues and Options looks at the potential to require new development to undertake a Climate Change Risk Assessment.	This policy is unlikely to affect Habitats sites.
Issue C11: Water management	This section looks at policy options around water management.	Water quality and water supply will be a key aspect of the HRA, in particular in relation to water dependent Habitats sites and functionally linked watercourses. It is strongly recommended that the SWLP incorporates strong policy wording around the protection of water quality to achieve Good Ecological Status and reduction of water use through adoption of water efficient measures. It is recommended that the Council's ensure methods of protecting water quality and quantity be promoted in the SWLP through site selection and development of policy wording. These should be linked to the protection of functionally linked watercourses. This may be through incorporation of Sustainable Urban Draining System (SuDS) to protect water quality and promotion of water efficiency methods and reduce flood risk.
Issue C12: Flood risk	This section of the consultation invites comments on water management and flood risk	As above.

A well designed and beautiful South Warwickshire

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue D1: Strategic design principles	This section looks at which topics a strategic design policy may include.	Strategic design principles will provide a positive design framework in which development will be delivered and will be drawn upon to inform the HRA process. Consideration of climate change throughout the plan development could make reference to the benefits of climate change to ecological resilience and the multifunctional benefits that arise from climate change adaption for nature conservation.
Issue D2: Design codes and design guides	This policy looks at options to set consistent design principles and what scale these may be implemented.	Design guides should focus on HRA specific topics such as the provision of suitable greenspace to accommodate the needs of future growth and implementation of water efficient measures which would have positive impacts for water sensitive Habitats sites. There are number of frameworks which set out good design which could be adopted. The Wildlife Trusts (Gloucestershire Wildlife Trust) has developed a building with nature standard which is an accreditation scheme designed to enable developers to go beyond minimum standards ¹¹ .
Issue D3: Designing adaptable, diverse and flexible spaces	This section looks at options around appropriate levels of density.	This policy is unlikely to affect Habitats sites.
Issue D4: Safe and attractive streets and public spaces	This looks at options for inclusion of a policy on safe and attractive streets and spaces.	This policy is unlikely to affect Habitats sites.
Issue D5: Protecting and enhancing heritage assets	This element of the consultation looks at the option to include a specific policy in relation to heritage assets.	This policy would be a plan wide environmental safeguarding policy and would be unlikely to affect Habitats sites.

A healthy, safe and inclusive South Warwickshire

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue W1: Pollution	This section of the consultation looks at whether the Local Plan should include a policy on pollution.	It is recommended that strong policy wording around air, noise and light pollution be incorporated into the SWLP. This should focus on habitats and species as well as human receptors.
Issue W2: Health Impact Assessments for major development	This looks at the option to include requirements for HIA for major developments.	This policy is unlikely to affect Habitats sites.
Issue W3: Ensuring the built environment provides healthy and inclusive communities	This looks at the option to include policy wording on health.	This policy is unlikely to affect Habitats sites.
Issue W4: Public open space for leisure and informal recreation.	This section of the consultation looks at thresholds and location for open space.	Provision of open space of a scale and quality which is appropriate to accommodate the needs of growth set out in the plan will be critical for the HRA in terms of providing alternative recreational facilities for people to Habitats sites.

¹¹ Building with Nature. Available at: <https://www.buildingwithnature.org.uk/about> [Date Accessed: 13/09/22]

A well connected South Warwickshire

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue T1: 20 minute neighbourhoods	This section looks at the options to include policy requirements in relation to 20-minute neighbourhoods.	20-minute neighbourhoods encourage active and sustainable transport choices. This would have a knock-on positive impact on air quality and a benefit for Habitats sites.
Issue T2: Sustainable transport accessibility across South Warwickshire	This section looks at inclusion of policy wording to implement a hierarchy approach to transport infrastructure.	Promotion of active travel options would have a knock-on positive impact on air quality and a benefit for Habitats sites.
Issue T3: Road travel, employment and freight	This aspect of the consultation looks at inclusion of policy which focuses on more sustainable road-based infrastructure.	Promotion of more sustainable options for road and freight transport (such as use of electric or low and zero emission vehicles) would have a knock-on positive impact on air quality.
Issue T4: Smart cities	This section of the consultation invites suggestions for smart cities to future proof development.	This policy is unlikely to affect Habitats sites.

A biodiverse and environmentally resilient South Warwickshire

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue B1: Areas of restraint	This section looks at the options around designating areas of restraint in relation to protection of settlement character.	This policy is unlikely to affect Habitats sites.
Issue B2: Vale of Evesham Control Zone	This looks at the possibility of removing the Vale of Evesham Control Zone.	This policy is unlikely to affect Habitats sites.
Issue B3: Special landscape areas	This section looks at policy options around special landscape areas.	This policy would be a plan wide environmental safeguarding policy and would be unlikely to affect Habitats sites.
Issue B4: Protecting the Cotswold Area of Outstanding Natural Beauty and its surrounding areas	This section of the consultation looks at incorporating a buffer around the AONB.	This policy would be a plan wide environmental safeguarding policy and would be unlikely to affect Habitats sites.
Issue B5: Environmental net gain	This section of the consultation explores the incorporation of environmental net gain into the policy framework.	Inclusion of an environmental net gain policy would have a positive impact for Habitats sites and functionally linked land through multifunctional benefits such as improved air quality, improved water quality and connectivity between biodiversity assets.
Issue B6: Wildbelt designation	This section looks at the incorporation of a wildbelt designation.	Wildbelts will have a positive nature conservation effect with beneficial effects for Habitats sites and areas of functionally linked land. These features connect areas of designated habitat with areas of functionally linked land and provide multifunctional benefits such as improving air quality, water quality and connectivity.
Issue B7: Minerals	This section of the consultation looks at how reference should be made to the mineral planning framework.	This option is unlikely to affect Habitats sites.
Issue B8: Agricultural Land	This looks at options around protecting best and most versatile agricultural land.	This policy would be a plan wide environmental safeguarding policy and would be unlikely to affect Habitats sites.
Issue B9: Protecting biodiversity and geodiversity	This section looks at the option to include policies to safeguard sites of national importance, sites of local importance, and other non-designated sites known to make a positive contribution to biodiversity or geodiversity.	The Plan area partially falls within hydrological catchments associated with the Severn and the Humber estuaries. The Severn Estuary Special Area of Conservation and Ramsar Site is hydrologically linked to the designated site through the Warwickshire River Avon, and the Humber Estuary designations are linked

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
		through the rivers Anker, Tame and Blythe. As such there is potential for functionally linked watercourses in the Plan area. Water quality in these features should be protected and this should be reflected in policy wording depending on the outputs of the HRA.

Plan content

Issues and Options section	Summary of plan element	Key HRA related issues for consideration in HRA and plan-making process
Issue P1: Part 1 and Part 2 plans	This section of the consultation seeks opinions on the content of each part of the SWLP.	This option is unlikely to affect Habitats sites.
Issue P2: Equality and inclusivity	This section of the consultation asks if there are any areas where equality and inclusivity in planning needs further attention.	This option is unlikely to affect Habitats sites.

Ecological Services
Green Infrastructure
Landscape and Visual Impact Assessment
Landscape Character Assessment
Habitats Regulations Assessment
Strategic Environmental Assessment
Sustainability Appraisal



© Lepus Consulting Ltd
Eagle Tower, Montpellier Drive
Cheltenham GL50 1TA
T: 01242 525222
E: enquiries@lepusconsulting.com
W: www.lepusconsulting.com
CHELTENHAM



Lepus Consulting
Eagle Tower, Montpellier Drive
Cheltenham
Gloucestershire GL50 1TA

t: 01242 525222
w: www.lepusconsulting.com
e: enquiries@lepusconsulting.com