

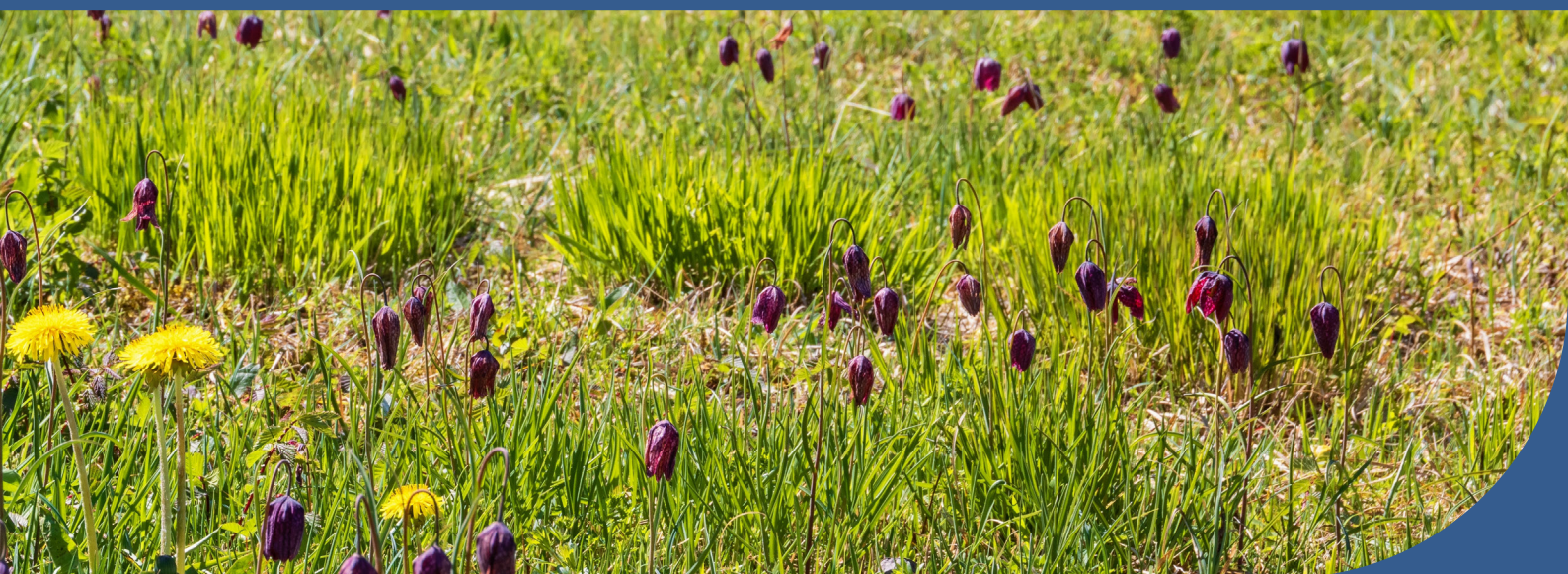
Swindon Borough Council

Swindon Borough Local Plan 2043

Regulation 19

Interim Habitats Regulations Assessment

September 2026



Swindon Borough Council Swindon Borough Local Plan 2025/26-42/43 (Regulation 19)

Interim Habitats Regulations Assessment

LC-1010	Document Control Box
Client	Swindon Borough Council
Report Title	Swindon Borough Local Plan 2025/26-42/43 Regulation 19 Interim Habitats Regulations Assessment
Status	Interim HRA
Filename	LC-1010_Swindon_Reg19_HRA_7_210926EG.docx
Date	September 2026
Author	EG
Reviewed	ND
Approved	ND

Front Cover: Flowering Snake's head fritillary a sunny spring day on a meadow

Contents

Executive Summary	v
1 Introduction	7
1.1 Purpose of this report	7
1.2 The Swindon Borough Local Plan	7
1.3 Habitats Regulations Assessment	8
1.4 Previous HRA work	9
2 Methodology	11
2.1 Overview	11
2.2 Stage 1: Screening for likely significant effects	12
2.3 Stage 2: Appropriate Assessment and Integrity Test	14
2.4 Dealing with uncertainty	14
2.5 The Precautionary Principle	14
3 Scoping of threats and pressures at European sites	15
3.1 Introduction	15
3.2 Identification of an HRA study area	15
3.3 Scoping impact pathways	15
3.4 Air quality	18
3.5 Water quality and water quantity	20
3.6 Recreational pressure	31
3.7 Urbanisation effects	37
3.8 European sites and threats and pressures	38
4 Screening of the Local Plan	40
4.1 Policy and allocations screening	40
4.2 Screening conclusion	41
5 Air quality Appropriate Assessment	42
5.1 Introduction	42
5.2 Air quality impacts	42
5.3 North Meadow and Clattinger Farm SAC baseline information	43
5.4 Appropriate Assessment	43
6 Water Quality / Quantity Appropriate Assessment	44
6.1 Introduction	44
6.2 Water Quality Appropriate Assessment	45
6.3 Mitigation	49
6.4 Water quality conclusion	50
6.5 Water quantity Appropriate Assessment	51
7 Recreational Pressure Appropriate Assessment	53
7.1 Introduction	53
7.2 North Meadow and Clattinger Farm SAC baseline information	53
7.3 Appropriate Assessment	54
7.4 Conclusion	55
8 Next steps	58
8.1 Conclusions	58
8.2 Next Steps	58

Appendix A: Plans and projects with potential in-combination effects

Appendix B: European site conservation objectives, threats and pressures

Appendix C: Screening evaluation of Local Plan policies

Appendix D: Screening evaluation of Local Plan allocations

Tables

Table 2.1: Screening evaluation categories	12
Table 3.1: Scoping of Atmospheric pollution impact pathways to European sites within 10km of the Local Plan boundary	20
Table 3.2: Review of hydrological impact pathways to European sites within the influence of the Local Plan	29
Table 3.3: Review of recreational impact pathways to European sites within the influence of the Local Plan	36
Table 3.4: Potential impact pathways from the Local Plan scoped in at each European site	38
Table 6.1: Water Quality headroom results	47
Table 6.2: Summary of water quality modelling results	50

Figures

Figure 1.1: Local Plan area	8
Figure 2.1: Stages in the Habitats Regulations Assessment process	11
Figure 3.1: Surface Water Management Catchments (SWMCs)	23
Figure 3.2: Water Resource Zone (WRZ)	26
Figure 3.3: River Lambourne Nutrient Neutrality Area	28
Figure 3.4: North Meadow & Clattinger Farm SAC zone of influence (relating to North Meadow component of the SAC only)	35
Figure 3.5: European sites for consideration in the HRA process	39
Figure 7.1: Site allocations in relation to the recreational ZOI of the North Meadow component of the North Meadow and Clattinger Farm SAC	57

Acronyms & Abbreviations

AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
ALS	Abstraction License Strategy
APIS	Air Pollution Information System
CJEU	Court of Justice of the European Union
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
FLL	Functionally Linked Land
HDV	Heavy Duty Vehicle
HRA	Habitats Regulations Assessment
IRZ	Impact Risk Zone
IUCN	International Union for the Conservation of Nature
JNCC	Joint Nature Conservation Committee
LPA	Local Planning Authority
LSE	Likely Significant Effect
NPPF	National Planning Policy Framework
NO_x	Nitrogen Oxides
NNR	National Nature Reserve
PRoW	Public Right of Way
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
STW	Sewage Treatment Works
SIP	Site Improvement Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WCS	Water Cycle Study
WFD	Water Framework Directive
WRMP	Water Resource Management Plan
WRZ	Water Resource Zone

Executive Summary

- E1. Lepus Consulting has been appointed, on behalf of Swindon Borough Council to undertake a Habitats Regulations Assessment (HRA) in compliance with the Habitats Regulations 2017 (as amended)¹ of the Swindon Borough Local Plan 2025/26-42/43 Regulation 19.
- E2. This report presents the findings of the HRA screening assessment and Appropriate Assessment (AA) undertaken alongside preparation of the Local Plan. The assessment has been informed by previous HRA work undertaken at earlier stages of plan preparation and by the latest available evidence relating to European sites and the potential impact pathways considered through the HRA.
- E3. The screening assessment considered each Local Plan policy and site allocation and identified where implementation of the Local Plan could result in Likely Significant Effects (LSEs) on European sites, either alone or in-combination with other plans and projects. In accordance with the Habitats Regulations, mitigation measures were not taken into account when determining whether LSEs could be excluded at the screening stage.
- E4. The screening assessment identified potential LSEs associated with air quality, water quality, water quantity and recreational pressure. These pathways were therefore taken forward for Appropriate Assessment in relation to the relevant European sites, comprising five Special Areas of Conservation (SAC):
- Cothill Fen SAC;
 - Kennet and Lambourn Floodplain SAC;
 - North Meadow and Clattinger Farm SAC;
 - Oxford Meadows SAC; and
 - River Lambourn SAC.
- E5. The Appropriate Assessment considered whether the Local Plan could adversely affect the integrity of these European sites, either alone or in-combination with other plans and projects, having regard to their qualifying features, conservation objectives and the environmental conditions and supporting processes necessary to maintain them. The assessment was informed by the Local Plan evidence base, including the Detailed Water Cycle Study, water quality modelling, strategic water resource planning evidence and the North Meadow and Clattinger Farm Interim Recreational Mitigation Strategy 2023–2028.
- E6. Air quality effects were screened in for North Meadow and Clattinger Farm SAC due to the sensitivity of the lowland hay meadow qualifying feature and the proximity of the North Meadow component to the A419. The final assessment of traffic-related air quality effects is to be informed by the Local Plan transport modelling and the resulting changes in traffic flows and emissions.
- E7. Subject to the completion of the air quality assessment and the implementation of the mitigation measures and safeguards identified within the Local Plan and this HRA, the

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> [Accessed: 14/12/22] 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: 05/06/26].

Appropriate Assessment concludes that the Swindon Borough Local Plan will not adversely affect the integrity of any European Site either alone or in-combination with other plans and projects.

- E8. Swindon Borough Council is the Competent Authority for the purposes of the Habitats Regulations and is responsible for undertaking the Integrity Test in light of the findings of this HRA. In reaching its decision, the Council must have regard to any representations made by Natural England in accordance with the Habitats Regulations.

1 Introduction

1.1 Purpose of this report

- 1.1.1 Lepus Consulting has prepared this report to inform the Habitats Regulations Assessment (HRA) of the Swindon Borough Local Plan 2025/26-42/43 at Regulation 19 on behalf of Swindon Borough Council (hereafter referred to as 'the Council').
- 1.1.2 Lepus Consulting has prepared this report to inform the Habitats Regulations Assessment (HRA) of the Draft Local Plan at Regulation 19 on behalf of Swindon Borough Council.
- 1.1.3 This HRA report has been prepared in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended)² and has been informed by the following guidance:
- Planning Practice Guidance: Appropriate Assessment³; and
 - The Habitat Regulations Assessment Handbook - David Tyldesley and Associates (referred to hereafter as the DTA Handbook), 2013 (in particular Part F: 'Practical Guidance for the Assessment of Plans under the Regulations').

1.2 The Swindon Borough Local Plan

- 1.2.1 Swindon Borough Council is preparing the Swindon Borough Local Plan 2025/26-42/43. The Local Plan will provide an up-to-date framework for managing development within the Borough, including a spatial strategy, policies and site allocations to guide future growth and development. Once adopted, the new Local Plan will replace the adopted Swindon Borough Local Plan 2026⁴.
- 1.2.2 The Council has been in the process of producing a Local Plan Review since 2015 and has undertaken multiple rounds of consultation⁵. The programme for the new Local Plan has since been amended in consideration of a move to a 'new plan' from the previous 'plan review' context. The new Local Plan will draw upon relevant feedback from the Local Plan Review and include an update to plan evidence, site information, other supporting documents and set out a wider vision for the plan area until 2055.
- 1.2.3 The new Local Plan is at Regulation 19 and comprises the spatial strategy and draft policies covering the period from 2025 to 2043. The area covered by the new Local Plan is illustrated in **Figure 1.1**.

² 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: 23/05/26] 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: 23/05/26].

³ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

⁴ Swindon Borough Council (2023) Swindon Local Plan 2026 and New Local Plan. Adopted March 2015. Available at: https://www.swindon.gov.uk/info/20113/local_plan_and_planning_policy/635/swindon_local_plan [Date Accessed: 23/05/26].

⁵ For an overview of previous phases of consultation on the Local Plan Review please refer to Swindon Borough Council's website. Available at: https://www.swindon.gov.uk/info/20113/local_plan_and_planning_policy/635/swindon_local_plan_2026_and_new_local_plan/2#:~:text=Once%20adopted%2C%20the%20New%20Local,guide%20decisions%20on%20planning%20applications [Date Accessed: 23/05/26].

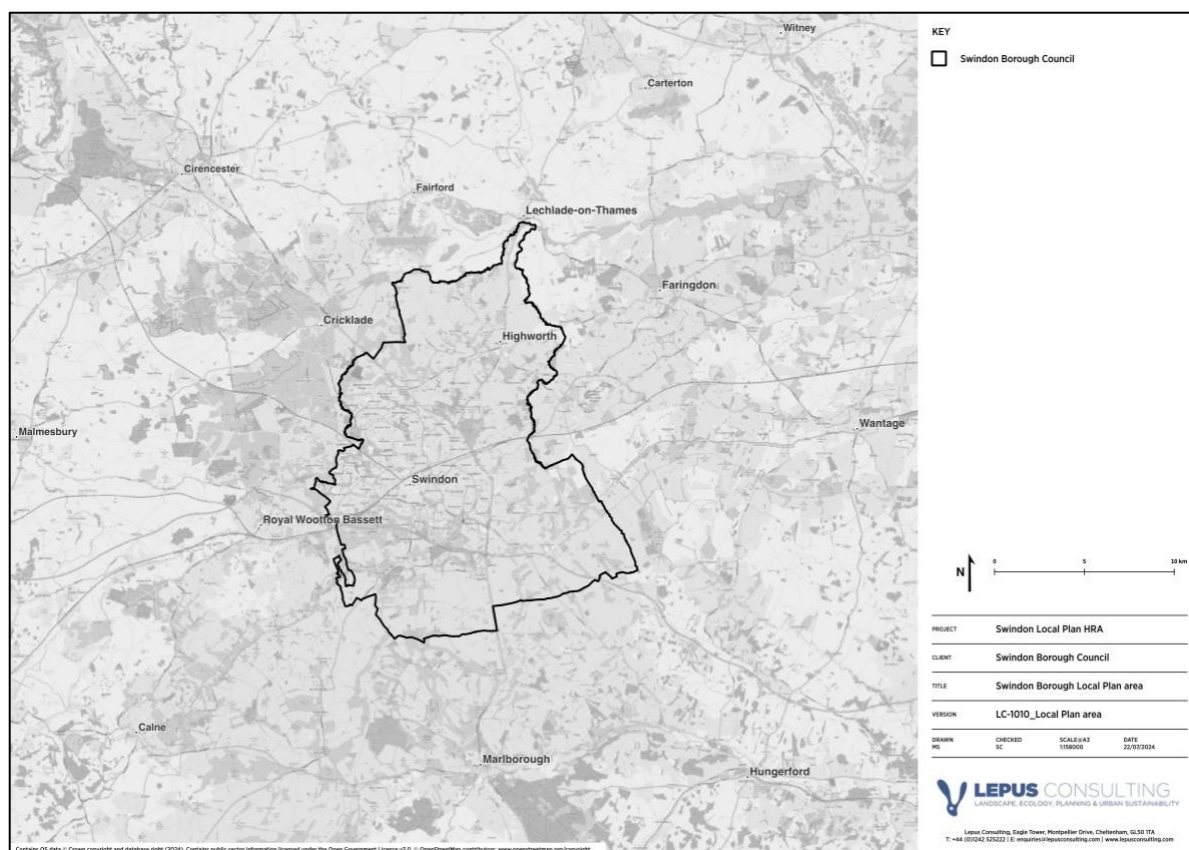


Figure 1.1: Local Plan area

1.3 Habitats Regulations Assessment

- 1.3.1 The application of Habitats Regulations Assessment (HRA) to land-use plans is a requirement of the Conservation of Habitats and Species Regulations 2017 (as amended)⁶ (the Habitats Regulations). HRA applies to plans and projects, including all Local Development Documents in England and Wales.
- 1.3.2 Where a plan is likely to have a significant effect on a European site (either alone, or in combination) and is not directly connected with, or necessary to, the management of the European site, the Habitats Regulations notes that the plan-making authority for that plan must, before the plan is given effect, make an Appropriate Assessment (AA) of the implications for the site in view of that site's conservation objectives. These tests are referred to collectively as an HRA.

⁶ Conservation of Habitats and Species Regulations 2017 SI No. 2017/1012, TSO (The Stationery Office), London, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

1.3.3 The Habitats Regulations provide a definition of a European site at Regulation 8. These sites 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. Ramsar Sites are designated under the 1971 Ramsar Convention. The Planning and Infrastructure Act 2025⁷ modified the Habitats Regulations such that Ramsar Sites are now treated in the same way as European Sites for certain purposes. In addition, policy in England and Wales notes that the following sites should also be given the same level of protection as a European site⁸:

- A potential SPA (pSPA);
- A possible/proposed SAC (pSAC); 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.

1.3.4 The Council, as the competent authority, is responsible for making the Integrity Test. The Integrity test asks whether the Local Plan will have an adverse effect upon the integrity of any European site (either alone, or in-combination) and will be undertaken in light of the conclusions of the HRA process having regard to representations made by Natural England (NE) under the provisions of the Habitats Regulations.

1.3.5 This HRA report has been prepared in line with Planning Practice Guidance for Appropriate Assessment⁹.

1.4 Previous HRA work

1.4.1 The Local Plan Review HRA Screening Assessment and Appropriate Assessment Report undertaken in 2019¹⁰ identified three European sites within a 15km radius of the Plan area potential effects, as listed below.

- North Meadow and Clattinger Farm SAC;
- Kennet and Lambourn Floodplain SAC; and
- River Lambourn SAC.

1.4.2 A Regulation 18 HRA¹¹ was undertaken in June 2025 to support the Local Plan 2025/26-42/43. This included a formal scoping and screening assessment, and a preliminary Appropriate Assessment (AA) of impacts on air quality, water quality and recreational pressure. The screening assessment identified the potential for Likely Significant Effects (LSEs) at the following European sites:

- Air quality LSEs - in-combination at North Meadow and Clattinger Farm SAC;

⁷ UK Parliament. (2025) Planning and Infrastructure Act 2025 (c. 34). London: The Stationery Office. Available at: <https://www.legislation.gov.uk/ukpga/2025/34> [Date Accessed: 18/06/26].

⁸ Ministry of Housing, Communities and Local Government (2025). National Planning Policy Framework. Para 194.

⁹ Ministry of Housing, Communities and Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

¹⁰ Land Use Consultants (2019) Swindon Borough Councils Local Plan Review 2036 Habitats Regulations Assessment – Screening Assessment and Appropriate Assessment Report.

¹¹ Lepus Consulting (2025) Swindon Borough Council Local Plan 2025/26-42/43 Regulation 18 Habitats Regulations Assessment (June 2025). Available at file:///Users/helena.shannon/Downloads/02.02_Habitats_Regulations_Assessment.pdf [Date accessed 11/06/26]

- Water quality and quantity LSEs – in-combination at Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, and the River Lambourn SAC; and
- Recreational LSEs – alone and in-combination at North Meadow and Clattinger Farm SAC.

1.4.3 The preliminary AA identified the following information to be collated to inform the AA at Regulation 19:

- An assessment of traffic modelling;
- An updated Water Cycle Study (WCS) and ongoing dialogue with Thames Water; and
- An updated interim recreational mitigation strategy for North Meadow and Clattinger Farm SAC.

2 Methodology

2.1 Overview

2.1.1 HRA is a rigorous precautionary process centred around the conservation objectives associated with the qualifying interests of any relevant European site. It is intended to ensure that European sites are protected from impacts that could adversely affect their integrity. A step-by-step guide to the methodology followed for the HRA, is illustrated in **Figure 2.1**. This HRA report provides output from Stage 1 and Stage 2 of the HRA process.

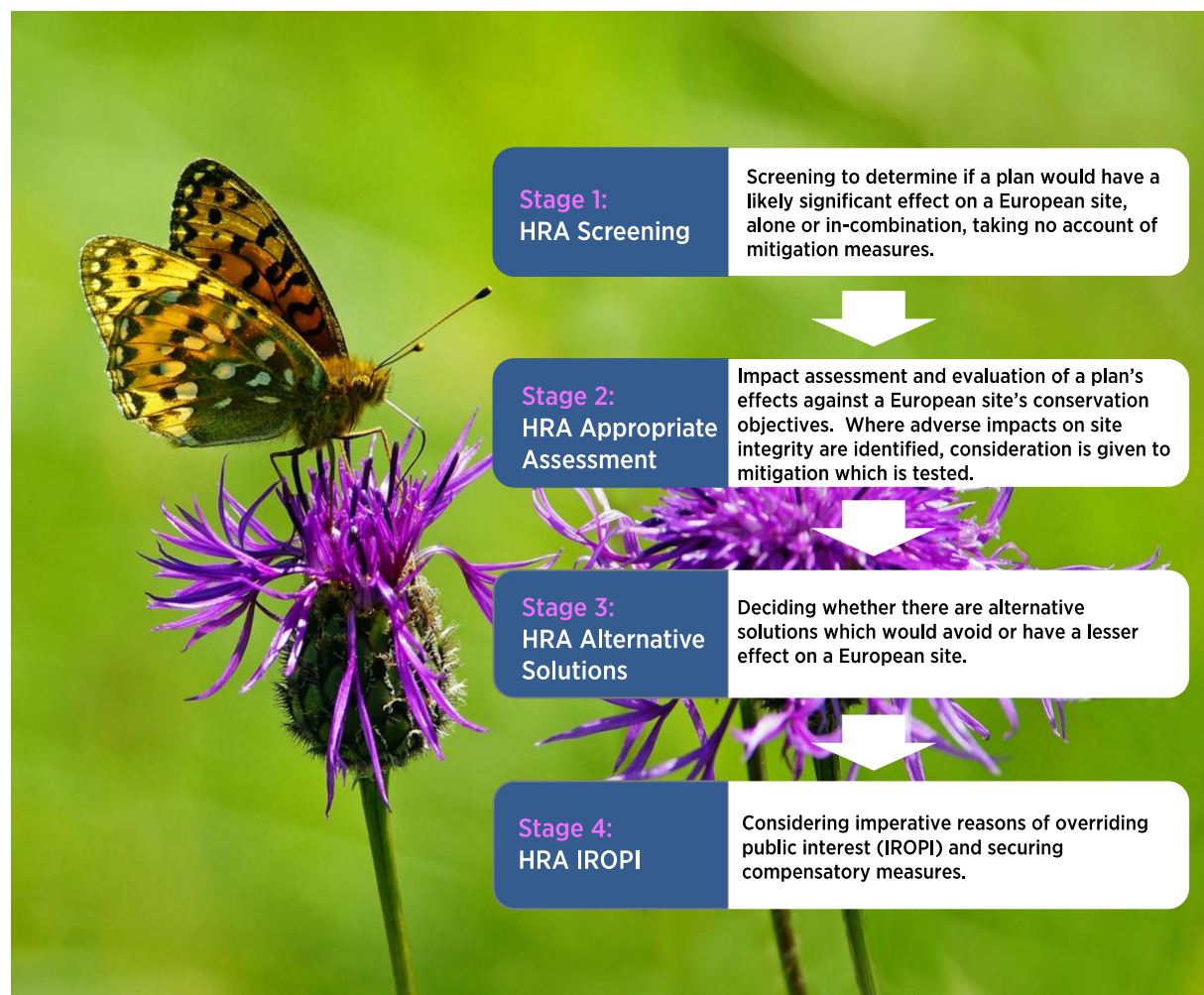


Figure 2.1: Stages in the Habitats Regulations Assessment process¹²

¹² Based on the now withdrawn DTA HRA Manual. Source: Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (October) (2018) edition UK: DTA Publications Limited.

2.2 Stage 1: Screening for likely significant effects

- 2.2.1 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 European 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 LSEs at a European site, either alone or in-combination with other plans or projects.
- 2.2.2 Where elements of the Local Plan will not result in an LSE on a European site (alone or in-combination) these are screened out and not considered in further detail in the process. Where LSEs are identified these elements of the Local Plan are screened in for further consideration in an AA. The pre-screening process uses a number of evaluation codes to summarise whether or not a plan component is likely to have LSEs alone or in-combination. These codes set out in **Table 2.1** and are used to inform the formal screening decision (Column 2).
- 2.2.3 Pre-screening the components of a plan at an early stage of the plan-making process helps to minimise or avoid LSEs upon any European site and improve the plan.

Table 2.1: Screening evaluation categories

Screening Evaluation Categories	Screen In / Screen Out
A. General statements of policy / general aspirations.	Screen Out
B. Policies listing general criteria for testing the acceptability / sustainability of proposals.	Screen Out
C. Proposal referred to but not proposed by the Plan.	Screen Out
D. General plan-wide environmental protection / designated site safeguarding / threshold policies.	Screen Out
E. Policies or proposals that steer change in such a way as to protect European sites from adverse effects.	Screen Out
F. Policies or proposals that cannot lead to development or other change.	Screen Out
G. Policies or proposals that could not have any conceivable or adverse effect on a site.	Screen Out
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).	Screen Out
I. Policies or proposals with a Likely Significant Effect on a site alone.	Screen In
J. Policies or proposals unlikely to have a significant effect alone.	Screen Out
K. Policies or proposals unlikely to have a significant effect either alone or in-combination.	Screen Out
L. Policies or proposals which might be likely to have a significant effect in-combination.	Screen In
M. Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a European site.	Screen In

- 2.2.4 The judgement by the European Court of Justice on the interpretation of the Habitats Directive in the case of People Over Wind and Sweetman vs Coillte Teoranta (Case C-323/17¹³) determined that mitigation measures are only permitted to be considered as part of the AA stage of the HRA process. The HRA screening process has therefore taken no account of incorporated mitigation or avoidance measures that are intended to avoid or reduce harmful effects on a European site when assessing the LSEs of the Local Plan on European sites. These are measures which, if removed (i.e. should they no longer be required for the benefit of a European site), would still allow the lawful and practical implementation of a plan.
- 2.2.5 Where screening concludes there are no LSEs from the Local Plan 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 European site. It may be that the Local Plan alone will not have a significant effect but could have a residual effect that may contribute to in-combination effects on a European site.
- 2.2.6 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 (**Appendix A**). These include those plans and projects that have the potential to increase development in the HRA study area as listed below. In addition, other plans and projects with the potential to increase traffic across the study area which may act in-combination with the Local Plan, such as transport, waste and mineral plans and projects, will also be taken into consideration. Plans which allocate water resources or are likely to influence water quality in the study area will also be considered.
- Cotswold District Council¹⁴
 - Vale of White Horse District Council¹⁵
 - West Berkshire Council¹⁶
 - Wiltshire Council¹⁷
- 2.2.7 The approach taken to the consideration of in-combination effects will be compliant with the Wealden Judgement¹⁸ which requires an in-combination approach that considers the development of neighbouring and nearby authorities when assessing likely significant effects.

¹³ InfoCuria (2018) Case C-323/17. Available at: <http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> [Date Accessed: 23/06/26].

¹⁴ Cotswold District Council. Local Plan update and supporting information. Available at: <https://www.cotswold.gov.uk/planning-and-building/planning-policy/local-plan-update-and-supporting-information/> [Date Accessed: 23/06/26].

¹⁵ Vale of White Horse District Council. Local Plan 2031. Available at: <https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/local-plan-2031/> [Accessed 22/06/26] and the South Oxfordshire and Vale of White Horse Joint Local Plan 2041. Available at: <https://theconversation.southandvale.gov.uk/jlp/> [Date Accessed: 23/05/26].

¹⁶ West Berkshire Council. The Local Plan Review (LPR). Available at: <https://www.westberks.gov.uk/article/40124/The-Local-Plan-Review-LPR> [Date Accessed: 23/06/26].

¹⁷ Wiltshire Council. Local Plan. Available at: <https://www.wiltshire.gov.uk/article/8029/Overview> [Date Accessed: 23/06/26].

¹⁸ Wealden District Council & Lewes District Council before Mr Justice Jay. Available at: <http://SLP.bailii.org/ew/cases/EWHC/Admin/2017/351.html> [Date Accessed: 23/06/26].

2.3 Stage 2: Appropriate Assessment and Integrity Test

- 2.3.1 Stage 2 of the HRA process comprises the AA and Integrity Test. The purpose of the AA is to undertake an assessment of the implications of a plan for a European site in light of its conservation objectives¹⁹.
- 2.3.2 As part of this process, plan makers should take account of the potential consequences of no action, the uncertainties inherent in scientific evaluation and they 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 European sites. Mitigation measures may take the form of policies within the Local Plan, 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.
- 2.3.3 The AA aims to present information in respect of all aspects of the Local Plan and ways in which it could, either alone or in-combination with other plans and projects, impact a European site. The Council (as the Competent Authority) must then ascertain, based on the findings of the AA, whether the Local Plan will adversely affect the integrity of a European site either alone or in-combination with other plans and projects. This is referred to as the Integrity Test.

2.4 Dealing with uncertainty

- 2.4.1 Uncertainty is an inherent characteristic of an HRA, and decisions can be made only on currently available and relevant information. This concept is reinforced in the 7th September 2004 'Waddenzee' ruling²⁰:
- 2.4.2 '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.'

2.5 The Precautionary Principle

- 2.5.1 The HRA process is characterised by the Precautionary Principle. This is described by the European Commission: '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'. The Precautionary Principle is embedded in the Integrity Test.

¹⁹ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

²⁰ EC Case C-127/02 Reference for a Preliminary Ruling 'Waddenzee' 7th September 2004 Advocate General's Opinion (para 107).

3 Scoping of threats and pressures at European sites

3.1 Introduction

- 3.1.1 An important initial stage of the screening process is gathering information on European sites which may be affected by the Local Plan. This is informally known as scoping and provides an understanding of potential impact pathways from the Local Plan and connections to European sites and their vulnerabilities. This information will be used to inform the formal screening assessment of the Local Plan provided in Chapter 4.

3.2 Identification of an HRA study area

- 3.2.1 Each European site has its own intrinsic qualities, besides the habitats or species for which it has been designated, that enables the site to support its particular ecosystems. 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). For example, sites can be affected by land use plans in a number of different ways, including the direct land take of new development, the type of use the land will be put to (for example, an extractive or noise-emitting use), or the pressure / threat a development generates (air pollution, water pollution or increased recreational pressure), and the resources used (for example water abstraction).
- 3.2.2 An intrinsic quality of any European site is its functionality at the landscape ecology scale. This refers to how the site interacts with its immediate surroundings as well as the wider area. This is particularly the case where there is potential for development resulting from a plan to generate water or air-borne pollutants, use water resources or otherwise affect water levels. Adverse effects may also occur via impacts to mobile species outside a designated site boundary, but which are qualifying features of the site. For example, there may be effects on protected birds, bats and fish which use habitat outside a designated site for foraging, feeding, roosting, breeding or other activities.
- 3.2.3 There is no guidance that defines the zone of influence (ZOI) or study area for inclusion in an HRA. Planning Practice Guidance for Appropriate Assessment²¹ indicates that: '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'.

3.3 Scoping impact pathways

- 3.3.1 Threats and pressures to which European sites are vulnerable have been identified through reference to data held by the JNCC and Natural England and through reference to Ramsar Information Sheets and Site Improvement Plans (SIPs). This information provides current and predicted issues at each European site and is summarised in **Appendix B**.

²¹ Ministry of Housing, Communities and Local Government (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

- 3.3.2 Supplementary advice notices prepared by Natural England often provide more recent information on threats and pressures upon European sites than SIPs and have therefore also been reviewed. A number of threats and pressures are unlikely to be exacerbated by the Local Plan and have therefore not been considered.
- 3.3.3 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.
- 3.3.4 Natural England conducts Whole Feature Assessments (WFA) which measure the condition of each notified feature across the whole of the SSSI. The conservation status of each notified feature highlights any areas which are particularly vulnerable to threats/pressures. Conservation status is defined as below:
- Favourable;
 - Unfavourable – recovering;
 - Unfavourable – no change; or
 - Unfavourable – declining.
- 3.3.5 Notified features classified as in an ‘Unfavourable – no change’ or ‘Unfavourable – declining’ condition may indicate that the SAC is in sub-optimal or poor ecological condition. It is important to remember that the SSSI may be in an unfavourable state due to the condition of features unrelated to its European designation. However, it is considered that the conservation status of SSSI features that overlap with European designated sites offer a useful indicator of habitat health at that location.
- 3.3.6 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.
- 3.3.7 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’²². 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 (FLL; defined in **paragraph 3.3.9**) and likely vulnerabilities to development proposed within the Local Plan.

²² 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: 29/05/26].

3.3.8 Based on previous HRA work undertaken to support the Local Plan (see **Section 1.4**), the following potential impact pathways are considered to be within the scope of influence of the Local Plan.

- **Air pollution:** Land use planning has the potential to increase atmospheric emissions of pollutants to the air. These can result in adverse effects at European sites such as eutrophication (nitrogen), acidification (nitrogen and Sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides)²³.
- **Water resources and water levels:** Urban development can change run off rates from urbanised areas to European 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. Changes in water quantity also has the potential to affect supporting habitat (land outside a designated site boundary).
- **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. Changes in water quality also has the potential to affect supporting habitat (land outside a designated site boundary).
- **Recreational pressure:** Increased development has the potential to increase recreational pressure upon European sites which are accessible to the public.
- **Urbanisation effects:** Urban development has the potential to result in disturbing activities (such as noise, lighting and visual disturbance). Disturbance effects may impact upon European sites themselves and also their qualifying features when outside a designated site boundary.

3.3.9 Land use planning also has the potential to result in impacts upon qualifying features of a European site when located outside a designation boundary, known as FLL. 'The term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a European 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 European site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status'²⁴. This HRA therefore also considers effects upon FLL or mobile species when outside a designated site boundary within the above topic assessments.

²³ APIS (2016) Ecosystem Services and air pollution impacts. Available at: <https://www.apis.ac.uk/search-ecosystem-impacts> [Date Accessed: 29/05/26].

²⁴ 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. Available at: <https://publications.naturalengland.org.uk/publication/6087702630891520> [Date Accessed: 20/06/26].

3.4 Air quality

- 3.4.1 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). As highlighted through the review of threats and pressures at European 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 European sites within the relevant SIPs and Supplementary Conservation Advice notes.
- 3.4.2 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.
- 3.4.3 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.
- 3.4.4 Natural England has developed a methodology for the assessment of traffic-related air quality impacts under the Habitats Regulations, which is relevant to the HRA of land use plans which may result in a change in traffic flows²⁵. For the assessment of air quality effects from local plans, Natural England has produced Standard Advice. This was issued for the Huntingdonshire Local Plan as part of the NE Regulation 18 consultation response (December 2025).
- 3.4.5 It comprises a number of discrete stages as follows which have been followed in the HRA process for the Local Plan. Stages 1 to 3 comprises the screening stage.
- Stage 1: Initial screening for credible risk of an effect
 - Stage 2: Detailed AQ modelling
 - Stage 3: Applying screening thresholds
 - Stage 4: Detailed assessment of ecological impacts
 - Stage 5: Appropriate Assessment for habitats sites
- 3.4.6 The Institute of Air Quality Management (IAQM)²⁶ and the Chartered Institute of Ecology and Environmental Management (CIEEM)²⁷ have also prepared advice on the assessment of air quality impacts at designated sites. Taken together this guidance sets a methodology and thresholds for screening of air quality LSEs at the HRA screening stage (Stage 1 of the HRA process) and further AA of air quality impacts where relevant (Stage 2 of the HRA process).
- 3.4.7 **Stage 1: Initial screening for credible risk of an effect**

²⁵ 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: 22/09/2026]

²⁶ IAQM (2019) A guide to the assessment of air quality impacts on designated nature conservation sites – version 1.0. Available at: <https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2019.pdf>. [Date accessed: 22/09/2026]

²⁷ CIEEM (2021) Advisory Note: Ecological Assessment of Air Quality Impacts. Available at: <https://cieem.net/wp-content/uploads/2020/12/Air-Quality-advice-note.pdf>. [Date accessed: 22/09/2026]

- 3.4.8 Stage 1 of NE's Standard Advice requires an initial screening assessment to determine if there is a credible risk of an air quality effect from the Local Plan. This should take account of whether significant emissions can reach a European site using distance criteria and also whether the qualifying habitats or supporting habitat of qualifying species associated with a European site are sensitive to air quality impacts.
- 3.4.9 The Local Plan will trigger development and therefore increase traffic-related emissions. Air quality impacts have been shown to typically affect European sites within 10km of a Plan boundary²⁸. For the purpose of decision-making, unless local circumstances support a wider zone, JNCC guidance notes that plan HRA should take account of the potential effects of traffic emissions on European sites located within 10km of the plan boundary. This zone is based on professional judgment recognising that the effects of growth from development beyond 10km will have been accounted for in the Nitrogen Futures modelling work business as usual scenario²⁹.
- 3.4.10 This 10km distance threshold can be a useful guide to identify the broad areas that may be impacted by air quality. However, it is noted that consideration should also be given to larger residential or commercial allocations and their wider potential for air quality impacts, in the context of the local and regional road network, including key commuting areas.
- 3.4.11 Data obtained from the Office for National Statistics (ONS) in 2021 highlights the most common destinations for journeys to work arising from, and finishing in, the Plan area³⁰. The most common commuting destinations/origins are Peterborough (which lies just north of the Plan area), Fenland (which is located northeast of the Plan area) and South Cambridgeshire (which is located southeast of the Plan area). Other common commuting destinations/origins include the neighbouring areas of Bedford and East Cambridgeshire. This commuting pattern is reflected in the Economic and Employment Needs Assessment prepared in support of the Local Plan³¹.
- 3.4.12 European sites beyond 10km of the Plan area but within these key commuting areas which are sensitive to air quality effects are also considered within this HRA where they are linked to the Plan area via key strategic road links. These are roads which provide a clear route linking residential and employment areas within the Plan area.
- 3.4.13 Taking this information into consideration, a 10km buffer from the Plan area is considered precautionary, as it encompasses both the key commuting areas and strategic road links that connect to the Plan area.
- 3.4.14 It is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance^{32,33,34}. Baseline mapping data has been used to determine the proximity of European sites, and their qualifying features, to roads (within 200m) which may result in an exceedance of NE's screening thresholds.

²⁸ Chapman, C., and Kite, B. (2021) Guidance on Decision-making Thresholds for Air Pollution.

²⁹ Chapman, C., and Kite, B. (2021) Main Report Guidance on Decision-making Thresholds for Air Pollution.

³⁰ ONS (2023) Visualising people flows. Available at: <https://www.ons.gov.uk/visualisations/censusorigindestination/#workplace> [Date accessed: 02/06/26]

³¹ Volterra (2025) Economic and Employment Needs Assessment.

³² 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.

³³ Natural England (2018) Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NEA001).

³⁴ Bignal, K., Ashmore, M. & Power, S. (2004) The ecological effects of diffuse air pollution from road transport. English Nature Research Report No.580, Peterborough.

- 3.4.15 The UK Air Pollution Information System (APIS) provides information on all European 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 impact pathways from the Local Plan to any European site, through a change in atmospheric emissions.
- 3.4.16 The results indicate that nine European sites within 10km of the Plan area (which corresponds to the key commuting area) are sensitive to air quality impacts.
- 3.4.17 Of the nine European sites deemed sensitive to air quality impacts, Barnack Hills & Holes SAC, Eversden & Wimpole Woods SAC, Fenland SAC³⁵ and Woodwalton Fen Ramsar, are not located within 200m of a strategic road link. Therefore, these four sites can be scoped out of the HRA process in terms of air quality impacts. A review of Natural England data for Orton Pit SAC indicates that it is not sensitive to air quality impacts and therefore can also be scoped out of the HRA process. The remaining four European sites were scoped into the HRA screening process based on air quality impact pathways (**Table 3.1**).

Table 3.1: Scoping of Atmospheric pollution impact pathways to European sites within 10km of the Local Plan boundary

European sites with the influence of the Local Plan area	Is the European 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 and motorway) located within 200m of the European site?	Will the European site be scoped in for further assessment in the HRA process?
Hackpen Hill SAC	Yes	No	No
Kennet and Lambourn Floodplain SAC	No	No	No
North Meadow and Clattinger Farm SAC	Yes	Yes (A419)	Yes
River Lambourn SAC	No	No	No

3.5 Water quality and water quantity

- 3.5.1 Urban development coming forward through the Local Plan has the ability to affect water dependent European sites through a number of impacts as listed below. These impacts have the potential to change the water balance (levels) and quality of water entering European sites:
- Change in surface permeability and run off rates;
 - Increased water demand to supply new homes and businesses;
 - Reduce quality of surface water run off; and
 - Increased effluent discharge for treatment.
- 3.5.2 Features for which a European site is designated are often sensitive to changes in water balances and water quality. Therefore, urbanisation affecting drainage streams which flow through a European site has the potential to adversely affect the features for which it is designated.

³⁵ Fenland SAC is split across three components which lie 27 miles apart. The component of the SAC within 10km of the Plan area is underpinned by Woodwalton Fen SSSI.

- 3.5.3 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 element assessed must be at good status or better. If one element is below its threshold for good status, then the status for the whole water body is classed below good. Surface water bodies can be classed as high, good, moderate, poor or bad status.
- 3.5.4 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)³⁶.
- 3.5.5 There are no European sites located within the Plan area. European sites located outside the Plan area can also be affected by changes in water supply and quality where they are hydrologically linked to development.
- 3.5.6 The Plan area is predominantly located within the Thames River Basin District. Surface Water Management Plans (SWMPs) outline the preferred surface water management strategy alongside establishing a long-term action plan for surface water. The Plan area lies within the 'Kennet and Trib' and 'Gloucestershire and the Vale' surface water management catchment (SWMC; see **Figure 3.1**).
- 3.5.7 The River Thames flows along the Plan area's northern boundary between Cricklade and Lechlade, and a number of local tributaries, including the Share Ditch and the Bydemill Brook, flow north across the rural northern part of the Borough into the main Thames channel. A number of tributaries feed into the River Thames from the Plan area. These include the River Ray, which drains the western section of the Plan area running along the western boundary rising at Wroughton and fed by tributaries including the Lydiard Brook and the Haydon Wick Brook. The River Cole runs through the eastern section of the Plan area and along its eastern boundary and is fed by tributaries including the Lenta Brook and the South Marston Brook. The southern section of the Plan area is drained by the upper reaches of the River Kennet, this area feeds ordinary watercourses (the Og, Aldbourne and Lambourn) which drain south towards the Kennet at Marlborough, or further east.
- 3.5.8 A small proportion of the western corner of the Plan area is located within the Severn River Basin District, and within the Avon Bristol and Somerset North Streams SWMC (**Figure 3.1**). There are no waterbodies associated with this RBD within this small area of the Plan area.
- 3.5.9 There are seven Sewage Treatment Works (STWs) within Swindon. Currently, Swindon, Blunsdon, Wanborough and Highworth STWs do not exceed their current permitted Dry Weather Flow (DWF) capacity, however Thames Water is planning to upgrade these STWs as future capacity is likely to be exceeded.

³⁶ 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: 29/05/26].

- 3.5.10 The Thames River Basin Management Plan³⁷ (RBMP) provides a framework for protecting and enhancing the benefits provided by the water environment (**Appendix A**). To achieve this, and because water and land resources are closely linked, it also informs decisions on land-use planning. RBMPs provide 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.

³⁷ Environment Agency (2022) Thames river basin district river basin management plan: updated 2022. Available at: <https://www.gov.uk/guidance/thames-river-basin-district-river-basin-management-plan-updated-2022> [Date Accessed: 29/05/26].

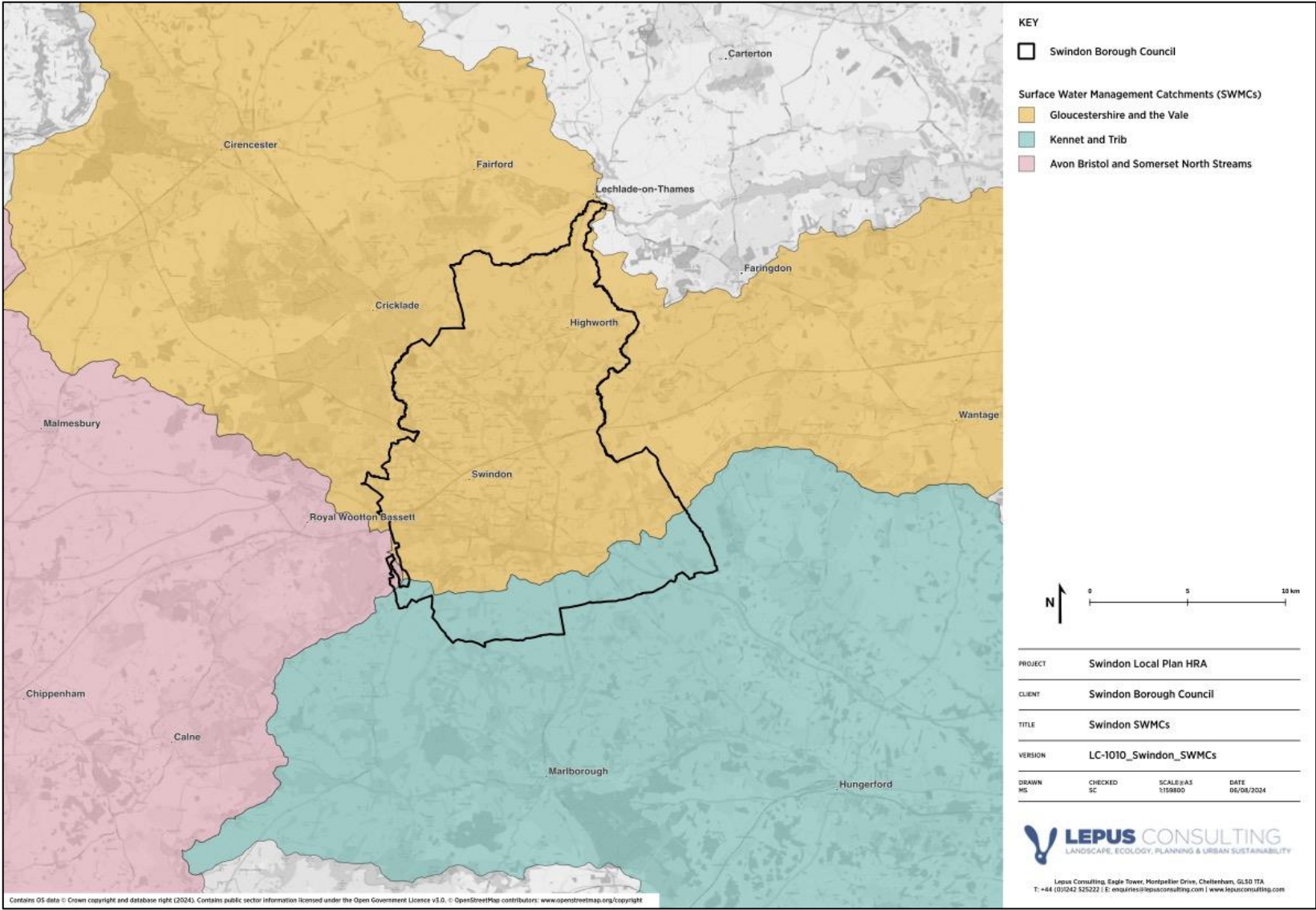


Figure 3.1: Surface Water Management Catchments (SWMCs)

- 3.5.11 For the purposes of water resource planning, the Plan area is divided into Water Resource Zones (WRZs). WRZs are defined by the EA as the 'largest possible zone in which customers share the same risk of a resource shortfall'³⁸. These WRZs have been amalgamated into larger sub-regional supply areas. The Plan area is located within the Swindon and Oxfordshire WRZ (see **Figure 3.2**). Hydrologically sensitive European sites³⁹ located within this WRZ are listed below. These European sites are dependent on hydrological regimes.
- Cothill Fen SAC;
 - Kennet and Lambourn Floodplain SAC;
 - North Meadow and Clattinger Farm SAC; and
 - Oxford Meadows SAC.
- 3.5.12 Thames Water is the statutory water supplier and sewerage undertaker for Swindon⁴⁰. The role of the sewerage undertaker includes the collection and treatment of wastewater from domestic and commercial premises, and in some areas, it also includes the drainage of surface water from building curtilages to combined or surface water sewers. 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. WRMPs are linked to Drought Plans which detail the steps that would be taken to ensure supplies can be maintained whilst minimising the impacts to rivers and the environment during drought events (see more details in **Appendix A**).
- 3.5.13 The Thames Water WRMP⁴¹ estimates future water demands and plans how these levels will be achieved. The WRMP outline a number of demand management measures that need to be taken to ensure continued sustainable sources of water supply. The Thames WRMP identified that future water demand and supply will need to be balanced through reduced water usage (demand management), reduced leakage, and the development of new South East Strategic Reservoir Options (SESROs) and water transfers.

³⁸ Severn Trent. A1 Water Resource Zones. Available at: https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.severntrent.com/content/dam/stw/ST_Corporate/About_us/Docs/Appendix-A-How-much-water-do-we-have-available.pdf&ved=2ahUKEwiY8ei5gu2GAXkZ0EAHUC5D_kQFn0ECB0QAQ&usg=AOvVaw3uQ8-LrFuwwJ2kHu2ixaCT [Date Accessed: 29/05/26].

³⁹ As determined through a review of Natural England Conservation Advice for each site and Site Improvement Plans.

⁴⁰ Stantec (2025) Water Cycle Study. Scoping Report. Swindon Borough Council.

⁴¹ Thames Water (April 2020) Shape your future: Our Water Resources Management Plan 2020-2100. Available at: <https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/water-resources-management-plan-overview.pdf> [Date Accessed: 29/05/26].

- 3.5.14 Catchment Abstraction Management Plans (CAMS) are six-year strategies developed by the Environment Agency (EA) for managing water resources at the local level, produced for every river catchment area in England and Wales. The Plan area lies within the Wey CAMS. Through the CAMS process the EA prepares an Abstraction Licensing Strategy (ALS) to manage water resources and contribute to implementation of the WFD. ALS feed into the WRMPs in terms of determining and managing current and future pressures on water resources and how this will be managed by the relevant water companies. Swindon lies within Kennet and Vale of White Horse ALS area, and a minor part of the River Thames that flows through the Borough lies within the Thames ALS. The watercourses within these ALS areas are shown to have restricted water available for licensing during the high flow period⁴².
- 3.5.15 The majority of drinking water in Swindon is supplied by Thames Water from Farmoor Reservoir to the west of Oxford, which takes water from the adjacent River Thames. This source is locally supplemented by groundwater abstractions, such as those at Moulsoford, South Stoke and Latton. To the south of Swindon there is also an abstraction at Axford from the chalk aquifer⁴³. These abstractions are all from within the Thames Corridor ALS area and the Kennet and Vale of White Horse ALS.

⁴² Environment Agency. ALS CAMS Process. Available at: <https://www.gov.uk/government/collections/water-abstraction-licensing-strategies-cams-process> [Date Accessed: 29/05/26].

⁴³ Stantec (2025) Water Cycle Study. Scoping Report. Swindon Borough Council.

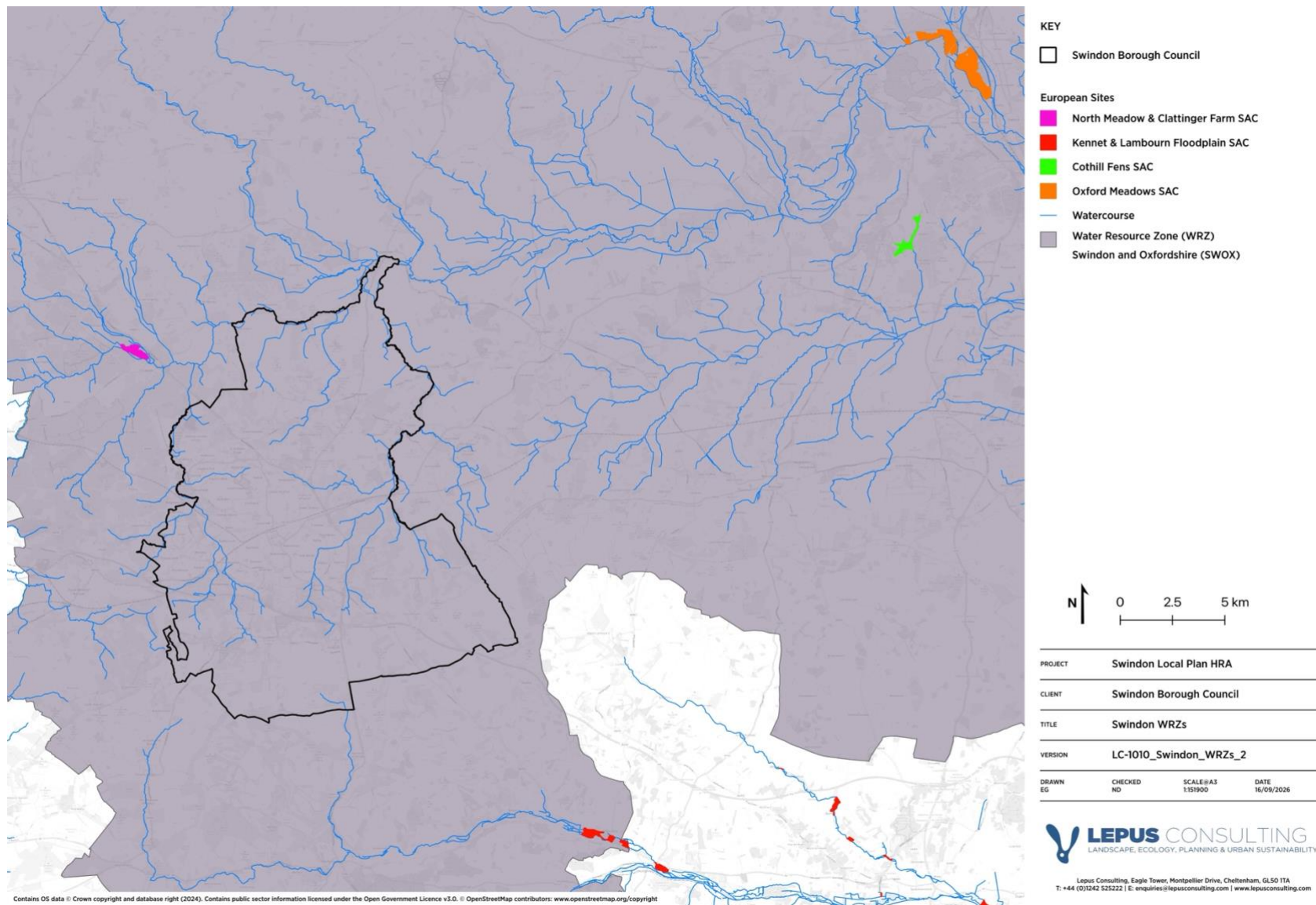


Figure 3.2: Water Resource Zone (WRZ)

- 3.5.16 A Scoping Water Cycle Study (WCS) was prepared in support of the Local Plan Review in 2025⁴⁴. Its outputs form part of the evidence base to determine the most appropriate options for development within the Borough.
- 3.5.17 On 16th March 2022 Natural England wrote to affected LPAs regarding the sensitivity of the River Lambourn SAC to significant levels of phosphorus pollution. The south-eastern corner of the Plan area lies within the nutrient neutrality catchment of the River Lambourn SAC (see **Figure 3.3**)⁴⁵. The SAC is designated for the water course of plain to montane levels with Water-crowfoots (*R. fluitantis*), Brook Lamprey (*Lampetra planeri*) and Bullhead (*Cottus gobio*). The SAC is underpinned by the River Lambourn SSSI which comprises three units; Lynch Wood to Maidencourt Farm, Maidencourt Farm to Oxford Road and Oxford Road to River Kennet. Water quality measurements show that phosphorus concentrations are exceeding the targets for all units and the SSSI is therefore in an unfavourable condition for the river and stream features of the SSSI.
- 3.5.18 Excessive nutrient input to freshwater environments can lead to eutrophication which can cause competitive interactions between high plant species and between higher plant species and algae, which can result in a dominance in attached forms of algae and loss of characteristic plant species⁴⁶. This growth can have adverse effects on the species and plant communities through a variety of mechanisms including shading, smothering and anoxia, leading to a dominance of plant species better able to deal with these conditions, with negative competitive effects on others. This can lead to a significant negative shift in habitat quality and structure which in turn affects other species communities.
- 3.5.19 In order to address these adverse impacts, development coming forward within the River Lambourn SSSI nutrient neutrality catchment area must not add to nutrient levels at the SAC. The impacts of Local Plan growth upon nutrient levels will be considered further in the HRA process.

⁴⁴ Stantec (2025) Water Cycle Study. Scoping Report. Swindon Borough Council.

⁴⁵ WOOD, A., WAKE, H. and MCKENDRICK-SMITH, K. (2022) *River Lambourn Special Area of Conservation – Evidence Pack*. Natural England Technical Information Note. TIN199 Natural England. Available at: <https://publications.naturalengland.org.uk/file/4917938338660352> [Date Accessed: 29/05/26].

⁴⁶ WOOD, A., WAKE, H. and MCKENDRICK-SMITH, K. (2022) *River Lambourn Special Area of Conservation – Evidence Pack*. Natural England Technical Information Note. TIN199 Natural England. Available at: <https://publications.naturalengland.org.uk/file/4917938338660352> [Date Accessed: 29/05/26].

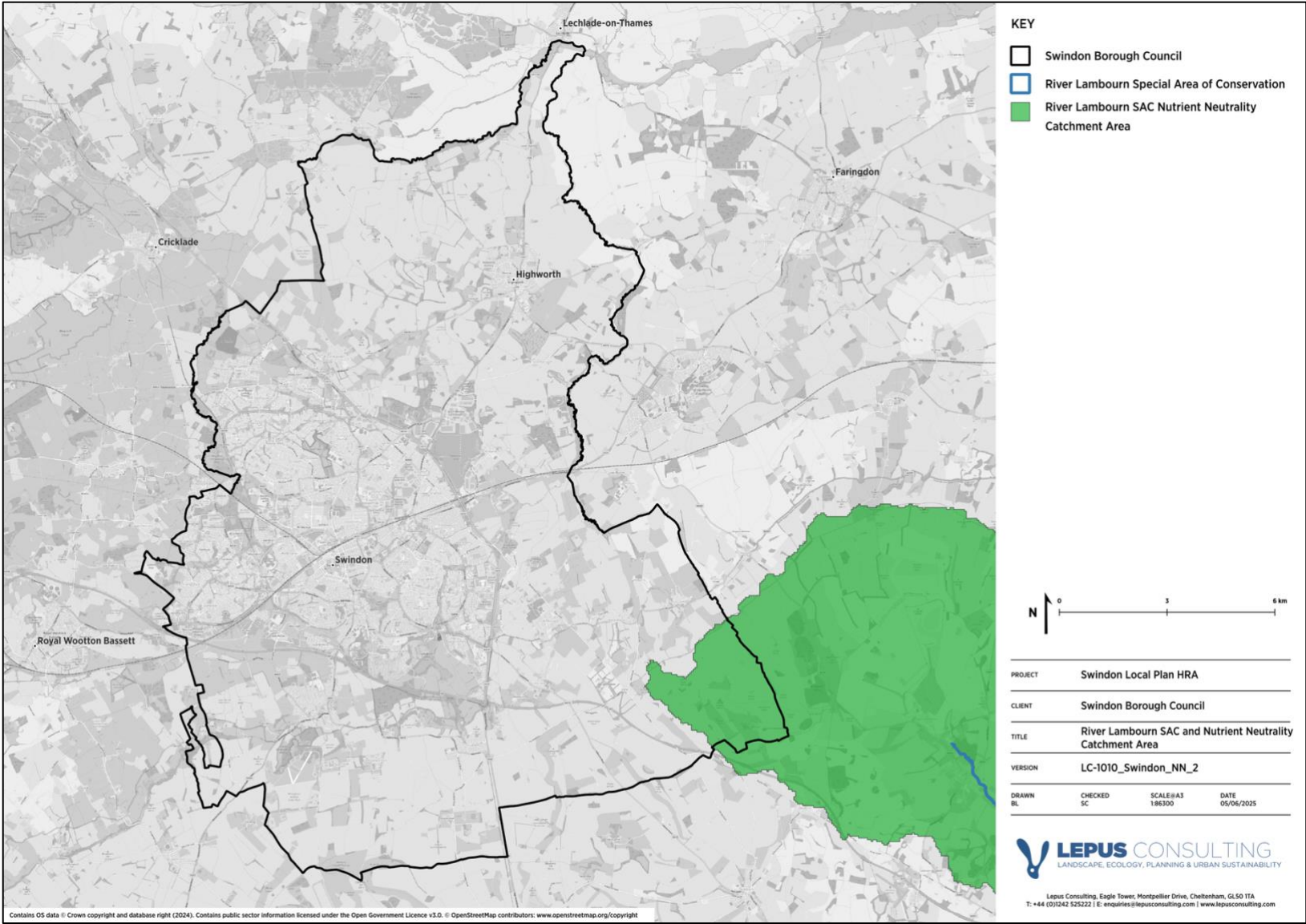


Figure 3.3: River Lambourne Nutrient Neutrality Area

- 3.5.20 As noted at **paragraph 3.2.2**, land use planning has the potential to result in impacts upon qualifying features (for instance species of fish or birds) when located outside a designation boundary, known as functionally linked habitat.
- 3.5.21 The tests set out under Article 105 of the Habitats Regulations need to be applied in respect of plans which may significantly affect functionally linked land that plays an important role in contributing to the favourable conservation status of the relevant species for which a European site is designated.
- 3.5.22 As noted in **paragraph 3.5.6** and **3.5.8**, the Plan area predominantly falls within hydrological catchments associated with the Thames Estuary and to a lesser extent the Severn Estuary. A review of mapping data indicates that there are no waterbodies associated with this Severn RBD within this small part of the Plan area and therefore direct hydrological links to the Severn Estuary SPA and Ramsar are unlikely.
- 3.5.23 Taking into consideration potential changes in water levels (through abstraction for water supply) and water quality (through surface water run-off and discharges from STWs), European sites were screened for potential hydrological impact pathways. **Table 3.2** indicates which European sites will be scoped into the screening assessment for further consideration in the HRA process in terms of hydrological impact pathways.

Table 3.2: Review of hydrological impact pathways to European sites within the influence of the Local Plan

European sites with hydrological links to the Plan area	Sensitive to hydrological impacts (water quality and water quantity)?	Potential for water quality LSEs	Potential for water quantity LSEs	Will the European site be scoped in for further assessment in the HRA process?
Cothill Fen SAC	Yes	Cothill Fen SAC is located approx. 23km to the east of the Plan area. The SAC is not linked to the Plan area by surface water features. Therefore, water quality impacts as a result of the Local Plan are unlikely.	Cothill Fen SAC is designated for its calcium-rich springwater-fed fens. The SIP indicates that there is concern that fen areas of Cothill Fen SAC may be becoming drier, and that this may be affecting populations of rare fen plants and invertebrates ⁴⁷ . It is located within the Swindon and Oxfordshire (SWOX) WRZ and therefore there is potential for water quantity impacts from the Local Plan.	Yes

⁴⁷ Natural England (2014) Cothill Fens SAC SIP. Available at: <https://publications.naturalengland.org.uk/publication/6482436405854208> [Date Accessed: 29/05/26].

European sites with hydrological links to the Plan area	Sensitive to hydrological impacts (water quality and water quantity)?	Potential for water quality LSEs	Potential for water quantity LSEs	Will the European site be scoped in for further assessment in the HRA process?
Kennet and Lambourn Floodplain SAC	Yes	Kennet and Lambourn Floodplain SAC is located 10km to the south west of the Plan area. The SAC is downstream of the Plan area. Therefore, water quality impacts as a result of the Local Plan are likely and will be considered further in the HRA.	The qualifying feature of the Kennet and Lambourn Floodplain SAC (Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>)) is vulnerable to hydrological changes in terms of water levels and drought. The SAC is located within the SWOX WRZ and therefore there is potential for water quantity impacts from the Local Plan.	Yes
North Meadow and Clattinger Farm SAC	Yes	North Meadow and Clattinger Farm SAC is located approx. 3.1km to the west of the Plan area at its closest. The SAC is located upstream of the Plan area. Therefore, water quality impacts as a result of the Local Plan are unlikely.	North Meadow and Clattinger Farm SAC is located within the SWOX WRZ and therefore there is potential for water quantity impacts from the Local Plan.	Yes
Oxford Meadows SAC	Yes	Oxford Meadows SAC is located approx. 26km to the north east of the Plan area. The SAC is downstream of the Plan area connected via the River Thames. Therefore, water quality impacts as a result of the Local Plan are likely and will be considered further in the HRA.	Oxford Meadows SAC is located within the SWOX WRZ. Creeping marshwort (<i>Apium repens</i>) is particularly sensitive to hydrological changes. Therefore, there is potential for water quantity impacts from the Local Plan at this SAC.	Yes
River Lambourn SAC	Yes	The River Lambourn SAC is located approx. 4.5km to the south east of the Plan area. The Local Plan is located partly within the nutrient neutrality catchment of the River Lambourn SAC. Any change in nutrient levels due to new development set out in the Local Plan has the potential to have adverse effects on the qualifying features of the SAC and achievement of its conservation objectives. Therefore, water quality pathways of impact will be considered further in the HRA process.	The River Lambourn SAC is not located within the SWOX WRZ. Therefore, water quantity impacts from the Local Plan are unlikely and it will not be considered further in the HRA.	Yes

European sites with hydrological links to the Plan area	Sensitive to hydrological impacts (water quality and water quantity)?	Potential for water quality LSEs	Potential for water quantity LSEs	Will the European site be scoped in for further assessment in the HRA process?
Severn Estuary SPA and Ramsar	Yes	The Plan area predominantly falls within hydrological catchments associated with the Thames Estuary and to a lesser extent the Severn Estuary. A review of mapping data indicates that there are no waterbodies associated with this Severn RBD within this small area of the Plan area and therefore direct hydrological links to the Severn Estuary SPA and Ramsar are unlikely.	The Severn Estuary SPA and Ramsar are not located within the SWOX WRZ. Therefore, water quantity impacts from the Local Plan are unlikely and it will not be considered further in the HRA.	Yes

3.6 Recreational pressure

- 3.6.1 Increased recreational pressure at European sites can result in damage to habitats through erosion and compaction, disturbance 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.
- 3.6.2 A common approach taken across the UK to address recreational impacts at European sites is to establish a 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).
- 3.6.3 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.
- 3.6.4 The recreational draw of a European site depends on a number of factors. These include the extent and range of facilities provided (in particular parking), accessibility both within the European site and links to the wider area, incorporation of a European site as part of a wider designation, such as a National Park, and the site's promotion. A review of recreational impact assessments undertaken for European sites across the UK indicates visitors typically live within 4.2 km (overall median value) of nature conservation sites and that the majority (75%) live within 12.6 km⁴⁸. However, this review recognises that some visitors are prepared to travel longer distances to visit particular sites, for instance coastal and wetland sites.

⁴⁸ Weitowitz, D, C. Panter, C. Hoskin, R. and Liley, D. (October 2019) The effect of urban development on visitor numbers to nearby protected nature conservation sites. Journal of Urban Ecology, Volume 5, Issue 1.

- 3.6.5 As such, a precautionary distance of 15km has been applied to the scoping of European sites which may be sensitive to potential recreational impact pathways (see **Table 3.3**). In addition, European site-specific buffer distances have been applied to determine potential pathways of recreational effects from the Local Plan where available.
- 3.6.6 North Meadow and Clattinger Farm SAC is designated for the presence of lowland hay meadows (National Vegetation Community MG4 *Alopecurus pratensis* - *Sanguisorba officinalis*) which support significant populations of Snake's Head Fritillary (*Fritillaria meleagris*). Increased public access at the SAC poses a threat from soil compaction due to high levels of trampling upon Snake's Head Fritillary⁴⁹. The SAC is divided into two components: North Meadow and Clattinger Farm. North Meadow is also designated as a National Nature Reserve (NNR) and registered Common Land. North Meadow supports approximately 95% of the UK's surviving Snake's Head Fritillary population⁵⁰. This species is also present at Clattinger Farm but in lower abundance.
- 3.6.7 North Meadow is open to the public and includes approximately 4km of designated pathways around the site to facilitate access, including the Reedbed Walk, the River Walk and the Willow Walk⁵¹ (see **Plate 1**). In addition, the Thames Path National Trail, passes along the southern boundary of the site. Parking is only possible on the road verge, although this is managed during the peak season through the use of signage and cones.

⁴⁹ Natural England (2014) North Meadows & Clattinger Farm SAC SIP. Available at: <https://publications.naturalengland.org.uk/publication/4565167836758016> [Date Accessed: 05/06/26].

⁵⁰ Natural England (2014) North Meadows & Clattinger Farm SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/publication/6299293463871488> [Date Accessed: 05/06/26].

⁵¹ Ecological Planning & Research Ltd (2023) North Meadow, Cricklade Visitor Questionnaire Survey Prepared on behalf of Swindon Borough Council, Cotswold District Council & Wiltshire Council.



Plate 1: Photos of recreational impacts at North Meadow and Clattinger Farm SAC – North Meadow component (Lepus, April 2025)

- 3.6.8 The Clattinger Farm component of the SAC is managed by the Wildlife Trust and has not been identified as at risk of public access and disturbance effects. A site visit undertaken on 16th April 2025 indicated an abundance of Snakes Head Fritillary and minimal evidence of public disturbance
- 3.6.9 In order to safeguard the North Meadow component of the SAC from the impact of recreational pressure associated with future growth, Swindon Borough Council, Natural England and other affected LPAs commissioned a visitor survey to determine the visitor catchment of the site. Outputs from this survey identified two ZOI representing two main user groups of the site including local user groups and seasonal user groups (as illustrated on **Figure 3.5**):
- Inner zone of 0 – 4.2km from North Meadow (local walkers and dog walkers)
 - Outer zone of 4.2 – 9.4km from North Meadow (visitors to see the flowering fritillaries)

- 3.6.10 Based on the outputs of the visitor surveys, an Interim Recreation Mitigation Strategy was developed (referred to hereafter as the 'Strategy')⁵². The Strategy sets out a strategic approach to mitigate recreational impacts, associated with new development, on the North Meadow component of the North Meadow and Clattinger Farm SAC. The Strategy is an interim approach, while further monitoring and surveys are undertaken, and will be reviewed within 5 years or earlier, if required.
- 3.6.11 As both the inner and outer ZOI coincide with the Plan area (**Figure 3.5**), any new residential development proposed through the Local Plan within these ZOI has the potential to increase regular, year-round, recreational pressures in-combination with other plans and projects at the North Meadow component of the SAC and therefore have LSEs. North Meadow and Clattinger Farm SAC will therefore be scoped into the HRA process.

⁵² Cotswold District Council (2023) Interim Recreational Mitigation Strategy. Available at: https://www.swindon.gov.uk/downloads/download/2657/north_meadow_and_clattinger_farm_interim_recreation_mitigation_strategy_2023-2028#:~:text=Swindon%20Borough%20Council-,North%20Meadow%20and%20Clattinger%20Farm%20Interim%20Recreation%20Mitigation%20Strategy%202023,Farm%20Special%20Area%20of%20Conservation [Date Accessed: 23/05/26].

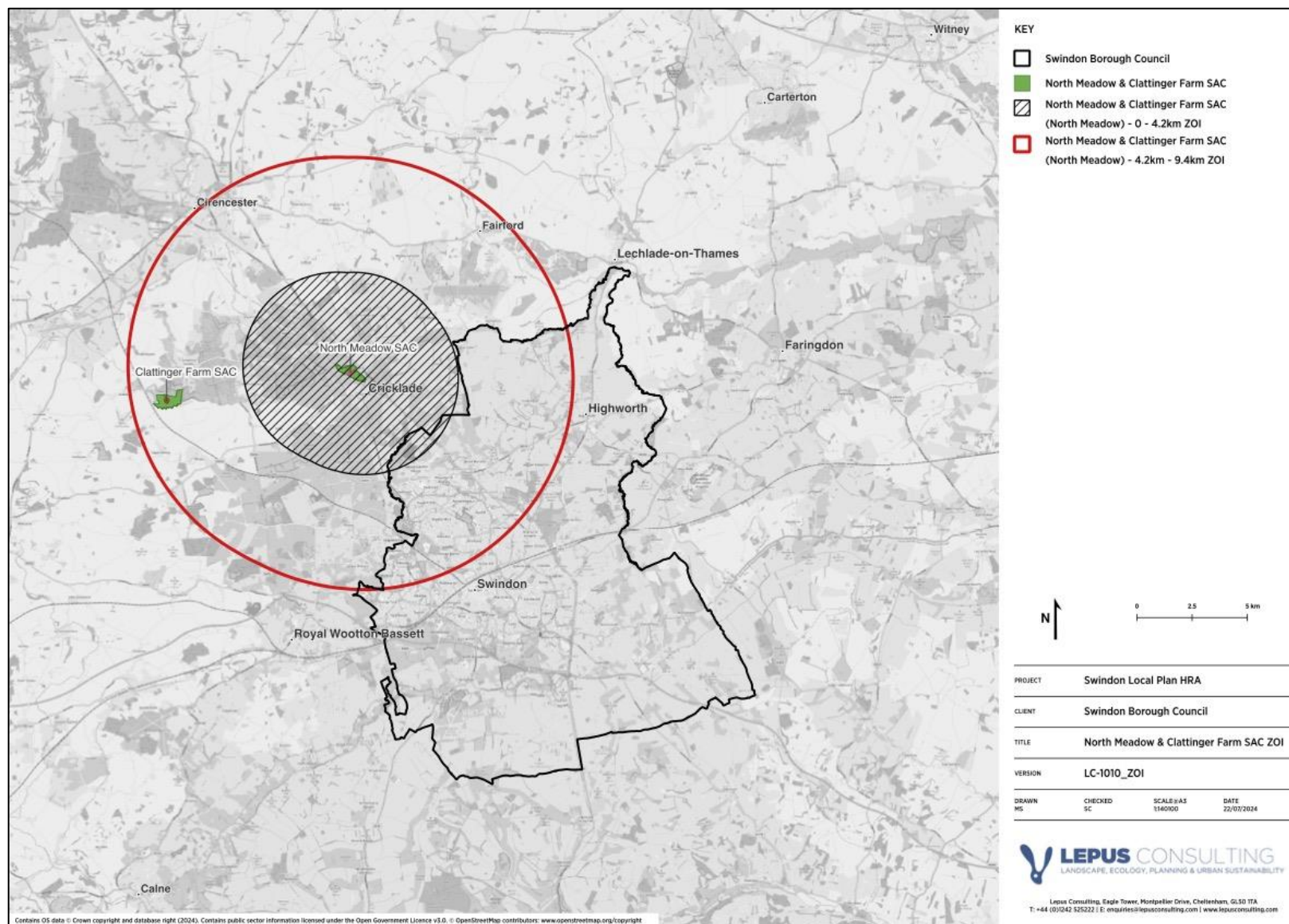


Figure 3.4: North Meadow & Clattinger Farm SAC zone of influence (relating to North Meadow component of the SAC only)

Table 3.3: Review of recreational impact pathways to European sites within the influence of the Local Plan

European site within the influence of the Plan area (15km)	Sensitive to recreational impacts?	Public access pathways	Will the European site be scoped in for further assessment in the HRA Process
Hackpen Hill SAC	No	Hackpen Hill SAC is an area of unimproved chalk grassland in the North Wessex Downs and is located approx. 8.5km from the Plan area. The topography of the site is varied and steep in nature. The site is open access. Permissive footpaths join up the areas of access land and enable a connection through to Letcombe Basset church as well as a downland link from the Ridgeway to Letcombe Basset village ⁵³ . There is a small car park 200m to the west of the SAC for the Ridgeway trail which runs approx. 150m to the south of the site and uphill. The SIP ⁵⁴ for the SAC does not indicate that it is sensitive to recreational pressures. The SAC is not promoted locally or nationally other than for conservational purposes. Given its size, limited promotion, topography and the distance of the SAC from the Plan area, it is considered unlikely that growth in the Local Plan will have a recreational LSE on the SAC.	No
Kennet and Lambourn Floodplain SAC	No	The Kennet and Lambourn Floodplain SAC is located approx. 9.9km from the Plan area. Public access to the SAC is limited and there are no car parks within the immediate areas. At the components of the SAC which are located in Thatcham, several footpaths are present, however, these components are located approx. 26km from the Plan area. The SIP ⁵⁵ for the SAC does not indicate that it is sensitive to recreational pressures. Given the lack of facilities available and the limited public access, it is considered unlikely that growth in the Local Plan will have a recreational LSE on the SAC.	No
North Meadow and Clattinger Farm SAC	Yes	The North Meadow SAC component of North Meadow and Clattinger Farm is located approx. 3.3km from the Plan area. The Clattinger Farm SAC component is located approx. 9.8km from the Plan area. The SIP notes that public access and disturbance impacts relate predominantly to the impact of high levels of compaction caused by the public access upon Snake's Head Fritillary, for which the site is designated ⁵⁶ . An increase in recreational pressure due to development in the recreational inner and outer ZOI for the North Meadow component of the SAC (see Figure 3.4) has the potential to disturb and damage its qualifying features. Therefore, it will be considered further in this HRA in terms of recreational impacts.	Yes

⁵³ Oxfordshire County Council Open Access Lane Information available at: <https://www.oxfordshire.gov.uk/residents/environment-and-planning/countryside/countryside-access/open-access-land> [Date Accessed: 23/05/26].

⁵⁴ Natural England (2014) Hackpen Hill SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/5938642669273088> [Date Accessed: 23/05/26].

⁵⁵ Natural England (2014) Kennet and Lambourn Floodplain SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/4738329056641024> [Date Accessed: 23/05/26].

⁵⁶ JNCC (2023) The Vascular Plant Red Data List for Great Britain. Available at: <https://hub.jncc.gov.uk/assets/cc1e96f8-b105-4dd0-bd87-4a4f60449907> [Date Accessed: 23/05/26].

European site within the influence of the Plan area (15km)	Sensitive to recreational impacts?	Public access pathways	Will the European site be scoped in for further assessment in the HRA Process
Pewsey Downs SAC	No	Pewsey Downs SAC is located approx. 12.4km from the Plan area. Given the SAC is not vulnerable to recreational impacts ⁵⁷ and given its distance from the Plan area, it is considered unlikely that growth in the Local Plan will have a recreational LSE on the SAC.	No
River Avon SAC	No	The River Avon SAC is located approx. 14.8km from the Plan area at its closest point. Several footpaths and PRowWs are present throughout the SAC. The SIP indicates that the features for which the River Avon SAC is designated are not sensitive to recreational pressures ⁵⁸ . Given the distance of the SAC from the Plan area it will not be considered further in this HRA in terms of recreational impacts.	No
River Lambourn SAC	No	The River Lambourn SAC is located approx. 4.5km from the Plan area. The SIP indicates that the SAC is not sensitive to recreational pressures ⁵⁹ . It will therefore not be considered further in this HRA in terms of recreational impacts.	No

3.7 Urbanisation effects

- 3.7.1 Urbanisation effects typically occur when development is located close to a European 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 between 400m⁶⁰ and 500m⁶¹. These distances recognise the distance cat predation is likely to take place and also the increased frequency of visits made by people living in close proximity to a designated site.
- 3.7.2 No sites are located within 500m of the Local Plan area and therefore urbanisation effects can be scoped out.

⁵⁷ Natural England (2014) Pewsey Downs SAC Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/5126262490136576> [Date Accessed: 23/05/26].

⁵⁸ Natural England (2015) Avon River and Valley Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/6133502894407680> [Date Accessed: 23/05/26].

⁵⁹ Natural England (2014) River Lambourn and Kennet Lambourn Floodplain Site Improvement Plan. Available at: <https://publications.naturalengland.org.uk/publication/4738329056641024> [Date Accessed: 23/05/26].

⁶⁰ Thames Basin Heaths Strategic Joint Partnership. Thames Basin Heaths SPA Delivery Framework. Available at: <https://www.guildford.gov.uk/media/21979/Thames-Basin-Heaths-SPA-delivery-framework/pdf/thames-basin-heaths-spa-delivery-framework.pdf?m=636114482807070000> [Date Accessed: 23/05/26].

⁶¹ Panter, C., Liley, D., Lake, S., Saunders, P., and Caals, Z. 2022. Visitor survey, recreational impact assessment and mitigation requirements for the Chilterns Beechwoods SAC and the Dacorum Local Plan, Report by Footprint Ecology for Dacorum Borough Council.

3.8 European sites and threats and pressures

3.8.1 Figure 3.5 illustrates the location of European sites which will be scoped into the HRA process for further consideration in the screening assessment (**Chapter 4**). Impact pathways which have the potential to affect these European sites are summarised in **Table 3.4**. These will form the basis of the following HRA screening assessment.

Table 3.4: Potential impact pathways from the Local Plan scoped in at each European site.

Potential impact pathways?	Air quality	Water quality and quantity changes	Recreational pressure	Urbanisation effects
Cothill Fen SAC	No	Yes	No	No
Kennet and Lambourn Floodplain SAC	No	Yes	No	No
North Meadow and Clattinger Farm SAC	Yes	Yes	Yes	No
Oxford Meadows SAC	No	Yes	No	No
River Lambourn SAC	No	Yes	No	No

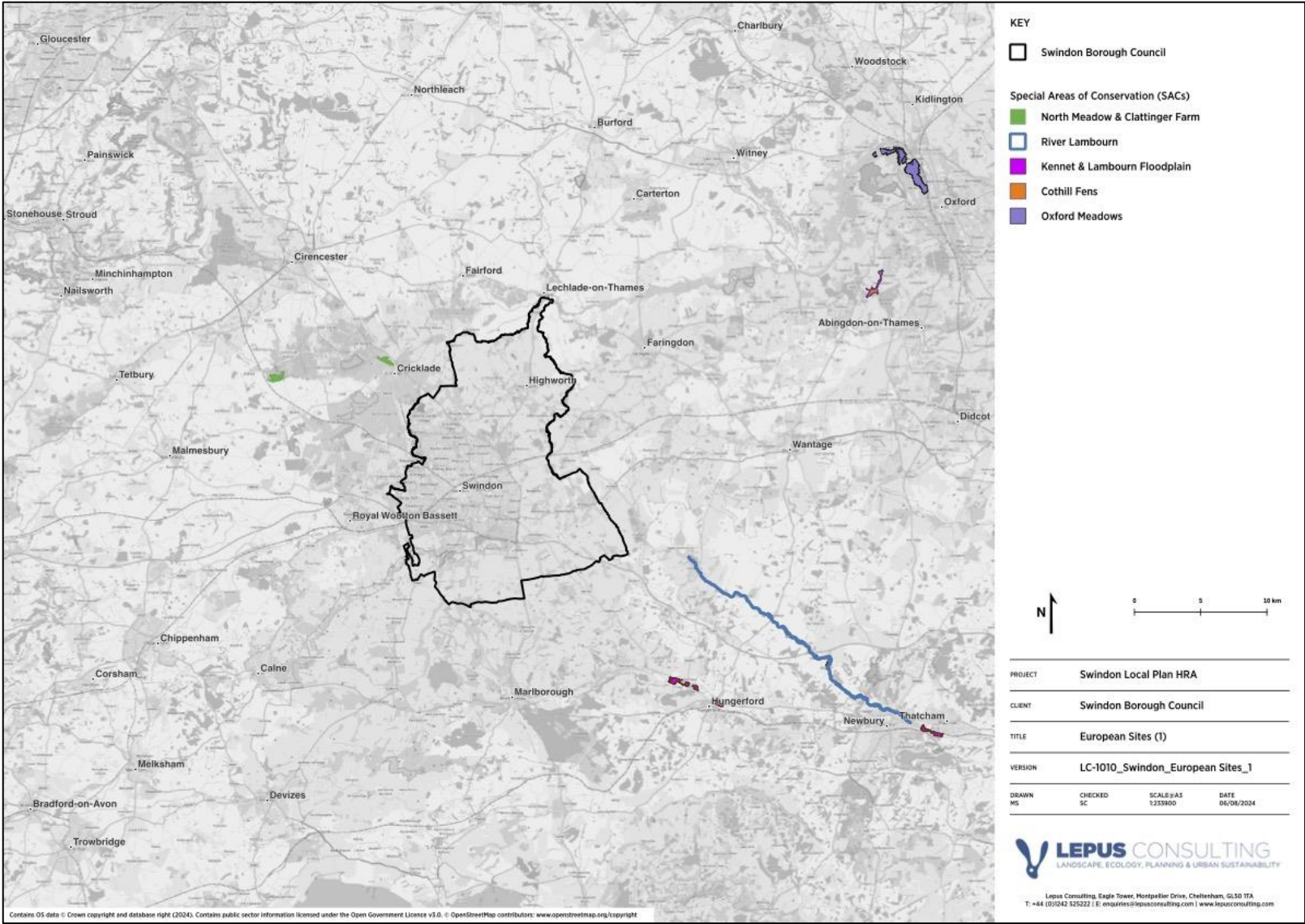


Figure 3.5: European sites for consideration in the HRA process

4 Screening of the Local Plan

4.1 Policy and allocations screening

4.1.1 This section of the report screens the Proposed Submission Local Plan for LSEs at European Sites. Each policy and allocation which forms the Local Plan was evaluated against the HRA screening criteria (see **Table 2.1**), taking into consideration case law and best practice (see **Section 2.2**). The assessment of LSEs takes no account of mitigation to ensure compliance with the People Over Wind ruling⁶². The screening assessment concluded LSEs in-combination at a number of European sites. **Appendix C** and **Appendix D** provide the output of this screening exercise which has informed the test of likely significance i.e. will the Local Plan have an LSE, alone or in-combination, at a European site.

4.1.2 It is concluded that LSEs, either from the Local Plan alone, or in-combination with other plans or projects, could be screened out for most policies. This is because the policies fall into the following categories (see **Table 2.1** for a description of each category):

- **Category A:** General statements of policy / general aspirations;
- **Category B:** Policies listing general criteria for testing the acceptability/sustainability of proposals
- **Category D:** Environmental protection/site safeguarding
- **Category F:** Policies or proposals that cannot lead to development or other change

4.1.3 The following policies in the Local Plan were however considered to have an LSE in-combination with other plans and projects:

- SS1: Swindon's Spatial Approach to Growth;
- SDA 01: Swindon's Central Area;
- SDA 02: Pipers Way Regeneration Area;
- SDA 03: Marlowe Avenue Regeneration Area;
- SDA 04: Windmill Hill;
- SDA05: Gateway North;
- SDA 06: Wichelstowe;
- SDA 07: New Eastern Villages (NEV);
- SDA 08: Kingsdown;
- SDA 09: North Tadpole;
- SDA 10: Land adjoining Blunsdon St. Andrew;
- SDA 11: Land at Highworth;
- SDA 12: Land at Wroughton;
- SDA 13: Land at Borad Blunsdon;
- HC1: Meeting Local Housing Needs;
- HC9: Gypsy, traveller and travelling showpeople Accommodation;
- E1: New Employment Sites;

⁶² InfoCuria (2018) Case C-323/17. Available at:
<http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN> [Date Accessed: 23/05/26].

- E3: Designated Employment Areas;

4.1.4 LSEs were identified at European sites detailed in **Table 3.4** as follows:

- Air quality LSEs – in-combination at North Meadow and Clattinger Farm SAC;
- Water quality and quantity LSEs – in-combination at Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC and the River Lambourn SAC; and
- Recreational LSEs – alone and in-combination at North Meadow and Clattinger Farm SAC.

4.1.5 No allocations are located within 500m of any European site and therefore the urbanisation impact pathway has therefore been screened out.

4.2 Screening conclusion

4.2.1 As required under Regulation 105 of the Habitats Regulations, an assessment has been undertaken of LSEs of the Local Plan upon European sites. The pre-screening checks (**Appendix C** and **Appendix D**) indicate that all proposed local plan allocations have the potential to have LSEs at the above European sites. In-combination air quality and water LSEs are possible for all allocations and in-combination recreational LSEs are possible at a number of allocations within the inner and outer ZOI for North Meadow and Clattinger Farm SAC (**Appendix D**). Urbanisation LSEs have been screened out. The screening assessment takes no account of mitigation measures that the policies may incorporate to mitigate adverse impacts upon European sites. It is therefore concluded that the Local Plan will be screened into the HRA process. The next stage of the HRA process will be Stage 2 - AA.

5 Air quality Appropriate Assessment

5.1 Introduction

- 5.1.1 The HRA screening process in **Chapter 4** concluded that a number of Local Plan policies and all allocations have the potential to result in LSEs at North Meadow and Clattinger Farm SAC due to changes in air quality.
- 5.1.2 This section of the report provides a preliminary AA of this issue where evidence allows. It also highlights additional work that will be required to complete the AA at Regulation 19.

5.2 Air quality impacts

- 5.2.1 The main mechanisms through which air pollution can have an adverse effect are through eutrophication (nitrogen), acidification (nitrogen and sulphur) and direct toxicity (ozone, ammonia and nitrogen oxides)⁶³. Deposition of air pollutants can alter the soil and plant composition and species which depend upon these.
- 5.2.2 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 impacts the ammonium and nitrate balance of the ecosystem, which disrupts the growth, structure and resilience of some plant species.
- 5.2.3 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.
- 5.2.4 In an attempt to manage the negative consequences of atmospheric nitrogen deposition and acidification, 'critical loads' and 'critical levels' have been established for ecosystems across Europe. Each European site is host to a variety of habitats and species, the features of which are often designated a critical load for nitrogen deposition. 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'⁶⁴. 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'⁶⁵.

⁶³ APIS (2016) Ecosystem Services and air pollution impacts. Available at: <https://www.apis.ac.uk/search-ecosystem-impacts> [Date Accessed: 05/06/26].

⁶⁴ Coordination Centre for Effects (CCE). Critical load and level definitions. Available at: https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 05/06/26].

⁶⁵ Coordination Centre for Effects (CCE). Critical load and level definitions. Available at: https://www.umweltbundesamt.de/en/Coordination_Centre_for_Effects [Date Accessed: 05/06/26].

5.3 North Meadow and Clattinger Farm SAC baseline information

- 5.3.1 The qualifying feature of North Meadow and Clattinger Farm SAC is lowland hay meadows (National Vegetation Classification MG4 *Alopecurus pratensis* - *Sanguisorba officinalis*)⁶⁶. Natural England's Supplementary Advice⁶⁷ for the SAC notes that the lowland hay meadows are sensitive to air pollution. It indicates that a change in air quality may modify the chemical status of its substrate, accelerating or damaging plant growth, altering its vegetation structure and composition and causing the loss of sensitive typical species associated with it. The management target for this habitat in terms of air quality is to 'maintain concentrations and deposition of air pollutants at or below the site-relevant Critical Load or Level values given for lowland hay meadows on the Air Pollution Information System'.
- 5.3.2 Air Pollution Information System (APIS)⁶⁸ indicates that this habitat type is sensitive to changes in air quality. A nitrogen deposition critical load range of between 10 – 20kgN/ha/yr is provided. Nitrogen deposition (N deposition to a short vegetation⁶⁹) is currently at an average of 15.281 N/ha/yr at the SAC and the level is relatively consistent across the site. Whilst the SAC is also sensitive to acidity, APIS data indicates that acidity levels are currently below critical loads.
- 5.3.3 North Meadow and Clattinger Farm SAC is split across two components. North Meadow is located on the outskirts of the settlement of Cricklade and within 200m of the A419 (approximately 97m to its south). Clattinger Farm is situated in a more rural location and not within 200m of a strategic road link. Natural England's Supplementary Advice⁷⁰ for the SAC notes that nutrient levels may be significantly affected by deposition of sediment following flood events from the River Thames.

5.4 Appropriate Assessment

- 5.4.1 [To be completed once Air Quality modelling is received.]

⁶⁶ Natural England. 2018. North Meadow and Clattinger Farm SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/4953376035176448> [Date Accessed: 05/06/26].

⁶⁷ Natural England. 2018. North Meadow and Clattinger Farm SAC. Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0016372.pdf> [Date Accessed: 05/06/26].

⁶⁸ Air Pollution Information System. <https://www.apis.ac.uk/> [Date Accessed: 05/06/26].

⁶⁹ Short vegetation - Representative of lowland hay meadow habitat.

⁷⁰ Natural England. 2018. North Meadow and Clattinger Farm SAC. Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0016372.pdf> [Date Accessed: 05/06/26].

6 Water Quality / Quantity Appropriate Assessment

6.1 Introduction

6.1.1 As noted in **Section 3.5**, urbanisation has the potential to reduce the quality of water entering a catchment through processes such as sedimentation, accidental spillage of chemicals and materials and operational surface water runoff. Water quality may also be reduced through effluent discharges at wastewater treatment works. This change in water quality can increase nutrient inputs into a catchment which can lead to algal blooms, reduce dissolved oxygen and increased turbidity. This can affect the overall condition of the receiving waterbody and may have adverse effects at hydrologically sensitive and connected habitats sites and their qualifying features. The majority of the Plan area falls within the Thames River Basin District (RBD), with a smaller area falling within the Severn RBD. The River Basin Management Plans (RBMPs) provide the strategic framework for managing water resources and water quality and are themselves subject to HRA. Their assessment identifies threats to the water environment and measures to manage these, and the RBMPs therefore provide an important strategic context for the assessment of water quality effects arising from Local Plan development.

6.1.2 The HRA screening process (see **Appendix C**) identified the potential for LSEs from changes in water quality at a number of European sites. Screening considered the hydrological connectivity between the Plan area and European sites, together with the potential for development supported by the Local Plan to affect water quality.

6.1.3 As outlined in **Table 3.2**, whilst no European sites are located in the Plan area, a number are located downstream and are hydrologically connected to the Plan area. The HRA screening process in (**Appendix C**) concludes that a number of Draft Local Plan policies and all allocations have the potential to result in likely significant water impacts as follows:

- Cothill Fen SAC– water quantity;
- Kennet and Lambourn Floodplain SAC – water quality and water quantity;
- North Meadow and Clattinger Farm SAC– water quantity;
- Oxford Meadows SAC – water quality and water quantity; and
- River Lambourn SAC – water quality.

6.1.4 Policies with the potential to have LSE water quality/quantity impacts and therefore which will be assessed in the water quality/quantity AA include the following:

- Policy CSE11 – Biodiversity, Geodiversity and Nature Recovery,
- Policy CSE12 – Managing Flood Risk;
- Policy CSE13- Protection and enhancement of the Water Environment; and
- Policy INF2 – Wastewater and Sewage Infrastructure and Water Supply

6.2 Water Quality Appropriate Assessment

- 6.2.1 The HRA screening process (see **Appendix C**) identified the potential for LSEs from changes in water quality at the Kennet and Lambourn Floodplain SAC, Oxford Meadows SAC and River Lambourn SAC. These sites are hydrologically connected to the Plan area and have qualifying features which may be sensitive to changes in water quality. The potential for water quality effects was therefore considered further through Appropriate Assessment.
- 6.2.2 Wastewater treatment within the Plan area is provided by wastewater treatment works operated by Thames Water. Treated effluent is discharged from wastewater treatment works to receiving watercourses, which may subsequently provide hydrological connectivity to European sites. The Government, Environment Agency and water companies have responsibilities for preparing plans and strategies and implementing the regulatory framework for water resources and wastewater management. This is undertaken through a catchment-based approach and provides a framework for protecting the water environment, supporting the achievement of Water Framework Directive (WFD) objectives and protecting European sites. The Thames and Severn RBMPs, together with the Water Cycle Study (WCS), therefore provide an important strategic context for managing potential water quality effects associated with Local Plan growth.
- 6.2.3 Water quality modelling has been undertaken to assess the potential effects of growth proposed through the Local Plan on receiving watercourses. The assessment considered the six Sewage Treatment Works (STWs) which are relevant to growth within and around the Plan area: Swindon, Highworth, Wanborough, Blunsdon, Shrivenham and Marlborough STWs. The receiving watercourses are the River Ray, Westrop Brook, Danes Brook, Share Ditch, Tuckmill Brook and River Kennet respectively.
- 6.2.4 The WCS assesses wastewater treatment capacity through a headroom assessment (see **Table 6.1**). Permitted dry weather flow (DWF) is used for the hydraulic capacity of each STW. The assessment considers projected flows at the end of the Plan period under Q80 and Q90 conditions. Q80 represents a higher-flow or wetter catchment condition, while Q90 represents a lower-flow or drier condition, providing an assessment of STW capacity under different hydrological conditions. The Water Cycle Study identifies capacity constraints at a number of STWs serving the Plan area.
- 6.2.5 The WCS identifies capacity constraints at a number of sewage treatment works (STWs) serving the Plan area. As shown in **Table 6.1**, projected dry weather flows (DWF) exceed permitted levels at Swindon, Highworth, Wanborough and Blunsdon STWs under one or both modelled scenarios. Planned upgrades are identified at Swindon, Highworth, Wanborough and Blunsdon STWs, although the timing and/or capacity benefits of some upgrades remain uncertain⁷¹. In particular, the planned upgrade at Blunsdon STW is not expected to increase treatment capacity and therefore a risk of continued DWF permit exceedance remains.

⁷¹ WHS. Swindon Borough Council Detailed Water Cycle Study. [Accessed: 09/09/26]

- 6.2.6 The WCS identifies no headroom constraint arising from the proposed growth at Shrivenham STW (**See Table 6.1**). Existing headroom constraints are identified at Marlborough STW; however, the additional development expected to drain to the works is not anticipated to significantly exacerbate the existing issue, and a formal upgrade is planned by Thames Water⁷². Further details of the projected flows, permitted DWF and identified upgrades are provided in **Table 6.1**.
- 6.2.7 The headroom assessment therefore identifies that additional wastewater treatment capacity or improvements to existing infrastructure will be required at a number of STWs to accommodate the proposed growth. The WCS identifies planned infrastructure improvements at the affected works.
- 6.2.8 The WCS also considers the potential effects of increased wastewater flows on receiving water quality using the Environment Agency's SIMCAT model. The assessment considers ammonia, BOD, nitrate, orthophosphate and total phosphorus.
- 6.2.9 Under current treatment assumptions, the modelling identifies greater than 10% deterioration at Wanborough STW for ammonia, BOD, orthophosphate and total phosphorus, and at Blunsdon STW for orthophosphate and total phosphorus. At the remaining STWs, deterioration is below 10% for the parameters assessed.
- 6.2.10 The WCS additionally considers Technically Achievable Limits (TALs) for wastewater treatment. Under this scenario, the deterioration identified at Wanborough and Blunsdon is reversed. The results therefore indicate that improvements to wastewater treatment have the potential to prevent the deterioration associated with the additional wastewater flows⁷³.
- 6.2.11 The 10% deterioration criterion is used within the WCS as part of its assessment against WFD requirements. It is not considered to represent an HRA threshold. For the purposes of the HRA, the results are considered alongside the headroom assessment, the hydrological connection to the European sites and the sensitivity of their qualifying features to changes in water quality.

⁷²Thames Water (2026) *Investment plans for storm discharge sites- Marlborough STW* <https://www.thameswater.co.uk/about-us/performance/river-health/frequently-asked-questions/information-about-specific-sites>

⁷³ WHS. Swindon Borough Council Detailed Water Cycle Study. [Accessed: 09/09/26]

Table 6.1: Water Quality headroom results

STW Name	Q80 (5-yr average 20-24)	Projected Q80 (All Authorities)	Permitted DWF	Headroom Available Projected (%)
Swindon	49,657	59,064	48,275	-22.3
Highworth	1,887	2,264	1,900	-19.18
Wanborough	0,557	0,764	722	-5.8
Blunsdon	0,515	0,642	487	-31.8
Shrivenham	1,878	1,919	2,842	32.5
Marlborough	8,659	8,676	8,076	-7.4

STW Name	Q90 (5-yr average 20-24)	Projected Q90	Permitted DWF	Headroom Available Projected (%)
Swindon	46,024	55,429	48,275	-14.8
Highworth	1,787	2,164	1,900	-13.9
Wanborough	0,496	0,703	722	2.7
Blunsdon	0,478	0,605	487	-24.2
Shrivenham	1,688	1,729	2,842	39.2
Marlborough	8,064	8,081	8,076	2.6

Kennet and Lambourn Floodplain SAC

- 6.2.12 The Kennet and Lambourn Floodplain SAC is located approximately 10km to the south west of the Plan area and is downstream of the Plan area. The SAC is designated for Desmoulin's whorl snail (*Vertigo moulinsiana*). The species is associated with wetland habitats and is sensitive to changes in hydrological conditions and water quality. The conservation objectives for the SAC seek to maintain or restore the qualifying feature and the supporting processes on which it depends. The SAC is downstream of the Plan area and was therefore screened in for consideration of potential water quality effects.
- 6.2.13 Marlborough STW discharges to the River Kennet. The WCS identifies existing headroom constraints at Marlborough STW; however, the additional flows associated with the Local Plan are not expected to significantly exacerbate the existing issue. A formal upgrade is planned by Thames Water⁷⁴.
- 6.2.14 The water quality modelling does not identify deterioration in the modelled parameters at Marlborough STW as a result of the proposed growth. The WCS therefore does not identify an additional water quality pressure in the River Kennet arising from the Local Plan.
- 6.2.15 Taking account of the modelling results and the mitigation and protective policy measures set out in **Section 6.3**, it is concluded that the Swindon Borough Local Plan would not result in an adverse effect on the integrity of Kennet and Lambourn Floodplain SAC through changes in water quality, either alone or in combination with other plans and projects.

⁷⁴ Thames Water (2026) *Investment plans for storm discharge sites- Marlborough STW* <https://www.thameswater.co.uk/about-us/performance/river-health/frequently-asked-questions/information-about-specific-sites>

Oxford Meadows SAC

- 6.2.16 Oxford Meadows SAC is located approximately 26 km downstream of the Plan area and is hydrologically connected via the River Thames. It was therefore screened in for consideration of potential water quality effects. The SAC is designated for lowland meadow habitats and creeping marshwort (*Apium repens*), which is particularly sensitive to hydrological changes.
- 6.2.17 The headroom assessment identifies capacity constraints at Swindon, Highworth, Wanborough and Blunsdon STWs. Infrastructure improvements are identified at each of these works, although the extent and timing of the improvements vary. In particular, the WCS identifies that the planned improvement at Blunsdon will improve effluent quality but will not increase treatment capacity.
- 6.2.18 The water quality modelling identifies some deterioration under current treatment assumptions at Wanborough and Blunsdon. However, the modelling indicates that these effects can be reversed through improved treatment performance.
- 6.2.19 The WCS does not identify a change in WFD classification of the receiving waterbodies as a result of the proposed growth. The results of the headroom and water quality assessments therefore provide evidence that the effects of additional wastewater flows can be managed through wastewater treatment improvements and infrastructure provision.
- 6.2.20 Taking into consideration the headroom assessment, the planned wastewater infrastructure improvements and the water quality modelling, it is considered that the Local Plan will not adversely affect the integrity of Oxford Meadows SAC through changes in water quality, either alone or in combination with other plans and projects.

River Lambourn SAC

- 6.2.21 River Lambourn SAC is designated for the river habitat and its associated aquatic qualifying species. The SAC is located approximately 4.5 km south east of the Plan area, and part of the Plan area falls within the nutrient neutrality catchment of the SAC. The SAC is designated for the water course of plain to montane levels with Water-crowfoot (*Ranunculus fluitantis*), brook lamprey (*Lampetra planeri*) and bullhead (*Cottus gobio*). The SAC is underpinned by the River Lambourn SSSI. Any increase in nutrient inputs associated with development therefore has the potential to affect the qualifying features of the SAC.
- 6.2.22 Natural England has identified the River Lambourn SAC as being sensitive to nutrient pollution, particularly phosphorus. Phosphorus concentrations are currently above the relevant targets for the River Lambourn SSSI, resulting in an unfavourable condition for its river and stream features. Excessive nutrient inputs can contribute to eutrophication and changes in aquatic plant communities, with consequent effects on the qualifying features of the SAC.
- 6.2.23 A small part of the Plan area falls within the nutrient neutrality catchment of the River Lambourn SAC. However, a review of the Local Plan allocations confirms that no allocations are located within this nutrient sensitive catchment. The Local Plan includes protective policy wording requiring development coming forward within the sensitive catchment area, including windfall development, to ensure that it does not contribute to nutrient inputs at the SAC (Policy CSE11 – Biodiversity, Geodiversity and Nature Recovery).

- 6.2.24 The water quality modelling undertaken through the WCS does not constitute a direct assessment of nutrient loading to the River Lambourn SAC. The SAC is therefore considered separately through the nutrient neutrality requirements applicable to development within its catchment.
- 6.2.25 Development within the nutrient neutrality catchment will be required to demonstrate nutrient neutrality before coming forward. This provides a mechanism to ensure that development does not result in an increase in nutrient loading to the River Lambourn SAC.
- 6.2.26 Taking into consideration the absence of Local Plan allocations within the nutrient neutrality catchment, the protective policy wording included within the Local Plan and the requirement for development within the catchment to demonstrate nutrient neutrality, it is considered that the Local Plan will not adversely affect the integrity of the River Lambourn SAC through changes in water quality, either alone or in combination with other plans and projects.

6.3 Mitigation

- 6.3.1 The water quality assessment identifies that additional wastewater treatment capacity and improvements to treatment performance may be required to accommodate the level of growth proposed through the Local Plan, particularly at STWs where projected flows exceed existing permitted dry weather flow. The delivery and timing of wastewater infrastructure will therefore be important to ensuring that development does not result in deterioration of receiving water quality.
- 6.3.2 Thames Water has identified planned upgrades at a number of STWs. At Swindon STW, two formal upgrades are planned to improve treatment capacity and the efficiency of the works⁷⁵. A phosphorus permit limit of 0.25 mg/l is also proposed for AMP8, which is expected to improve effluent quality in relation to phosphorus.
- 6.3.3 At Highworth and Blunsdon STWs, planned upgrades are also expected to improve treatment capacity and effluent quality. The Blunsdon upgrade specifically includes measures to reduce phosphorus concentrations entering the receiving watercourse.
- 6.3.4 Where additional wastewater treatment capacity or improvements to effluent quality are required to accommodate planned growth without deterioration in receiving water quality, development should be appropriately phased to ensure that the necessary infrastructure and environmental capacity are available.
- 6.3.5 Policy CSE11 – Biodiversity, Geodiversity and Nature Recovery, Policy CSE12 – Managing Flood Risk, Policy CSE13- Protections and enhancement of the Water Environment, and Policy INF2 – Wastewater and Sewage Infrastructure and Water Supply provide additional protection for water quality and ensure that development takes account of the capacity of wastewater infrastructure and the water environment.

⁷⁵ Thames Water (2026) *Investment plans for storm discharge sites- Swindon STW* <https://www.thameswater.co.uk/about-us/performance/river-health/frequently-asked-questions/information-about-specific-sites>

Table 6.2: Summary of water quality modelling results

STW	Receiving WFD waterbody	>10% deterioration under current technology?	WFD class deterioration?	Effect of TALs	HRA Conclusion
Swindon	Ray (Wiltshire)	No	No	Reduces BOD, nitrate, orthophosphate and total phosphorus; TAL ammonia result not representative	No adverse effect on integrity
Highworth	Westrop Brook	No	No	Improves all assessed parameters; BOD improves from Poor to Good	No adverse effect on integrity
Wanborough	Liden Brook, Swindon	Yes – ammonia, BOD, orthophosphate and total phosphorus	No	Reverses deterioration	No adverse effect on integrity, taking account of TALs
Blunsdon	Share Ditch	Yes – orthophosphate and total phosphorus	No	Reverses deterioration	No adverse effect on integrity, taking account of TALs
Shrivenham	Tuckmill Brook and tributaries	No	No	Improves most parameters; TAL ammonia result not representative	No adverse effect on integrity
Marlborough	Middle Kennet	No	No	Little/no change	No adverse effect on integrity

6.4 Water quality conclusion

6.4.1 The water quality modelling demonstrates that Local Plan growth would not result in a deterioration in WFD class at any of the assessed receiving waterbodies. Under current technology, greater than 10% deterioration is predicted only at Wanborough and Blunsdon STWs, and these deteriorations are reversed when technically achievable treatment limits are applied.

6.4.2 The assessment therefore identifies the need for continued investment in wastewater treatment infrastructure and treatment performance to ensure that the growth proposed through the Local Plan can be accommodated without deterioration in receiving water quality. The planned wastewater treatment upgrades, the regulatory framework governing wastewater discharges, the requirements of the RBMPs and WCS, and the protective provisions of Policies CSE11, CSE12 and INF2 provide a framework for managing these effects. Development will also need to be appropriately phased where necessary to ensure that adequate wastewater infrastructure and environmental capacity are available.

- 6.4.3 Taking account of the water quality modelling, the hydrological relationships between the Plan area and European sites, the absence of allocations within the River Lambourn nutrient neutrality catchment, the strategic framework provided by the RBMPs and WCS, the protective Local Plan policies and the mitigation measures identified above, it is concluded that the Swindon Borough Local Plan would not result in an adverse effect on the integrity of any European site, either alone or in combination with other plans and projects, as a result of changes in water quality.

6.5 Water quantity Appropriate Assessment

- 6.5.1 Urban development can 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 European sites or watercourses which connect to them and therefore water levels. Water mains leakage and sewer infiltration may also affect water levels. In addition, supply to meet water demand associated with new development (residential and commercial / industrial) also has the potential to affect water balances at hydrologically sensitive European sites which are connected with the Plan area.
- 6.5.2 As set out in **Section 3.5**, a number of high-level strategic water management plans are in place to demonstrate long term plans to accommodate the impacts of population growth, drought, environmental obligations and climate change uncertainty in order to balance supply and demand including WRMPs and Drought Plans. In addition, the abstraction of water is subject to a licensing process administered by the EA. Policy INF2 - Wastewater and Sewage Infrastructure and Water Supply – sets out requirements for new development to be water efficient and ensure adequate water supply.
- 6.5.3 The Regulation 18 HRA identified potential water quantity impacts at the Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC and Oxford Meadows SAC. The River Lambourn SAC was not identified as having a water quantity pathway because it is not located within the relevant water resource zone.
- 6.5.4 The Detailed WCS prepared for the Regulation 19 Local Plan focuses on wastewater infrastructure, including wastewater headroom, storm overflows and water quality. Water companies are required to prepare WRMPs which set out how they intend to maintain a secure water supply while protecting and enhancing the environment. The strategic management of water resources therefore takes account of future demand, environmental obligations and the effects of climate change.
- 6.5.5 In addition, abstraction from watercourses and groundwater is controlled through the Environment Agency's abstraction licensing regime. This provides a regulatory mechanism through which abstraction can be controlled having regard to the availability of water resources and environmental requirements.
- 6.5.6 The Local Plan includes Policy INF2 – Wastewater, Sewage Infrastructure and Water Supply, which seeks to ensure that new development is appropriately supported by water supply and sewerage infrastructure and promotes water efficiency. The policy therefore provides a framework for ensuring that development does not proceed without adequate water infrastructure.
- 6.5.7 In relation to the Cothill Fen SAC, North Meadow and Clattinger Farm SAC and Oxford Meadows SAC, the assessment has considered the strategic management of water resources and the regulatory controls applying to abstraction and water supply. The available evidence does not identify a mechanism by which the Local Plan would result in an adverse change in water levels or water availability at these European sites.

-
- 6.5.8 In relation to the Kennet and Lambourn Floodplain SAC, the same strategic water-resource controls apply. The SAC is downstream of the Plan area and is therefore considered in the context of the wider water-resource management framework rather than as a site directly subject to abstraction associated with individual Local Plan allocations.
- 6.5.9 Taking into consideration the strategic management of water resources through WRMPs and Drought Plans, the Environment Agency's abstraction licensing regime and the water-efficiency and infrastructure requirements of Policy INF2, it is considered that the Local Plan will not adversely affect the integrity of the Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC or Oxford Meadows SAC through changes in water quantity, either alone or in combination with other plans and projects.

7 Recreational Pressure Appropriate Assessment

7.1 Introduction

7.1.1 The following section of the AA focuses on assessing the ecological impacts of increased recreational pressures from the Local Plan upon the qualifying features of the following European sites which were screened into the HRA process (**Appendix C**):

- North Meadows and Clattinger Farm SAC

7.1.2 Policies with the potential to have LSE recreational impacts and therefore which will be assessed in the recreational pressure AA include the following:

- Policy SS1 – Swindon's Spatial Approach to Growth;
- Policy SS2 – Settlement Hierarchy; and
- Policy HC1 – Meeting Local Housing Needs.

7.1.3 Increased recreational pressure at European sites can result in damage to habitats and changes in behaviour to animals such as birds at nesting and feeding sites. This can be caused by erosion and compaction, troubling of grazing stock, spreading of invasive species, dog fouling, and tree climbing among other recreational impacts. 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. Increased development has the potential to increase recreational pressures upon European sites which are accessible to the public.

7.2 North Meadow and Clattinger Farm SAC baseline information

7.2.1 The qualifying feature of North Meadow and Clattinger Farm SAC is lowland hay meadows which is sensitive to the trampling effects of recreational pressure and eutrophication from dog faeces.

7.2.2 The conservation target for the SAC is to 'maintain the management measures (either within and / or outside the site boundary as appropriate) which are necessary to maintain the structure, functions and supporting processes associated with the lowland hay meadows feature'⁷⁶.

7.2.3 The North Meadow component of the SAC, which is open to the public, is identified as being of particular risk to recreational impacts and, as set out at **paragraphs 3.6.7 and 3.6.11**, and is subject to an interim recreational mitigation strategy⁷⁷. The Clattinger Farm component of the SAC has not been identified as at risk of public access and disturbance effects.

⁷⁶ Natural England (2018) European Site Conservation Objectives: Supplementary advice on conserving and restoring site features. North Meadow & Clattinger Farm Special Area of Conservation (SAC). Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0016372.pdf> [Date Accessed: 23/05/26].

⁷⁷ Cotswold District Council (2023) Interim Recreational Mitigation Strategy. Available at: https://www.swindon.gov.uk/downloads/download/2657/north_meadow_and_clattinger_farm_interim_recreation_mitigation_strategy_2023-2028#:~:text=Swindon%20Borough%20Council-,North%20Meadow%20and%20Clattinger%20Farm%20Interim%20Recreation%20Mitigation%20Strategy%202023,Farm%20Special%20Area%20of%20Conservation [Date Accessed: 23/05/26].

- 7.2.4 The North Meadow and Clattinger Farm Interim Recreational Mitigation Strategy sets out two recreational ZOI representing two main user groups of the SAC including local user groups and seasonal user groups. A review of residential allocations set out in the Local Plan in relation to these ZOI indicates that one residential allocation is located within the inner ZOI (Site NT01) with 13 residential allocations located within the outer ZOI, see **Figure 7.1** and **Appendix D**.
- 7.2.5 The presence of allocations within the identified ZOIs indicates that there is potential for the Local Plan to result in an increase in recreational use of North Meadow. In the absence of appropriate mitigation, this increase in recreational pressure could result in effects upon the lowland hay meadow qualifying feature through trampling, physical disturbance and nutrient enrichment associated with dog fouling.

7.3 Appropriate Assessment

- 7.3.1 The North Meadow and Clattinger Farm Interim Recreational Mitigation Strategy 2023–2028 provides an interim framework for mitigating recreational pressure arising from new development within the identified ZOIs. The Strategy identifies North Meadow as the component of the SAC most vulnerable to recreational impacts.
- 7.3.2 The Strategy provides for Strategic Access Management and Monitoring (SAMM) contributions from new development within both the inner and outer ZOIs. SAMM measures include increased provision of wardens and rangers, monitoring, information provision, temporary walk boards, dog waste bins and signage. These measures are intended to manage recreational use and raise awareness of the sensitivities of the SAC.
- 7.3.3 The Strategy also identifies the potential need for Suitable Alternative Natural Greenspace (SANG) or enhanced Green Infrastructure (GI) for development within the inner ZOI and larger developments within the outer ZOI with good transport links to the SAC. Such measures are intended to provide alternative recreational opportunities and divert recreational pressure away from the SAC. The Strategy provides guidelines for the provision of SANG.
- 7.3.4 The recreational mitigation measures identified through the Strategy are secured through Policy CSE8: Biodiversity, Geodiversity and Nature Recovery and relevant area policies within the Local Plan. Policy CSE8 provides for the protection and enhancement of biodiversity and requires development to address impacts on designated sites and their supporting habitats.
- 7.3.5 The Local Plan also provides for accessible green infrastructure and open space through Policies CSE6 and HL4. Policy CSE6 requires major development to incorporate accessible and multifunctional green and blue infrastructure, including opportunities for recreation and play. Policy HL4 requires major residential development to contribute towards public open space provision and seeks to ensure that new provision is accessible and appropriately integrated with development.
- 7.3.6 Policy HL3 seeks to protect existing open spaces, sports and recreational facilities, while Policy INF1 provides mechanisms for securing infrastructure and associated financial contributions required to support development.
- 7.3.7 The provision of accessible green infrastructure and open space through Policies CSE6 and HL4 is expected to provide alternative recreational opportunities associated with new development. These measures are complementary to the SAC-specific mitigation provided through the Interim Strategy and, where required, SANG or enhanced GI.

- 7.3.8 The Interim Strategy covers the period 2023–2028 and is intended to be reviewed within five years or earlier, if required, in light of monitoring and survey information. The Strategy's interim status does not, in itself, mean that recreational impacts arising from development after 2028 would result in an adverse effect on the integrity of the SAC.
- 7.3.9 The requirement for continued recreational mitigation should be informed by monitoring and available evidence concerning recreational use and the condition of the SAC. Where such evidence identifies that recreational pressure associated with development continues to present a risk to the qualifying feature, appropriate mitigation should continue to be secured through the relevant planning and mitigation mechanisms.
- 7.3.10 The Local Plan provides mechanisms through Policies CSE8, CSE6, HL4 and INF1 for securing appropriate mitigation, green infrastructure and recreational provision associated with development. These mechanisms can support the continuation or adaptation of mitigation measures where this is demonstrated to be necessary.
- 7.3.11 Taking the above into consideration, recreational pressure arising from development within the identified ZOIs can be addressed through the implementation of the Interim Recreational Mitigation Strategy, including SAMM and, where required, SANG or enhanced GI, alongside the provision of accessible green infrastructure and open space through the Local Plan.

7.4 Conclusion

- 7.4.1 The Local Plan would result in residential development within the identified recreational ZOIs for North Meadow and Clattinger Farm SAC. In the absence of mitigation, the associated increase in recreational use could adversely affect the lowland hay meadow qualifying feature through trampling, physical disturbance and nutrient enrichment associated with dog fouling.
- 7.4.2 The North Meadow and Clattinger Farm Interim Recreational Mitigation Strategy 2023–2028 provides a framework for mitigating recreational pressure associated with development within the ZOIs. This includes SAMM measures for development within the inner and outer ZOIs and, where required, SANG or enhanced GI. The mitigation requirements are secured through Policy CSE8 and relevant area policies within the Local Plan.
- 7.4.3 The Local Plan also provides for accessible green infrastructure and open space through Policies CSE6 and HL4, protection of existing recreational provision through Policy HL3, and mechanisms for securing infrastructure and financial contributions through Policy INF1.
- 7.4.4 The Interim Strategy will be reviewed prior to, and as necessary beyond, 2028 in light of monitoring and the available evidence on recreational pressure and the effectiveness of mitigation measures. Where continued mitigation is required to avoid adverse effects on the SAC, appropriate recreational mitigation will continue to be secured and adapted as necessary throughout the Local Plan period. This review will also take account of green infrastructure provision created during the Local Plan period, including any new SANG or SANG-like green spaces that may provide additional opportunities for mitigating recreational pressure.

- 7.4.5 Subject to the implementation of the recreational mitigation measures identified through the Interim Strategy, and the continuation and adaptation of appropriate mitigation following its review where required by the evidence, it is considered that the Local Plan would not result in an adverse effect on the integrity of North Meadow and Clattinger Farm SAC, either alone or in-combination with other plans and projects, as a result of recreational pressure. This conclusion applies across the full Local Plan period, including the period beyond 2028.

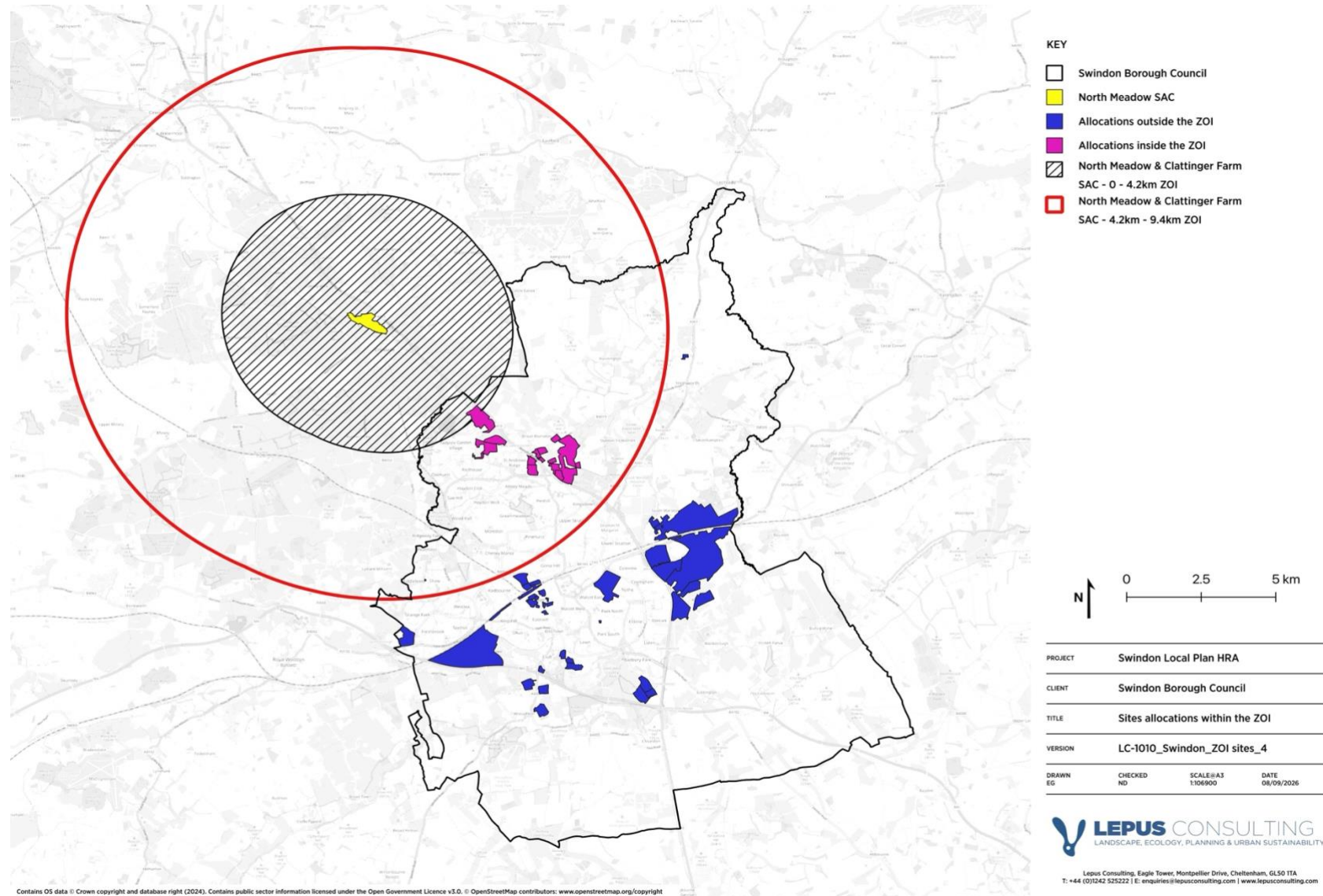


Figure 7.1: Site allocations in relation to the recreational ZOI of the North Meadow component of the North Meadow and Clattinger Farm SAC

8 Next steps

8.1 Conclusions

- 8.1.1 The Swindon Borough Local Plan is not directly connected with or necessary to the management of any European site. A screening assessment was therefore undertaken to identify whether implementation of the Local Plan could result in Likely Significant Effects (LSEs) on European sites. Taking no account of mitigation measures, the screening assessment identified the potential for LSEs through air quality, water quality, water quantity and recreational pressure.
- 8.1.2 The HRA therefore progressed to Appropriate Assessment to consider these impact pathways in greater detail. The assessment drew upon the latest available evidence prepared in support of the Local Plan, including the Detailed Water Cycle Study, water quality modelling, strategic water resource planning evidence and the North Meadow and Clattinger Farm Interim Recreational Mitigation Strategy 2023–2028.
- 8.1.3 The Precautionary Principle has been applied throughout the Appropriate Assessment where uncertainty exists. The assessment has taken account of the mitigation measures embedded within the Local Plan, together with the strategic mitigation and regulatory measures identified through the evidence base, including wastewater infrastructure improvements, Technically Achievable Limit upgrades, Water Resources Management Plans, Drought Plans, abstraction licensing and recreational mitigation measures.
- 8.1.4 Taking account of the findings of the Appropriate Assessment and the identified mitigation measures, it can be concluded that implementation of the Swindon Borough Local Plan will not result in adverse effects on the integrity of Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC or River Lambourn SAC, either alone or in-combination with other plans and projects, as a result of water quality, water quantity or recreational pressure.
- 8.1.5 In relation to air quality, the North Meadow and Clattinger Farm SAC qualifying feature is sensitive to atmospheric pollution and the North Meadow component is located in close proximity to the A419. The air quality assessment should therefore be finalised using the Local Plan transport modelling to confirm the effects of changes in traffic flows and emissions. Subject to the findings of this assessment being consistent with the conclusions of this HRA, no adverse effect on the integrity of the SAC is anticipated as a result of air quality.

8.2 Next Steps

- 8.2.1 The purpose of this report is to inform the Habitats Regulations Assessment of the Swindon Borough Local Plan using the best available evidence.
- 8.2.2 The air quality Appropriate Assessment should be finalised following receipt of the Local Plan transport modelling outputs. Any changes to the assessment arising from the transport modelling should be incorporated into the final HRA.
- 8.2.3 Swindon Borough Council, as the Competent Authority, is responsible for undertaking the Integrity Test in light of the conclusions presented within this report.
- 8.2.4 The Council should have regard to representations made by Natural England under the provisions of the Habitats Regulations before determining whether the Local Plan can be adopted.

This page is deliberately blank.

Appendix A: In-combination Assessment

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Cotswold District Council ¹	The Cotswold District Council Local Plan 2011 - 2031 was adopted by the Council on 3rd August 2018. The District Council is currently updating its Local Plan to make it 'Green to the Core' as well as considering development needs up to 2041. A Regulation 18 Consultation was undertaken in 2024²	The Adopted Local Plan allocates 8,400 dwellings and at least 24 hectares of B class employment land over the Plan period 2011 – 2031.	The combined impact of neighbouring authority growth, in-combination with the Local Plan, on air quality, hydrology and public access and disturbance impacts will be considered further in the HRA process.
West Berkshire Council ³	The West Berkshire Local Plan Review 2023 to 2041 (LPR) was adopted on 10 June 2025.	The Local Plan Review makes provision for minimum 9,270 homes between 1 April 2023 and 31 March 2041: average 515 homes per annum. Minimum requirement of 98,196 sqm of industrial floorspace and 57,531 sqm of office floorspace in 2023 – 2041 period.	The combined impact of neighbouring authority growth, in-combination with the Local Plan, on air quality, hydrology and public access and disturbance impacts will be considered further in the HRA process.

¹ Cotswold District Council (2018) Cotswold District Local Plan. Available at: <https://www.cotswold.gov.uk/media/k2jvq3b/cotswold-district-local-plan-2011-2031-adopted-3-august-2018-web-version.pdf> [Accessed: 02/06/26].

² Cotswold District Council (2024) Evidence base and monitoring. Available at: <https://www.cotswold.gov.uk/planning-and-building/planning-policy/local-plan-news-and-consultation/> [Accessed: 02/06/26].

³ West Berkshire Council. The Current Local Plan. Available at: <https://www.westberks.gov.uk/article/40117/The-Current-Local-Plan> [Accessed: 02/06/26].

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Vale of White Horse District Council ⁴	Divided into two parts, Local Plan 2031 Part 1 was adopted in December 2016 and the Local Plan 2031 Part 2 was adopted in October 2019. Local Plans Part 1 and Part 2 have been reviewed (Regulation 10A) and continues to provide a suitable framework for development ⁵ . South Oxfordshire and the Vale of White Horse have prepared a Joint Local Plan 2041, which has been submitted to the Secretary of State for Housing, Communities and Local Government for examination by a planning inspector ⁶ .	The housing target outlined by Part 1 for the Vale of White Horse District is for at least 20,560 homes to be delivered in the plan period between 2011 and 2031 ⁷ . 12,495 dwellings will be delivered through strategic allocations. 1,840 dwellings remain to be identified and will be allocated through the Local Plan 2031 Part 2 or Neighbourhood Development Plans or through the Development Management process. Plan 2 outlines a housing requirement for unmet housing needs for Oxford of 22,760 dwellings between April 2011 to March 2031, with 2,252 to be delivered through strategic allocations and 2,420 to be delivered through additional allocations ⁸ .	The combined impact of neighbouring authority growth, in-combination with the Local Plan, on air quality, hydrology and public access and disturbance impacts will be considered further in the HRA process.

⁴ Vale of White Horse District Council (2016) Local Plan 2031 Part 1 Strategic sites and polices. Available at: <https://www.whitehorsedc.gov.uk/wp-content/uploads/sites/3/2020/10/Local-Plan-2031-Part-1.pdf> [Accessed: 05/06/26].

⁵ Vale of White Horse District Council (2016) Local Plan 2031. Available at: <https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/local-plan-2031/> [Accessed: 05/06/26].

⁶ Vale of White Horse District Council (2025) Joint Local Plan 2041. Available at: <https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/local-plan-2041/> [Accessed: 05/06/26].

⁷ Vale of White Horse District Council (2016) Local Plan 2031 Part 1 Strategic sites and polices. Available at: <https://www.whitehorsedc.gov.uk/wp-content/uploads/sites/3/2020/10/Local-Plan-2031-Part-1.pdf> [Accessed: 05/06/26].

⁸ Vale of White Horse District Council (2016) Local Plan 2031 Part 2 Detailed Policies and Additional Sites. Available at: <https://www.whitehorsedc.gov.uk/wp-content/uploads/sites/3/2021/03/VOWHDC-Master-1.pdf> [Accessed: 05/06/26].

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Wiltshire Council ⁹	The current Local Plan is the Wiltshire Core Strategy (WCS), adopted in January 2015. The WCS, along with made plans, form the development plan for Wiltshire for the period up to 2026. Wiltshire Council was writing a new Local Plan - the Regulation 19 consultation occurred in autumn 2023 ¹⁰ and a draft Local Plan was published as part of this consultation ¹¹ . The Wiltshire Local Plan was submitted to the Secretary of State for Housing Communities and Local Government for independent examination in November 2024 ¹² .	The Core Strategy makes provision for at least 42,000 new homes in Wiltshire in the plan period from 2006 – 2026. The new Local Plan seeks to deliver 160ha of new employment land that should deliver 21,300 jobs, and approximately 36,740 new homes ¹³ .	The combined impact of neighbouring authority growth, in-combination with the Local Plan, on air quality, hydrology and public access and disturbance impacts will be considered further in the HRA process.

⁹ Wiltshire Council. Local Plan. Available at: <https://www.wiltshire.gov.uk/planning-policy-core-strategy> [Accessed 05/06/26].

¹⁰ Wiltshire Council (2023) Wiltshire Local Plan Regulation 19 consultation. Available at: <https://www.wiltshire.gov.uk/article/8048/Current-consultation-Reg-19-autumn-2023#FAQs> [Accessed: 7/11/23].

¹¹ Wiltshire Council (2023) Wiltshire Local Plan Pre-Submission Draft 2020-2038 (Regulation 19). Available at: https://www.wiltshire.gov.uk/media/11976/Wiltshire-Local-Plan-Pre-Submission-Draft-2020-2038-Regulation-19/pdf/Wiltshire_Local_Plan_Reg_19_web_accessible_version.pdf?m=1695730562743 [Accessed 06/08/24].

¹² Wiltshire Council (2025) The Local Plan Review. Available at: <https://www.wiltshire.gov.uk/article/8037/The-Local-Plan-review> [Accessed 05/06/26]

¹³ Wiltshire Council (2023) Wiltshire Local Plan Pre-Submission Draft 2020-2038 (Regulation 19). Available at: https://www.wiltshire.gov.uk/media/11976/Wiltshire-Local-Plan-Pre-Submission-Draft-2020-2038-Regulation-19/pdf/Wiltshire_Local_Plan_Reg_19_web_accessible_version.pdf?m=1695730562743 [Accessed 05/06/26].

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Severn River Basin Management Plan (RBMP)	The Severn RBMP was updated in October 2022 ¹⁴ .	The Plan provides an overview of river basin planning in England and Wales for the Severn River Basin District. It includes objectives for each water body and a summary of the measures necessary to reach those objectives.	The RBMP was supported by an HRA ¹⁵ . This concluded that, at the strategic plan level, 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 was no requirement, at this strategic plan level, to progress to the next stage of the HRA (an 'appropriate assessment' to examine the question of adverse effects on the integrity of European sites). The RBMP does not specify exactly where or how measures should be implemented, this will be determined at either a lower-tier plan or project level and this is taken into consideration in the HRA. The HRA also draws on detailed mitigation measures and procedures currently in place. The overall effect of the RBMP is to promote management towards Good Ecological Potential (GEP) and Good Ecological Status (GES).

¹⁴ Environment Agency (2022) Severn River Basin Management Plan summary and cross border catchments. Available at : <https://www.gov.uk/government/publications/severn-river-basin-management-plan-summary-and-cross-border-catchments-england-and-wales/severn-river-basin-management-plan-summary-and-cross-border-catchments-england-and-wales> [Accessed 05/06/26].

¹⁵ Environment Agency (2022) River basin management plan for the Severn River Basin District Habitats Regulations Assessment. Available at: https://assets.publishing.service.gov.uk/media/635247738fa8f554c470abf5/Severn_river_basin_management_plan_2022_HRA.pdf [Accessed 05/06/26].

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Thames River Basin Management Plan (RBMP) ¹⁶	Updated December 2022.	The document summaries changes from the previous RBMP and includes: - An overview of the changes in the state of the water environment - A summary of the progress towards achieving environmental objectives. - Summary of the measures implemented since 2015. - Identifies some of the main changes in the evidence used in the river basin planning.	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.
Thames Water Resources Management Plan (WRMP) ¹⁷	WRMP19 was published in April 2020. In October 2024, WRMP24 was published which builds on WRMP19 ¹⁸ .	The WRMP24 sets out the plan for delivering water for the next 50 years – until 2075 – for the 13,000 square km supplied by Thames Water. It outlines issues threatening water supply such as climate change, and solutions like drought response which help with future water security. The main objectives outlined are secure and wholesome supply, environmental improvement and social benefit, resilience, and cost. The Plan also lists new water source developments such as river abstraction and new reservoirs.	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.
Thames Water Drought Plan ¹⁹	The Thames Water Drought Plan was prepared in 2022.	The Final Drought Plan indicates that Thames Water's security of supply is robust for the next 5 years to achieve protection from 1:100 year to 1:500 year droughts (although to the detriment of the environment).	It is likely that the Drought Plan will have a positive impact for hydrologically sensitive European sites.

¹⁶ Environmental Agency (2022) Thames Basin Management Plan Summary and cross boarder catchment (England and Wales). Available at: <https://www.gov.uk/guidance/thames-river-basin-district-river-basin-management-plan-updated-2022> [Accessed: 05/06/26].

¹⁷ Thames Water (2024) Water Resource Management Plan. Available at: <https://www.thameswater.co.uk/about-us/regulation/water-resources> [Accessed: 06/06/26].

¹⁸ Thames Water (2024) Water resources management plan 2024. Available at: <https://www.thameswater.co.uk/about-us/regulation/water-resources> [Accessed 06/05/26]

¹⁹ Thames Water. Drought Plan 2022 and Drought Plan Addendum. Available at: <https://www.thameswater.co.uk/media-library/home/about-us/regulation/drought-plan/drought-plan-2022/thames-water-drought-plan-2022.pdf> and <https://www.thameswater.co.uk/media-library/home/about-us/regulation/drought-plan/drought-plan-2022/drought-plan-addendum.pdf> [Date Accessed 06/05/26]

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Swindon Local Transport Plan ²⁰	The Swindon Local Transport Plan covers the period 2011 to 2026.	The LTP contains policies to encourage active and sustainable modes of transport including bus, rail, walking and cycling. It also covers behavioural changes and low emission vehicle technology.	The impact of Swindon LTP, in-combination with Local Plan growth, on traffic related air quality will be considered further in the HRA process.
Wiltshire County Council Transport Plan ²¹	Local Transport Plan 4 (LTP4) was adopted in March 2025 and covers the period from 2025 – 2038. It uses a place-based approach to address the needs of three distinct areas: principal settlements, market towns, and rural communities.	LTP4 aims to set the policy direction for transport in Wiltshire and set out how the transport policy relates to other areas. It consists of a core strategy, place-based sub-strategies and county-wide sub-strategies. Issues covered by these sub-strategies include freight, parking, and electric vehicle infrastructure. Some of the objectives of LTP4 include: decarbonising private vehicles; providing safe transport which improves quality of life, health, and wellbeing; promoting more equal and inclusive access to opportunities; maximising sustainable economic growth opportunities by ensuring transport is reliable ²² .	The impact of LTP4, in-combination with Local Plan growth, on traffic related air quality will be considered further in the HRA process.
Wiltshire and Swindon Mineral Core Strategy 2006 – 2026 ²³	2006 – 2026 Adopted in June 2009 It is noted that minerals and waste will form part of the Swindon Local Plan.	This Plan provides a strategic policy framework for the areas of Wiltshire council and Swindon borough council, which sets out the context for sustainable minerals development but forms only one element of the overall mineral and waste development framework. It contains policies to manage the availability, extraction and use of primary, secondary and recycled mineral resources, and also those to protect the natural environment.	Mineral extraction projects have the potential to act in combination with development in the Local Plan to affect air quality and water resources.

²⁰ Swindon Borough Council (2011) Local Transport Plan. Available at: https://www.swindon.gov.uk/downloads/file/5171/swindon_local_transport_plan_2011_to_2026 [Date Accessed 06/05/26]

²¹ Wiltshire Council (2025) Wiltshire Local Transport Plan. Available at: <https://www.wiltshire.gov.uk/article/2676/Wiltshire-Local-Transport-Plan> [Accessed: 06/06/26].

²² Wiltshire Council (2025) Wiltshire Local Transport Plan 4 Executive summary. Available at: https://www.wiltshire.gov.uk/media/15912/LTP4-Executive-Summary/pdf/LTP4_Executive_Summary.pdf?m=1745850494543 [Accessed: 06/06/26].

²³ Wiltshire Council (2009) Wiltshire and Swindon Mineral Core Strategy 2006 – 2026. Available at: <https://www.wiltshire.gov.uk/media/8546/minerals-core-strategy-june-2009/pdf/minerals-core-strategy-june-2009.pdf?m=637804441195500000> [Accessed: 06/06/26].

Plans and policies	Plan status	Summary of housing/employment	Potential in-combination LSE
Wiltshire and Swindon Waste Core Strategy 2006 – 2026 ²⁴	2006 – 2026 Adopted in June 2009	The Waste Core Strategy forms one element of the Wiltshire and Swindon mineral and waste development framework. The strategy considers the key characterises of Wiltshire and Swindon such as population trends, economic performance and landscape importance. The strategy identifies how new facilities will be delivered to meet the associated projected growth in waste arisings. It also identifies future site locations for waste management and the approach to waste management in Wiltshire and Swindon.	Waste management projects have the potential to act in combination with development in the Local Plan to affect air quality and water resources.

²⁴ Wiltshire Council (2009) Wiltshire and Swindon Waste Core Strategy 2006 – 2026. Available at: <https://www.wiltshire.gov.uk/media/8548/waste-core-strategy-july-2009/pdf/waste-core-strategy-2009-july.pdf?m=637804444234270000> [Accessed: 06/06/26].

Appendix B: European Site Conservation Objectives, Qualifying Features, Threats and Pressures

Cothill Fen 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 qualifying natural habitats;
- The structure and function (including typical species) of qualifying natural habitats; and,
- The supporting processes on which qualifying natural habitats rely.

Qualifying features:

H7230. Alkaline fens; Calcium-rich springwater-fed fens

H91E0. Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*); Alder woodland on floodplains*

*denotes a priority habitat or species

Threats and Pressures at European site which may be affected by the Local Plan^{2,3}

- Air pollution – impact of atmospheric nitrogen deposition;
- Habitat connectivity;
- Hydrology.

Hackpen Hill 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 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:

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); Dry grasslands and scrublands on chalk or limestone

S1654. *Gentianella anglica*; Early gentian

¹ Natural England (2018) Cothill Fen SAC Conservation Objective. Available at: <https://publications.naturalengland.org.uk/file/5387395700883456> [Accessed: 25/06/26].

² Natural England (2014) Cothill Fen SAC SIP. Available at: <https://publications.naturalengland.org.uk/file/6571721318465536> [Accessed: 25/06/26].

³ Natural England (2016) Cothill Fen SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012889.pdf> [Accessed: 02506/26].

⁴ Natural England (2018) Hackpen Hill SAC Conservation Objective. Available at: <https://publications.naturalengland.org.uk/file/5348983149166592> [Accessed: 25/06/26].

Hackpen Hill SAC⁴

Threats and Pressures at European site which may be affected by the Local Plan^{5,6}

- Habitat connectivity; and,
- Air quality.

Kennet and Lambourn Floodplain 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:

S1016. *Vertigo moulinsiana*; Desmoulin's whorl snail

Threats and Pressures at European site which may be affected by the Local Plan^{8,9}

- Hydrology

North Meadow and Clattinger Farm 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 qualifying natural habitats
- The structure and function (including typical species) of qualifying natural habitats, and
- The supporting processes on which qualifying natural habitats rely

Qualifying features:

H6510. Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*)

⁵ Natural England (2014) Hackpen Hill SAC SIP. Available at: <https://publications.naturalengland.org.uk/file/6672304073342976> [Date Accessed: 25/06/26].

⁶ Natural England (2019) Hackpen Hill SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030162.pdf> [Date Accessed: 25/06/26].

⁷ Natural England (2018) Kennet and Lambourn Floodplain SAC Conservation Objective. Available at: <https://publications.naturalengland.org.uk/file/5573203527467008> [Date Accessed: 25/06/26].

⁸ Natural England (2014) River Lambourn and Kennet and Lambourn Floodplain SIP. Available at: <https://publications.naturalengland.org.uk/file/5702742270017536> [Date Accessed: 25/06/26].

⁹ Natural England (2019) Kennet and Lambourn Floodplain SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030044.pdf> [Date Accessed: 25/06/26].

¹⁰ Natural England (2018) North Meadow and Clattinger Farm SAC Conservation Objective. Available at: <https://publications.naturalengland.org.uk/file/4953376035176448> [Date Accessed: 25/06/26].

North Meadow and Clattinger Farm SAC¹⁰

Threats and Pressures at a European site which may be affected by the Local Plan^{11, 12}

- Hydrology;
- Public access/ disturbance ;
- Habitat connectivity; and,
- Air quality.

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 European site which may be affected by the Local Plan^{14, 15}

- Habitat connectivity;
- Hydrology; and,
- Air quality.

Pewsey Downs SAC¹⁶

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;

¹¹ Natural England (2014) North Meadow and Clattinger Farm SAC SIP. Available at:
<https://publications.naturalengland.org.uk/file/4896312373805056> [Date Accessed: 25/06/26].

¹² Natural England (2018) North Meadow and Clattinger Farm SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0016372.pdf> [Date Accessed: 25/06/26].

¹³ Natural England (2018) Oxford Meadows SAC Conservation Objectives. Available at:
<https://publications.naturalengland.org.uk/file/5150991062401024> [Date Accessed: 25/06/26].

¹⁴ Natural England (2014) Oxford Meadows SAC SIP. Available at:
<https://publications.naturalengland.org.uk/file/5980083154059264> [Date Accessed: 25/06/26].

¹⁵ Natural England (2019) Oxford Meadows SAC Conservation Objectives Supplementary Advice. Available at:
<https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012845.pdf> [Date Accessed: 25/06/26].

¹⁶ Natural England (2018) Pewsey Downs SAC Conservation Objective. Available at:
<https://publications.naturalengland.org.uk/file/6687829589753856> [Date Accessed: 25/06/26].

Pewsey Downs SAC¹⁶

- 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:

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (important orchid sites); Dry grasslands and scrublands on chalk or limestone (important orchid sites)*

S1654. *Gentianella anglica*; Early Gentian

*denotes a priority natural habitat or species

Threats and Pressures at European site which may be affected by the Local Plan^{17, 18}

- Habitat fragmentation; and,
- Air pollution – impact of atmospheric nitrogen deposition.

River Avon SAC¹⁹

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:

H3260. Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by Water-crowfoot

S1016. *Vertigo moulinsiana*; Desmoulin's whorl snail

S1095. *Petromyzon marinus*; Sea lamprey

S1096. *Lampetra planeri*; Brook lamprey

S1106. *Salmo salar*; Atlantic salmon

S1163. *Cottus gobio*; Bullhead

Threats and Pressures at European site which may be affected by the Local Plan^{20, 21}

¹⁷ Natural England (2015) Pewsey Downs SIP. Available at: <https://publications.naturalengland.org.uk/file/6141388410322944> [Date Accessed: 25/06/26].

¹⁸ Natural England (2019) Pewsey Downs SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012552.pdf> [Date Accessed: 25/06/26].

¹⁹ Natural England (2018) River Avon SAC Conservation Objective. Available at: <https://publications.naturalengland.org.uk/file/5809608165949440> [Date Accessed: 25/06/26].

²⁰ Natural England (2014) River Avon and Valley SIP. Available at: <https://publications.naturalengland.org.uk/file/6247102287970304> [Date Accessed: 25/06/26].

²¹ Natural England (2022) River Avon and Valley SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0013016.pdf> [Date Accessed: 25/06/26].

River Avon SAC¹⁹

- Hydrology; and,
- Disturbance and recreational impacts.

River Lambourn SAC²²

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:

H3260. Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot
S1096. *Lampetra planeri*; Brook lamprey
S1163. *Cottus gobio*; Bullhead

Threats and Pressures at European site which may be affected by the Local Plan^{23, 24}

- Hydrology.

²² Natural England (2018) River Lambourn SAC Conservation Objectives. Available at: <https://publications.naturalengland.org.uk/file/4902613816705024> [Date Accessed: 25/06/26].

²³ Natural England (2014) River Lambourn and Kennet-Lambourn Floodplain SIP. Available at: <https://publications.naturalengland.org.uk/file/5702742270017536> [Date Accessed: 25/06/26].

²⁴ Natural England (2019) River Lambourn SAC Conservation Objectives Supplementary Advice. Available at: <https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030257.pdf> [Date Accessed: 25/06/26].

Appendix C: Screening evaluation of Local Plan policies

The following section of **Appendix C** provides a screening evaluation of policies which comprise the Regulation 19 Local Plan.

Vision and objectives

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
n/a	Vision	The vision for Swindon provides a general statement of policy / general aspirations for the Borough over the Plan period. It sets out aspirations for sustainable development.	Category A	Screen Out
n/a	Strategic objectives	The seven strategic objectives provide a general statement of policy / general aspirations for the Borough around the themes of regeneration, place and belonging, homes for all, economic prosperity, connected communities and sustainable movement, low carbon and health and well-being.	Category A	Screen Out

The Spatial Strategy and Strategic Area Policies

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
SS1	Swindon's Spatial Approach to Growth	This policy sets out the spatial strategy for development in Swindon. Whilst no details regarding development are identified within the policy, it does support development. This policy supports development which has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar. - Recreational impacts – North Meadow and Clattinger Farm SAC.	Category I	Screen in
SS2	Settlement Hierarchy	This policy details the hierarchy of centres based on their role, function and scale. This policy does not directly trigger a change or development which could lead to a LSE at any European site, either alone or in-combination.	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
SDA 01	Swindon's Central Area	This policy sets out development requirements for Swindon's Central Area to deliver at least 3,800 new homes and 6,000 new jobs over the Plan period with an ambition for a total of 8,000 homes over a longer period. It has the potential for LSEs as follows - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 02	Pipers Way Urban Regeneration Area	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver a minimum of 1,144 new homes. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 03	Marlowe Avenue Urban Regeneration Area	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver 500 new homes. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 04	Windmill Hill	This policy sets out development requirements for a strategic development location at Windmill Hill within Swindon's Urban Area, allocating 600 homes over the Plan period. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
SDA 05	Gateway North	This policy sets out development requirements for a strategic development location at Windmill Hill within Swindon's Urban Area, allocating at least 500 new homes over the Plan period. It has the potential for LSEs as follows: Air Quality – North Meadow and Clattinger Farm SAC. Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 06	Wichelstowe	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver up to 1,620 new homes. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 07	New Eastern Villages (NEV)	This policy sets out development requirements for a new strategic growth location at New Eastern Village to deliver up to 8,875 new homes. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 08	Kingsdown	This policy sets out development requirements for a new strategic growth location at Kingsdown to deliver up to 1,818 new homes. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar. - Recreational impacts – North Meadow and Clattinger Farm SAC (within 9.4km Outer Zone of Influence).	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
SDA 09	North Tadpole	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver up to 513 new homes. It has the potential for LSEs as follows: • Air Quality – North Meadow and Clattinger Farm SAC. • Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar. • Recreational impacts – North Meadow and Clattinger Farm SAC (part of the site allocations are within the Inner 4.2km Zone of Influence).	Category L	Screen in
SDA 10	Land adjoining Blunsdon St. Andrew	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver 760 new homes. It has the potential for LSEs as follows: • Air Quality – North Meadow and Clattinger Farm SAC. • Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 11	Land at Highworth	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver 803 new homes. It has the potential for LSEs as follows: • Air Quality – North Meadow and Clattinger Farm SAC. • Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SDA 12	Land at Wroughton	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver up to 595 new homes. It has the potential for LSEs as follows: • Air Quality – North Meadow and Clattinger Farm SAC. • Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
SDA 13	Land at Broad Blusdon	This policy sets out development requirements for a new strategic growth location at Wichelstowe to deliver a minimum of 345 new homes. It has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar.	Category L	Screen in
SD1	High Quality Design	This policy sets out design principles for new development. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD2	Effective Use of Land	This policy sets out requirements in terms of the effective use of land. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD3	Mixed-Use Development	This policy sets out design requirements for mixed use development. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD4	Inclusive Design	This policy sets out requirements to ensure design of development is inclusive. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD5	Tall Buildings	This policy sets out requirements for the design of tall buildings. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD 6	Residential Extensions and Alterations	This policy sets out requirements for the design of residential extensions and alterations within the villages and countryside. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD7	Historic Environment	This policy sets out requirements to protect and enhance heritage assets, conservation areas, scheduled monuments and assets of archaeological significance. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
SD8	Heritage Transport	This policy sets out requirements to safeguard heritage transport including canals and heritage railways. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Housing

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
HC1	Meeting Local Housing Needs	This policy outlines the housing requirement to provide at least 1,203 dwellings per annum, or 24,060 dwellings across the 20-year plan period.	Category L	Screen in
HC2	Housing Tenures and Sizes	This policy outlines the requirement to provide mixed tenures and house sizes in accordance with the local housing need. This policy will not lead to development or any chance which may have an LSE on any European site.	Category F	Screen out
HC3	Affordable Housing	This policy sets out requirements for affordable housing in the Borough. This policy will not lead to development or any chance which may have an LSE on any European site.	Category F	Screen out
HC4	Accessible Housing	This policy sets out requirements for accessible and adaptable housing in the Borough. This policy will not lead to development or any chance which may have an LSE on any European site.	Category F	Screen out
HC5	Specialist Housing including Housing for older people	This policy sets out requirements for specialist housing in the Borough. This policy will not lead to development or any chance which may have an LSE on any European site.	Category F	Screen out
HC6	Houses in Multiple Occupation and Sub Division	This policy sets out the circumstances where HMO would be supported. This policy will not lead to development or any chance which may have an LSE on any European site.	Category F	Screen out
HC7	Rural Exception Sites and Rural Workers' Dwellings	This policy defines, outlines and sets out the requirements for development outside settlement boundaries and within countryside locations, including: affordable housing schemes, community-led development and rural workers' dwellings. This policy will not lead to development or any chance which may have an LSE on any European site.	Category F	Screen out
HC8	Custom and self build housing	This policy sets out a proposal for self-build and custom-build housing in compliance with Local Plan policies. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
HC9	Gypsy, traveller and travelling showpeople Accommodation	This policy sets out the requirements for provision of additional gypsy, traveller and travelling showpeople pitches with 35 new permanent pitches for Gypsy and Travellers and 19 new plots for Travelling Showpersons across the plan period, allocating 3 sites. This has the potential for LSEs as follows: Air Quality – North Meadow and Clattinger Farm SAC.	Category L	Screen in

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
		- Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severy Estuary SAC, SPA and Ramar. - Recreational impacts – North Meadow and Clattinger Farm SAC.		

Employment and Town Centres

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
E1	Economic Strategy and Meeting Employment Needs	This policy sets out the Council's strategy for supporting sustainable economic growth and meeting the Borough's employment needs. It provides for additional office, industrial and warehousing floorspace and sets out the spatial approach for directing new employment development. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
E2	New Employment Sites	This policy allocates a number of new employment sites across Swindon to meet the e identified in Policy E1, including provision for office, research and development, industr and data centre uses. The policy has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severn Estuary SAC, SPA and Ramar.	Category L	Screen in
E3	Designated Employment Areas	This policy protects designated employment areas for employment uses and related functions and supports the intensification, redevelopment and modernisation of premises for employment uses. It also safeguards Swindon Sewage Treatment Works as strategic utilities infrastructure. The policy has the potential for LSEs as follows: - Air Quality – North Meadow and Clattinger Farm SAC. - Hydrology (water quality and water quantity) – Cothill Fen SAC, Kennet and Lambourn Floodplain SAC, North Meadow and Clattinger Farm SAC, Oxford Meadows SAC, River Lambourn SAC and the Severn Estuary SAC, SPA and Ramar.	Category L	Screen in
E4	Employment, Skills and Training	This policy sets out learning and skills requirements for new development. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
E5	Network and Hierarchy of Centres	This policy details the hierarchy of centres based on their role, function and scale. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
E6	Development in Town Centres, District / Rural Centres and Local Shopping Parades	This policy sets out requirements for development in these centres to ensure a suitable mix of uses. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
E7	Evening, Night-time and Cultural Economy	This policy sets out circumstances where evening, night-time and cultural developments will be supported. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out

Transport

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
ST1	Spatial Vision: A Well-Connected Swindon	This policy sets out a strategic vision for a sustainable and well-connected transport system for Swindon, including improvements to public transport, active travel and the road network. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
ST2	Promoting Sustainable Transport	This policy sets out requirements for new development in terms of sustainable transport, including active travel. This policy does not directly trigger a change or development which could lead to a likely significant effect at any European site, either alone or in-combination.	Category F	Screen out
ST3	Accessibility and Development	This policy sets out requirements for ensuring that new development is accessible by a range of transport modes and supports sustainable transport objectives, including walking, cycling and public transport. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
ST4	Transport Infrastructure Design	This policy sets out design principles for transport infrastructure, including facilities for walking and cycling, traffic management measures, green infrastructure integration and active travel routes. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
ST5	Improving Public Transport	This policy supports priorities for public transport over the Plan period focusing improvements on bus and railway infrastructure. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
ST6	Highway Improvement	This policy identifies key highway improvements required to support development across the Borough, including junction, access and road infrastructure improvements. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
ST7	Freight and Logistics	This policy sets out the Council's commitment to ensuring a coordinated approach to supporting sustainable freight movement, including a transition to rail freight where practical. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
ST8	Transport Assessments, Transport Statements and Travel Plans	This policy sets out the requirement for new development to provide Transport Assessments, Transport Statements and Travel Plans. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
ST9	Parking, and Electric Vehicle Management	This policy requires new development to demonstrate how it will support and encourage sustainable modes of transport. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Environment and Climate

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
CSE1	Mitigation and Adaptation to Climate Change	This policy sets out requirements for development proposals to address climate change through mitigation and adaptation measures, including reducing carbon emissions, improving energy efficiency and incorporating measures to improve resilience to future climate risks. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category D	Screen out
CSE2	Carbon Reduction and Sustainable Design in new development	This policy sets out requirements for carbon reduction and sustainable design. This policy is an environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out
CSE3	Whole Life Carbon Assessments (WCLA)	This policy sets out the requirements for WCLA for large scale major developments, and defines these, and encourages major developments to undertake a WCLA. This policy is an environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out
CSE4	Adaptive Reuse and Retrofit	This policy encourages the adaptive reuse and retrofit of existing buildings and assets, including vacant and underutilised buildings and heritage assets, to reduce the need for new construction and associated embodied carbon emissions. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category D	Screen out
CSE5	Renewable Energy	This policy supports proposals for renewable and low-carbon energy generation and associated infrastructure, subject to consideration of potential impacts on landscape, biodiversity, the historic environment, residential amenity and the highway network. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category D	Screen out
CSE6	Green Infrastructure in New Developments	This policy seeks to protect, maintain and where possible enhance green infrastructure in the Borough in line with the Council's adopted Green Infrastructure Strategy. This policy is an environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out
CSE7	The Green Infrastructure Network	This policy sets out protections for the Green Infrastructure Network. This policy is an environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out
CSE8	Great Western Community Forest	This policy protects the Great Western Community Forest. This policy is an environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
CSE9	Woodland, Trees and Hedgerows	This policy outlines the requirements of development to protect, enhance and integrate visually or ecologically important trees, hedges and woodlands. It sets out the aim for development to achieve future canopy cover of 25% of the site through retaining existing and planting new trees. If this cannot be achieved onsite, the policy sets out the requirements for offsite provision. This policy is a plan-wide environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out
CSE10	Landscape	This policy is intended to protect and enhance the features and unique characteristics of the landscapes that make up the borough. This policy is a plan-wide environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category D	Screen out
CSE11	Biodiversity, Geodiversity and Nature Recovery	This policy outlines the requirements for development proposals in terms of how to protect and enhance biodiversity and ecological networks. This policy also sets out the requirements to deliver the North Meadow and Clattinger Farm SAC Interim Mitigation Strategy. This policy implements a bespoke package of mitigation intended to reduce adverse recreational impacts upon the SAC. In addition, this policy requires the protection of water quality within the River Lambourn SAC catchment in terms of increased nutrient discharge from new development.	Category M	Screen in
CSE12	Managing flood risk	This policy sets out requirements in terms of flood risk from new development. It also implements requirements for Sustainable Drainage Systems and buffers. This policy is a plan-wide environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category M	Screen in
CSE13	Protection and Enhancement of the Water Environment	This policy sets out requirements for the protection and enhancement of river corridors and watercourses, including requirements for development adjacent to watercourses, buffer zones, de-culverting and the protection of watercourse functions and conditions.	Category M	Screen in
CSE14	Unstable Land	This policy sets out the requirements for development on unstable land. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
CSE15	Contaminated Land	This policy sets out the requirements for the development of contaminated sites. This policy is a plan-wide environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
CSE16	Pollution	This policy sets out measures to reduce nuisance from pollution (such as noise, vibrations, air quality, odour, fumes and dust pollution). This policy is a plan-wide environmental protection policy and will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Health and Wellbeing

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
HL1	Health Impact Assessments	This policy sets out the requirements for major developments to positively design and create healthy places and outlines the requirements for Health Impact Assessments. This policy will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
HL2	Concentration of Uses	This policy seeks to reduce health inequalities, nuisance and impacts on residential amenity by controlling the concentration and location of certain uses, including betting shops, adult gaming centres, fast food outlets and pawnbrokers. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
HL3	Protecting Open Spaces, Sports and Recreational Facilities	This policy sets out provisions to protect open space. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
HL4	Open Space in New Development	This policy sets out the requirements for new development to provide public open space. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
HL5	Child Friendly Places and Play	This policy sets out the requirements for new development to provide child friendly places to play. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
HL5	Community Facilities	This policy sets out the requirements for new development to provide community, education and health infrastructure depending on the scale of development. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out
INF1	Infrastructure and Developer Contributions	This policy sets out requirements for development to provide or contribute towards the infrastructure required to support it, including the mechanisms through which infrastructure will be secured and delivered. This policy does not directly trigger a change or development which could lead to an LSE at any European site, either alone or in-combination.	Category F	Screen out
INF2	Wastewater and Sewage Infrastructure and Water Supply	This policy sets out requirements for new development to ensure there is adequate water supply and sewerage infrastructure capacity both on and off the site to serve the development. It also sets out requirements for water efficiency. It will not lead to development or any change which may have an LSE on any European site.	Category M	Screen in
INF3	Digital Connectivity and Telecommunications	This policy sets out requirements for digital communication provisions at new development. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Policy number	Policy name	Justification: Activities that may result in an LSE on a European site	Screening category	HRA screening
INF4	Energy Networks	This policy sets out requirements for new development to connect to energy networks. It will not lead to development or any change which may have an LSE on any European site.	Category F	Screen out

Appendix D: Local Plan Allocation Screening Evaluation

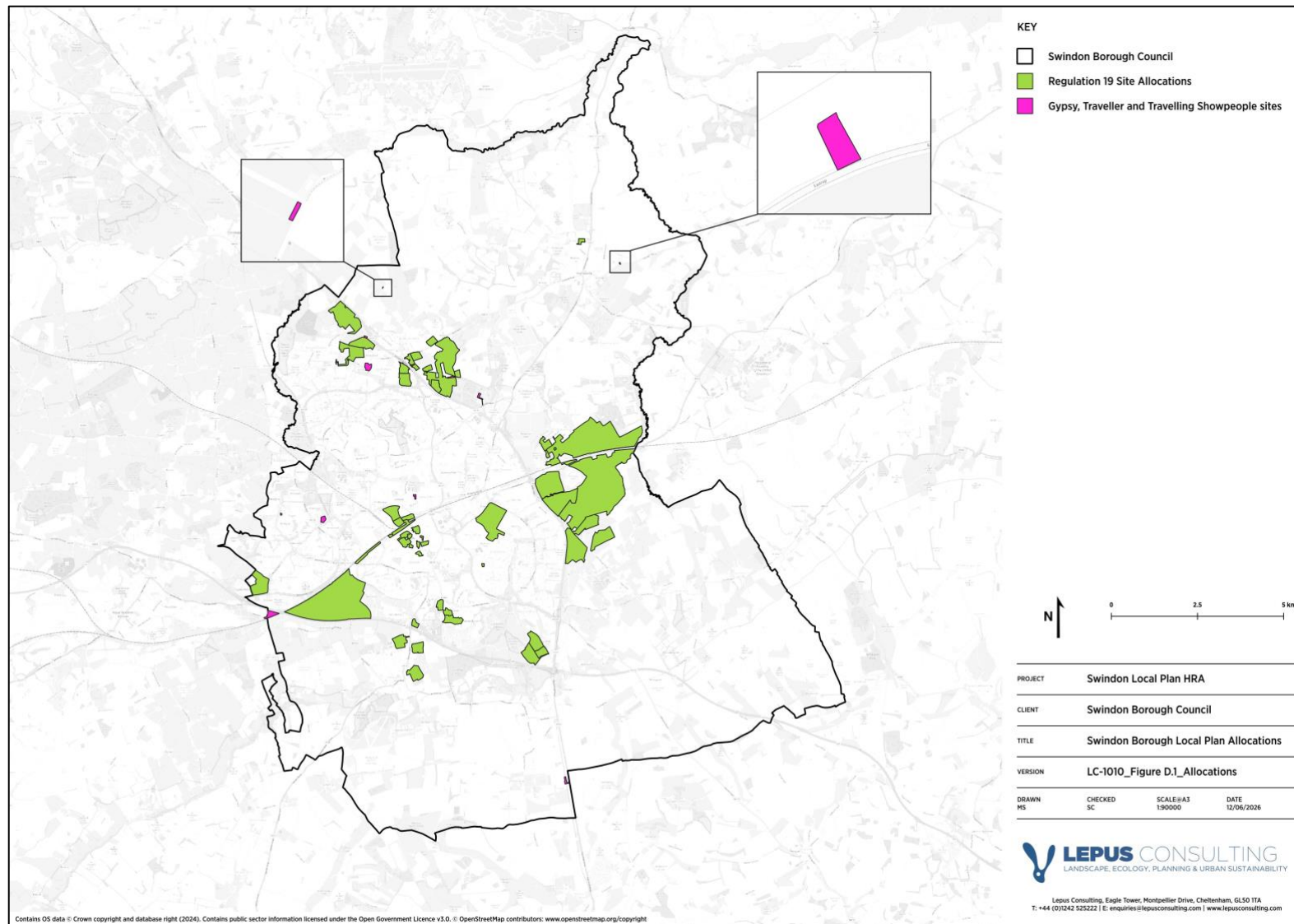


Figure D.1: Site allocations location plan

Table Notes:

Air Quality LSEs: All site allocations set out in the Local Plan have the potential to act cumulatively and in-combination with other plans and projects (see **Appendix A**) to increase traffic flows on the local and wider road network. An increase in traffic related emissions has the potential to change air quality at European sites. Air quality Likely Significant Effects (LSEs) are considered possible at North Meadow and Clattinger Farm SAC. As growth at all allocations (listed below) contributes towards a change in air quality, all allocations below have been screened in under Category L.

Water Quality and Quantity LSEs: **Table D.1** below screens impacts associated with the River Lambourn SAC nutrient neutrality catchment area. All site allocations set out in the Local Plan (including those listed below) have the potential to act cumulatively with one another and in-combination with other plans and projects to increase the quantity of water required for treatment at Wastewater Treatment Works (WwTWs). This may result in the deterioration of downstream water quality. In addition, new development set out in the Local Plan will increase demand for water supply which may also affect water levels at hydrologically sensitive European sites. Taking a precautionary approach, hydrology impacts from the combined effect of all developments together, acting in-combination with other plans and projects (see **Appendix A**), have the potential to result in LSEs at hydrologically connected European sites listed in **Table 3.2** of the Regulation 18 HRA report. Water quality and quantity impacts at all allocations listed below have therefore been screened in under Category L.

Recreational LSEs: **Table D.1** screens recreational LSEs for each potential allocation drawing on Zones of Influence set out in the North Meadow and Clattinger Farm SAC Interim Recreational Mitigation Strategy (2023 - 2028). No allocations are situated within 400m of any European sites and therefore urbanisation effects can be discounted.

Table D.1: Screening evaluation of site allocations (Clattinger and North Meadow SAC recreational LSEs and River Lambourn nutrient neutrality LSEs only)

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
Central Area					
CA04	s0025	Bristol Street Car Park	Residential 0.9ha 102 units	No	No
CA01	s0099c	North Star (Oasis Leisure Centre)	Residential, Leisure, Sports and Industrial 7 ha 550 units	No	No
CA02	s0480 and s0564	North Star House	Residential 420 units	No	No
CA05	s544a	Brunel Quarter	Residential-led 1,016 units	No	No
CA09	s0102	Kimmerfields	Residential, entertainments venue, offices 450 units 20,000 sqm	No	No
CA10	C25.002	Regent's Circus	Residential 250 units	No	No
CA11	UCS.0168	Granville Street Car Park	Residential 130 units	No	No

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
CA12	UCS.0617 and s0564	Polaris House	Residential 900 units	No	No
CA14	UCS.0904 and UCS.0173 and UCS.0623 and UCS.0624 and UCS.0622	Bridge Street/Fleet Street regeneration area	Residential led 200 units 10,000 sqm	No	No
CA13	UCS.0959	Civic Campus	Residential and Civic hall 115 units	No	No
CA08	UCS.0960	Spring Gardens Car Park	Residential 0.3ha 60 units	No	No
CA06	s0508	The Parade	Residential-led with town centre uses 2ha 245 units	No	No
CA07	s0519	Regents Place (including Wyvern)	Residential + Mixed-use and community uses 262 units	No	No
CA03	s0433	Swindon Station Redevelopment	Offices 44,000 sqm	No	No
	New Eastern Villages				

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
NEV01	s0111and s0112	Thornhill Industrial Estate and Crown Timber	Residential 128 units	No	No
NEV02	s0001	Great Stall West (allocation only)	Residential-led, offices and industrial 700 units 8,000 sqm	No	No
NEV03	s0440	Upper Lotmead	Residential 300 units	No	No
NEV04	s0565	Land at South Marston and Rowborough (allocation)	Residential-led mixed use 2,380 units 1000 sqm	No	No
NEV05	s0373	Great Stall East and Lotmead	Residential-led mixed use 4,050 units	No	No
NEV06	s0439	Green Land	Residential 275 units	No	No
NEV07	s0371	Foxbridge Village	Residential-led mixed use 540 units	No	No
NEV08	s0372 and s0442	Redlands	Residential 450 units	No	No
NEV09	C25.024	Oxleaze Farm	Residential 40 units	No	No

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
NEV10	L25.009	Manor Farmyard	Residential 6 units	No	No
NEV11	s0073	Land north of A420	Residential 6 units	No	No
GN01	C25.007	Vygon	Residential and Industrial 250 units	Yes – Outer ZOI	No
GN02	s0401	Land North of Latham Road	Residential 250 units	Yes – Outer ZOI	No
	Kingsdown				
KSD03	SGL 03	Kingsdown	Residential-Led, Mixed Use 1,552 units	Yes – Outer ZOI	No
KSD01	s0375	Land North of Kingsdown Lane	Residential 77 units	Yes – Outer ZOI	No
KSD02	s0380	Kingsdown Nurseries (Turleys)	Residential 64 units	Yes – Outer ZOI	No
KSD04	s0107	Kingsdown (Turnpike Road land)	Residential 125 units	Yes – Outer ZOI	No
	Wichelstowe				
WS01	SGL 03	Wichelstowe	Residential-led Mixed Use 1,620. units	No	No
	North Tadpole				

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
NT01	s0030c, s0106b and s0528	Lower Widhill Farm and Land off Tadpole Farm	Residential and mixed-led use 513 units	Yes – half the site is located within the Inner ZOI and half within the Outer ZOI	No
	East Wroughton				
WR01	s0072	Land east of Swindon Road, Wroughton (South)	Residential 191 units	No	No
WR03	s0114	Land at North Wroughton	Residential 104 units	No	No
WR02	s0427b	Akers Land (western side)	Residential 300 units	No	No
WH01	C25.028	Windmill Hill	Residential-led mixed use 600 units	No	No
	Marlowe Avenue				
MA01	s0542	Marlowe Avenue Regeneration Area	Residential 500 units	No	No
	Pipers Way				
PW01	C25.019	Marlborough Park	Residential 300 units	No	No
PW03	UCS.0022	Intel	Residential 276 units	No	No

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
PW02	s0501b	Wakefield House	Residential 228 units	No	No
PW04	s0297	Former Wroughton Park and Ride site	Residential 340 units	No	No
	Non-strategic area sites				
SUA03	s0532	Land west of Shaw Village Centre	Residential 6 units	Yes – Outer ZOI	No
SUA04	n/a	Drake's Meadow	Offices 2,000 sqm	No	No
HW01	s0042	Land at Pentylands Lane / Crane Furlong	Residential 53 units	No	No
HW02	C25.041 and s0467	Roundhills	Residential 250 units	No	No
HW03	s0518 and C25.047	12 Oaks Golf Course	Residential 500 units	No	No
SUA01	s0097	Newburn Sidings	Residential 203 units	No	No
SUA02	s0527	Site of former Whitbourne House care home	Residential 37 units	No	No

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
BA01	L25.020 and s0032d	Land at Grove Farm	Residential 410 units	Yes – Outer ZOI	No
BA02	s0529a (part)	Upper Windhill Farm	Residential 350 units	Yes – Outer ZOI	No
BB01	s0050b	Land at Sams Lane (southern part) (Turley)	Residential 115 units	Yes – Outer ZOI	No
BB02	s0062	Land south of Highworth Road, Blunsdon	Residential 89 units	Yes – Outer ZOI	No
BB03	s0460	Land at 12 Turnpike Rd, Blunsdon (Marrons / Bellway Homes)	Residential 48 units	Yes – Outer ZOI	No
BB04	s0036	Land at Turnpike Rd, Blunsdon	Residential 93 units	Yes – Outer ZOI	No
	Gypsy and Traveller Sites				
Q01	n/a	Chiseldon Firs	n/a	No	No
Q02	n/a	Hay Lane	n/a	No	No
Q03	n/a	Lady Lane Caravan Park	n/a	Yes – Outer ZOI	No
Q04	n/a	Hyde Farm Caravan Park	n/a	Yes – Outer ZOI	No
Q05	n/a	Kingsdown Road Caravan Park	n/a	Yes – Outer ZOI	No
Q06	n/a	Ferndale Road	n/a	No	No

Reg 19 Ref	Site reference	Site name	Allocation details	Located within Clattinger and North Meadow SAC recreational zone of influence?	Allocation within River Lambourn SAC nutrient neutrality catchment area
Q07	n/a	High View, Eastrop	n/a	No	No
Q08	n/a	The Workshop, Kingsdown Lane	n/a	Yes – Outer ZOI	No
Q09	n/a	Upper Widhill Farm	n/a	Yes – Outer ZOI	No
Q10	n/a	Front Lane	n/a	Yes – Outer ZOI	No
n/a	n/a	Rivermead	n/a	Yes – Outer ZOI	No

Habitats Regulations Assessments

Sustainability Appraisals

Strategic Environmental Assessments

Landscape Character Assessments

Landscape and Visual Impact Assessments

Green Belt Reviews

Expert Witness

Ecological Impact Assessments

Habitat and Ecology Surveys

Biodiversity Net Gain



© Lepus Consulting Ltd

Eagle Tower

Montpellier Drive

Cheltenham

GL50 1TA

T: 01242 525222

E: enquiries@lepusconsulting.com

www.lepusconsulting.com

CHEL TENHAM



Lepus Consulting
Eagle Tower
Montpellier Drive
Cheltenham
Gloucestershire GL50 1TA

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