Habitats Regulations Assessment of the Sandwell Local Plan

Regulation 19

September 2024

LEPUS CONSULTING
LANDSCAPE, ECOLOGY, PLANNING & URBAN SUSTAINABILITY

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Regulation 19 Consultation

Habitats Regulations Assessment

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Contents

Tables

Figures

Acronyms & Abbreviations

AA	Appropriate Assessment
AADT	Annual Average Daily Traffic
A-dep	Acid deposition
AIOSI	Adverse Impact on Site Integrity
ALS	Abstraction License Strategy
APIS	Air Pollution Information System
BCCS	Black Country Core Strategy
BCP	Black Country Plan
CAMS	Catchment Abstraction Strategy
CIEEM	Chartered Institute of Ecology and Environmental Management
CJEU	Court of Justice of the European Union
CRT	Canal and Rivers Trust
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DTA	David Tyldesley and Associates
EA	Environment Agency
EP	Environmental Permits
GCN	Great Crested Newt
GIS	Geographic Information System
HDV	Heavy Duty Vehicle
HRA	Habitats Regulations Assessment
IAQM	Institute of Air Quality Management
IRZ	Impact Risk Zone
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
LEV	Low Emission Vehicle
LPA	Local Planning Authority
LSE	Likely Significant Effect
LTP	Local Transport Plan
MOU	Memorandum of Understanding
N-dep	Nitrogen deposition
NH_3	Ammonia
NOx	Nitrogen oxides
NPPF	National Planning Policy Framework
PEBR	Planning Evidence Base Review

ppSPA	Possible Potential Special Protection Area
PRoW	Public Right of Way
pSAC	Potential Special Area of Conservation
RAP	Recommended Assessment Point
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SAMMS	Strategic Access Management and Monitoring Strategy
SIP	Site Improvement Plan
SLP	Sandwell Local Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SSW	South Staffordshire Water
STW	Severn Trent Water
SuDS	Sustainable Urban Drainage
SWMC	Surface Water Management Catchment
UK	United Kingdom
WCS	Water Cycle Study
WFD	Water Framework Directive
WRMP	Water Resource Management Plan
WRZ	Water Resource Zone
WwTW	Wastewater Treatment Works
ZOI	Zone of Influence

1 Introduction

1.1 Background

1.1.1 Sandwell Metropolitan Borough Council (the Council) is currently preparing the Sandwell Local Plan (SLP). This will contain strategic and non-strategic planning policies and land allocations intended to support growth in Sandwell over the plan period to 2041. The SLP contains a Vision for Sandwell which is underpinned by strategic objectives and priorities. Planning policies set out in the SLP will guide land use and development across the Borough and set standards for growth and transformation.

1.1.2 The SLP will cover the Council's administrative area, consisting of the six historic former boroughs of Sandwell (Oldbury, Rowley Regis, Smethwick, Tipton, Wednesbury and West Bromwich). This area is referred to hereafter as the 'Plan area' and is illustrated in **Figure 1.1**.

1.1.3 Once adopted, the SLP will form part of the statutory development plan for the borough covering the period to 2041, replacing and updating the following:

- The Black Country Core Strategy (BCCS)[1]
- The Sandwell Site Allocations and Delivery Development Plan Document (adopted 2012)[2]
- The Smethwick Area Action Plan (adopted 2008)[3]
- The Tipton Area Action Plan (adopted 2008)[4]
- The West Bromwich Area Action Plan (adopted 2012)[5]

1.1.4 To date, the Council has undertaken two consultation exercises as part of the plan making process: Issues and Options[6] (February–March 2023) and Draft Sandwell Local Plan[7] (November–December 2023). The responses to these consultations have informed the Publication SLP at Regulation 19.

[1] Black Country Authorities (2011) Black Country Core Strategy 2011-2026. Available at: https://www.sandwell.gov.uk/downloads/file/771/black-country-core-strategy-main-document- [Accessed 18/06/24]

[2] Sandwell Metropolitan Borough Council (2012) Sandwell Site Allocations and Delivery Development Plan Document. Available at: https://www.sandwell.gov.uk/downloads/file/773/sandwell-site-allocations-and-delivery-dpd-sad- [Accessed 18/06/24]

[3] Sandwell Metropolitan Borough Council. (2008) Smethwick Area Action Plan: A Development Plan Document. Available at: https://www.sandwell.gov.uk/downloads/file/245/smethwick-aap [Accessed 18/06/24]

[4] Sandwell Metropolitan Borough Council. (2008) Tipton Area Action Plan: A Development Plan Document. Available at: https://www.sandwell.gov.uk/downloads/file/252/tipton-aap [Accessed 18/06/24]

[5] Sandwell Metropolitan Borough Council. (2012) West Bromwich Area Action Plan 2012. Available at: https://www.sandwell.gov.uk/downloads/file/254/west-bromwich-aap-part-1- [Accessed 18/06/24]

[6] Sandwell Metropolitan Borough Council. (2023) Sandwell Local Plan Issues and Options Consultation Documents. Available at: https://www.sandwell.gov.uk/downloads/download/382/sandwell-local-plan-issues-and-options-consultation-documents [Accessed 10/06/24]

[7] Sandwell Metropolitan Borough Council. (2023) Consultations. Available at: https://sandwell.oc2.uk [Accessed 10/06/24]

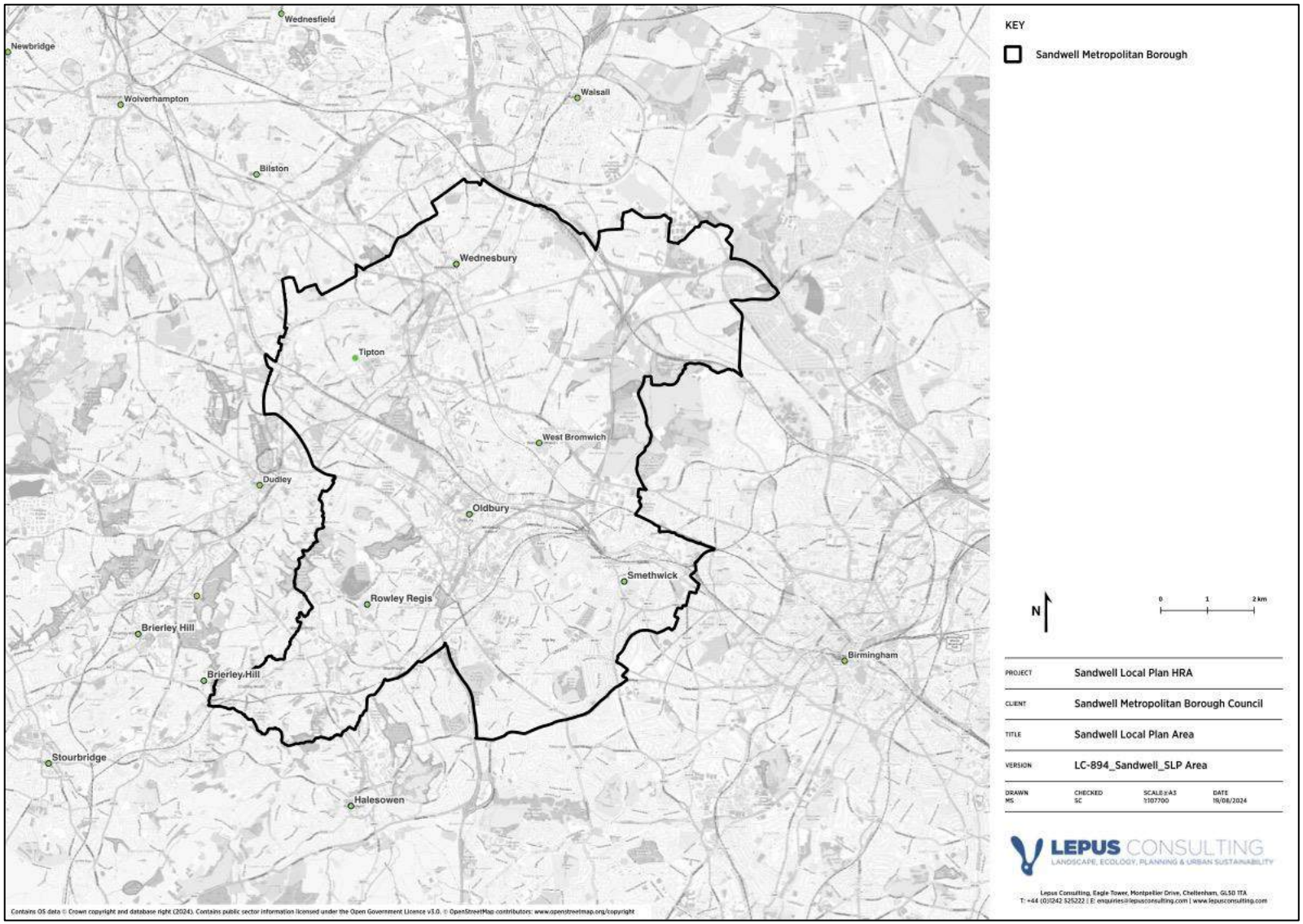

Figure 1.1: *Sandwell Local Plan area*

1.2 Habitats Regulations Assessment

1.2.1 The application of HRA to land-use plans is a requirement of the Conservation of Habitats and Species Regulations 2017 (as amended)[8]. HRA applies to plans and projects, including all Local Development Documents in England and Wales.

1.2.2 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, Regulation 105 of 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 a Habitats Regulations Assessment (HRA).

1.2.3 The Habitats Regulations[9] 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. In addition, policy in England and Wales notes that the following sites should also be given the same level of protection as a European site[10]:

- A potential SPA (pSPA)
- A possible / proposed SAC (pSAC)
- Listed and proposed Ramsar Sites (wetland of international importance)
- In England, sites identified or required as compensation measures for adverse effects on statutory European sites, pSPA, pSAC, and listed or proposed Ramsar sites.

[8] The 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.

[9] 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.

[10] Department for Levelling up, Housing and Communities & Local Government (2023). National Planning Policy Framework. Para 187.

1.3 Previous HRA work

1.3.1 The Black Country Core Strategy[11] (BCCS, 2011) was produced and adopted by the four Black Country authorities of Dudley, Sandwell, Walsall and Wolverhampton. It covers the period up to 2026. The four authorities began a review of the BCCS in 2016, to roll forward the Plan and address changes that had taken place since 2011. This review was supported by a detailed evidence base including HRA work. In autumn 2022 the authorities decided not to take forward the Black Country Plan (BCP) review and instead pursue separate strategic plans and progress differing approaches to site allocations to meet identified needs. The evidence collated as part of the BCP review, draft BCP policies and responses to consultation on these remains relevant to the SLP. The Draft BCP consultation was accompanied by an HRA which included a preliminary screening and made recommendations to inform policy wording[12]. The HRA identified Likely Significant Effects (LSEs) associated with air quality, hydrology, public access and disturbance and habitat loss / fragmentation impact pathways at a number of European sites. The initial findings provide useful baseline information for this HRA.

1.3.2 The Sandwell Local Plan Issues and Options Review[13] was supported by an HRA, prepared in early 2023, which included a preliminary screening of issues and options and made recommendations to inform policy wording[14]. The HRA identified LSEs associated with air quality, hydrology and functionally linked habitat at a number of European sites.

1.3.3 In Autumn 2023, the Council sought views on the direction of the Draft SLP through a Regulation 18 consultation. An HRA was produced in support of the Draft SLP and provided a screening of allocations and policies for consultation. The consultation also set out further stages of HRA work and the HRA provided a preliminary AA[15]. The Draft SLP HRA identified possible impacts at the following European sites:

- Cannock Extension Canal SAC – air quality and water quality/quantity LSEs;
- Ensor's Pool SAC – water quality/quantity LSE;
- Fens Pools SAC – air quality and water quality/quantity LSEs;
- Humber Estuary SAC – water quality/quantity LSE;
- Humber Estuary SPA – water quality/quantity LSE;
- Humber Estuary Ramsar – water quality/quantity LSE;
- River Mease SAC – water quality/quantity LSE;
- Severn Estuary SAC – water quality/quantity LSE;

[11] Dudley Metropolitan Borough Council, Sandwell Metropolitan Borough Council, Walsall Council, Wolverhampton City Council (2011) Black Country Core Strategy. Available at: https://blackcountryplan.dudley.gov.uk/media/11559/core-strategy-12-final.pdf [Accessed 19/08/24].

[12] Lepus Consulting. July 2021. Habitats Regulations Assessment of the Black Country Plan. Interim HRA to support the plan making process. Available at: https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/ [Accessed: 27/07/24].

[13] Sandwell Metropolitan Borough (2023) Sandwell Local Plan Issues and Options Review Public Consultation 6th February – 20th March 2023. Available at: https://www.sandwell.gov.uk/downloads/file/895/sandwell-local-plan-issues-and-options-main-document [Accessed 19/08/24].

[14] Lepus Consulting (January 2023) Habitats Regulations Assessment of the Sandwell Local Plan. Issues and Options Consultation. Preliminary HRA Report.

[15] Lepus Consulting (October 2023) Draft Sandwell Local Plan Regulation 18: Habitats Regulations Assessment.

- Severn Estuary SPA – water quality/quantity LSE; and,
- Severn Estuary Ramsar – water quality/quantity LSE.

1.3.4 Natural England was consulted on the Draft SLP HRA and welcomed the consideration of issues set out in the HRA report[16].

1.4 Purpose of this report

1.4.1 Lepus Consulting has prepared this report to inform the HRA of the Regulation 19 SLP on behalf of Sandwell Metropolitan Borough Council (the Council). The Council, as the Competent Authority, will have responsibility to make the Integrity Test. This can be undertaken in light of the conclusions set out in this report, having regard to representations made by Natural England under the provisions of the Habitats Regulations.

1.4.2 This HRA report has been prepared in accordance with the Habitats Regulations and has been informed by the following guidance:

- Planning Practice Guidance: Appropriate Assessment[17]; 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').

[16] Natural England (2023) Consultation: Sandwell Local Plan – Issues and Options. 20 March 2023. [Letter].

[17] Department for Levelling Up, Housing and Communities (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

2 Methodology

2.1 Overview

2.1.1 HRA is a rigorous precautionary process centred around the conservation objectives of a European site's qualifying interests. 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 outputs from Stage 1 and Stage 2 of the HRA process.

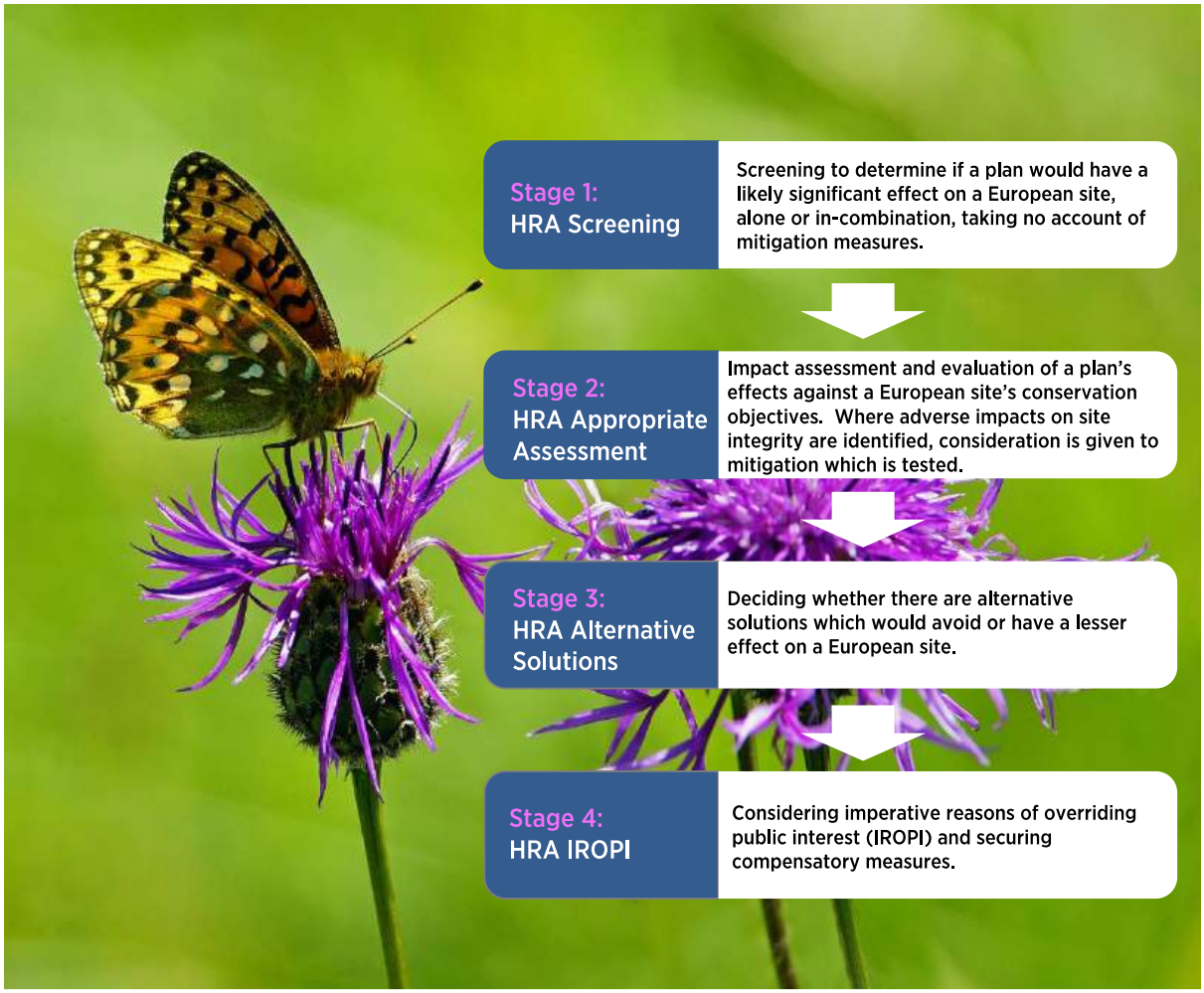

Figure 2.1: *Stages in the Habitats Regulations Assessment process*[18]

[18] Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (January) (2021) 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 (see **Figure 2.1**). 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 an LSE at a European site, either alone or in-combination with other plans or projects.

2.2.2 Screening was undertaken of the Draft SLP which concluded that it had the potential to have LSEs on a number of European sites. It therefore concluded that the SLP would be screened into the HRA process, and an AA would be required (Stage 2 **- Figure 2.1**).

2.2.3 Where elements of the SLP have been updated in response to the Regulation 18 consultation, these components have been re-screened to determine whether the Publication SLP is likely to have an LSE alone or in-combination. The codes set out in **Table 2.1** are used to inform the formal screening decision (Column 2). The results of this re-screening exercise are presented in **Chapter 4** of this report.

Table 2.1: Screening evaluation and reasoning categories from Part F of the DTA Handbook[19]

Screening evaluation and reasoning categories from Chapter F of the Habitats Regulations Assessment Handbook (DTA Publications, 2013):	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 Out
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

19 Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (December) (2019) edition UK: DTA Publications Limited. Available at: http://www.dtapublications.co.uk/ [Accessed: 10/01/24].

Screening evaluation and reasoning categories from Chapter F of the Habitats Regulations Assessment Handbook (DTA Publications, 2013):		Screen in / 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-323/17[20]) 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 SLP 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.

2.3 In-combination effects

2.3.1 Should screening conclude there are no LSEs from the SLP alone, it is necessary to then consider whether the effects of the SLP in-combination with other plans and projects would combine to result in an LSE on any European site. It may be that the SLP alone will not have an LSE but could have a residual effect which may contribute to in-combination LSEs on a European site. The in-combination assessment is compliant with the Wealden Judgement (2017)[21].

2.3.2 Plans and projects which are considered to be of most relevance to the in-combination assessment of the SLP include those that have similar impact pathways (see **Appendix A**). These include those plans and projects which have the potential to increase development in the HRA study area including the following Local Planning Authority (LPA) local development plans:

- Birmingham City Council[22]
- Bromsgrove District Council[23]
- City of Wolverhampton Council[24]

[20] InfoCuria (2018) Case C-323/17. Available at: http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN [Date accessed: 10/01/24].

[21] Wealden District Council & Lewes District Council before Mr Justice Jay. Available at: http://www.bailii.org/ew/cases/EWHC/Admin/2017/351.html [Date Accessed: 17/06/24].

[22] Birmingham City Council. (2017) Adopted Birmingham Development Plan. Available at: https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development_plan_2031 [Accessed: 07/06/24].

[23] Bromsgrove District Council (2017) Bromsgrove District Plan 2011-2030. Available at: https://www.bromsgrove.gov.uk/media/samhiyxl/bromsgrove-district-plan-2011-2030.pdf [Accessed: 07/06/24].

[24] Wolverhampton Local Council. City of Wolverhampton Council. Available at: https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan [Accessed 07/06/24].

- Dudley Metropolitan Borough Council[25]
- Lichfield District Council[26]
- North Warwickshire Borough Council[27]
- Solihull Metropolitan Borough Council[28]
- South Staffordshire District Council[29]
- Walsall Council[30]

2.3.3 In addition, other plans and projects with the potential to increase traffic across the study area have the potential to act in-combination with the SLP such as the West Midlands Local Transport Plan[31] and waste and mineral plans. Plans which allocate water resources or are likely to influence water quality in the study area have also been considered, including the Severn River Basin Management Plan (RBMP)[32], Humber RBMP[33], Severn Trent Water Resources Management Plan (WRMP)[34] and South Staffs WRMP[35] (**Appendix A**).

2.4 Stage 2: Appropriate Assessment and Integrity Test

2.4.1 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 objectives[36].

[25] Dudley Local Plan. Dudley Metropolitan Borough Council. Available at: https://www.dudley.gov.uk/residents/planning/planning-policy/dudley-local-plan/ [Accessed 07/06/24].

[26] Lichfield District Council Local Plan. New Local Plan. Available at: https://www.lichfielddc.gov.uk/planning-policy/local-plan-review [Accessed 07/06/24].

[27] North Warwickshire Local Plan. North Warwickshire Borough Council 2021. Available at: https://www.northwarks.gov.uk/forward-planning/local-plan-north-warwickshire [Accessed 07/06/24].

[28] Solihull Metropolitan Borough Council. Solihull Local Plan Review. Available at: https://www.solihull.gov.uk/Planning-and-building-control/Local-Plan-Review [Accessed 07/06/24].

[29] South Staffordshire District Council Local Plan Review. Available at: https://www.sstaffs.gov.uk/planning/planning-policy/local-plan-review [Accessed: 07/06/24].

[30] Walsall Council. Walsall Borough Local Plan. Available at: https://go.walsall.gov.uk/planning-and-building-control/planning-policy/future-planning-policy [Accessed 07/06/24].

[31] West Midlands Combined Authority. (2016) West Midlands Strategic Transport Plan. Available at https://www.tfwm.org.uk/who-we-are/our-strategy/local-transport-plan/ [Accessed 07/06/24].

[32] 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: 07/06/24].

[33] Environment Agency (2022) Humber river basin district management plan: updated 2022. Available at: https://www.gov.uk/guidance/humber-river-basin-district-river-management-plan-updated-2022 [Accessed 07.06.24].

[34] Severn Trent Water (2024) Draft Water Resources Management Plan: Main Narrative. Available at: https://www.severntrent.com/content/dam/dwrmp24-st/STdWRMP24-Main-Narrative.pdf [Accessed 07/06/24].

[35] South Staffs Water (2024) Revised Draft Water Resources Management Plan 2024. Available at: https://www.south-staffs-water.co.uk/media/4287/sst-revised-draft-wrmp-may-2023.pdf [Accessed 07/06/24].

[36] Department of Levelling Up, Housing and Communities (July 2019) Planning Practice Guidance Note, Appropriate Assessment, Guidance on the use of Habitats Regulations Assessment.

2.4.2 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 SLP, or mitigation proposed through other plans or regulatory mechanisms. All mitigation measures must be deliverable and able to mitigate the adverse effects for which they are targeted.

2.4.3 The AA aims to present information in respect of all aspects of the SLP and ways in which it could, either alone or in-combination with other plans and projects, impact a European site. The plan making body (as the Competent Authority) must then ascertain, based on the findings of the AA, whether the Publication 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.

2.5 Dealing with uncertainty

2.5.1 Uncertainty is an inherent characteristic of HRA, and decisions can be made using currently available and relevant information. This concept is reinforced on the 7th of September 2004 'Waddenzee' ruling[37]:

2.5.2 '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'.

2.6 The Precautionary Principle

2.6.1 The HRA process is characterised by the Precautionary Principle which is embedded in the Integrity Test. The Precautionary Principle aims to ensure a higher level of environmental protection through preventative decision-taking in the case of risk[38].

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

[38] EUR-Lex. The Precautionary Principle. Available at: https://eur-lex.europa.eu/EN/legal-content/summary/the-precautionary-principle.html [Accessed: 07/03/24].

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 SLP. This is informally known as scoping and provides an understanding of potential impact pathways from the SLP and connections to European sites and their vulnerabilities. This information is then used to inform the screening assessment (**Chapter 4**). This chapter presents an update to baseline information for each European site and their associated threats and pressures in the context of potential impacts from the Publication SLP at Regulation 19.

3.2 Identification of a 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 pollution / threat a development generates (air pollution, water pollution or increased recreational pressure), and the resources used (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 occurring 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 land outside a designated site for foraging, feeding, roosting, breeding or other activities.

3.2.3 There is no guidance that defines the study area for inclusion in an HRA. Planning Practice Guidance for Appropriate Assessment (listed above) 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'.

3.2.4 This scoping exercise will help to determine the HRA study area and therefore which European sites will be considered in the HRA process.

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.**

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 SLP 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 periodically assesses the conservation conditions of each SSSI unit, assigning it a status. The conservation status of each SSSI highlights any European site that is currently particularly vulnerable to threats/pressures. Conservation status is defined as follows:

- Favourable;
- Unfavourable – recovering;
- Unfavourable – no change; or
- Unfavourable – declining.

3.3.5 SSSI units in either an 'Unfavourable – no change' or 'Unfavourable – declining' condition indicate that the European site may be particularly vulnerable to certain threats or pressures. It is important to remember that the SSSI may be in an unfavourable state due to the condition of features unrelated to its designation. However, it is considered that the conservation status of SSSI units that overlap with European sites offer a useful indicator of habitat / species health at a particular location.

3.3.6 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'[39]. 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 (defined in **paragraph 3.3.7**) and likely vulnerabilities to development proposed within the SLP.

3.3.7 Based on the previous HRA work undertaken at Regulation 18, the following potential impact pathways are considered to be within the scope of influence of the SLP. Land use planning also has the potential to result in impacts upon qualifying features when located outside a designation boundary, known as functionally linked land (FLL)[40]. This HRA therefore also considers effects upon FLL or mobile species within the following topic assessments.

- **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)[41].
- **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.
- **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 have the potential to affect FLL (land or watercourses outside a designated site boundary).
- **Recreational pressure:** New housing development has the potential to increase recreational pressure upon European sites which are accessible to the public.

[39] 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 [Accessed: 14/06/24]

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

[41] APIS (2016) Ecosystem Services and air pollution impacts.

- **Urbanisation effects:** Urban development has the potential to result in disturbing activities (such as noise, lighting, cat predation and visual disturbance). Disturbance effects may impact upon European sites themselves and also their qualifying features when outside a designated site boundary. It may also result in the fragmentation of connecting habitats and corridors which could hinder the movement of qualifying species when located outside a designated site boundary.

3.4 Air quality

3.4.1 Natural England has developed a standard methodology for the assessment of traffic related air quality impacts under the Habitats Regulations which is relevant to the HRA of land use plans[42]. This guidance sets a methodology and thresholds for screening of Likely Significant (air quality) Effects at the HRA screening stage (Stage 1 of the HRA process).

3.4.2 Natural England's guidance (in the form of a series of questions below) has been applied to determine potential air quality impact pathways to European sites:

- Does the SLP give rise to emissions which are likely to reach a European site?
- Are the qualifying features of sites within 200m of a road sensitive to air pollution?
- Could the sensitive qualifying features of the site be exposed to emissions?
- Application of screening thresholds (alone and then, if necessary, in-combination).

Does the SLP give rise to emissions which are likely to reach a European site?

3.4.3 The SLP will trigger housing and employment development and consequently increase traffic related emissions. Air quality impacts have been shown to typically affect European sites within 10km of a plan boundary[43]. Campman and Kite (2021) note that '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 scenario'[44]. 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.

3.4.4 Data has therefore also been obtained from the Office for National Statistics. This data highlights the most common destinations for journeys to work undertaken by car or van arising from and finishing in the Plan area[45]. The key traffic destinations / origins include neighbouring authority areas such as Birmingham, Dudley, Walsall and Wolverhampton.

[42] 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 [Accessed: 07/06/24].

[43] Chapman, C and Kite, B. (2021) Main Report. Guidance on Decision-making Thresholds for Air Pollution. JNCC Report No. 696. Available at: https://hub.jncc.gov.uk/assets/6cce4f2e-e481-4ec2-b369-2b4026c88447 [Accessed 11/06/24].

[44] JNCC. Nitrogen Future. Available at: https://jncc.gov.uk/our-work/nitrogen-futures/ [Accessed 11/06/24].

[45] Office for National Statistics (2011) Location of usual residence and place of work by method of travel to work (2011 census data). Travel by car or van only. Available at: https://www.nomisweb.co.uk/census/2011/WU03UK/chart/1132462281 [Accessed: 17/06/24].

3.4.5 Sandwell, Dudley, South Staffordshire, Walsall and Wolverhampton Councils are working together to prepare a joint strategic air pollution evidence base to support Local Plan production in their respective local authority areas. The following European sites were identified for consideration in this piece of work, drawing on information as set out in **paragraphs 3.4.3** and **3.4.4** and the location of European sites within each LPA administrative area. As part of this joint commission, transport modelling and, where required, air quality modelling work has been undertaken at the following European sites[46] (see **Appendix C**):

- Bee's Nest and Green Clay Pits SAC
- Cannock Chase SAC
- Cannock Extension Canal SAC
- Fens Pools SAC
- Midlands Meres and Mosses Phase 1 Ramsar Site - Chartley Moss SSSI and Betley Mere SSSI components
- Midlands Meres and Mosses Phase 2 Ramsar Site – Aqualate Mere SSSI and Cop Mere SSSI components
- Mottey Meadows SAC
- Pasturefields Salt Marsh SAC
- Peak District Dales SAC
- West Midlands Mosses SAC – Chartley Moss SSSI component

3.4.6 Taking into consideration the outputs from this joint commission, European sites beyond 10km of the Plan area, but within the key commuting areas outlined in **paragraph 3.4.4,** are therefore also considered within this HRA where they are linked to the Plan area via key strategic road links, as identified in **Table 3.1**. Key strategic road links provide a clear route linking residential and employment areas to / from the Plan area**.**

Are the qualifying features of sites within 200m of a road sensitive to air pollution?

3.4.7 It is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance[47,48,49]. 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 Natural England's screening thresholds (in particular A and B roads and motorways) within a 10km buffer from the Plan area and within the key commuting area[50] (**paragraphs 3.4.3** and **3.4.4**).

[46] Middlemarch (2023) Creation of an Air Pollution Evidence Base Brief to Support Local Plan HRA Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

[47] 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.

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

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

[50] As per Nitrogen Futures Modelling Work – see Paragraph 5.4.8.

3.4.8 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 SLP to any European site through a change in atmospheric emissions (**Table 3.1**). Consideration has also been given to the location of each European site and connectivity of road links to the Plan area (as set out in **paragraph 3.4.6**).

3.4.9 There are no strategic road links (motorways or A or B roads) within 200m of the following European sites and therefore these sites were scoped out of the joint commission[51].

- Mottey Meadows SAC;
- Peak District Dales SAC;
- West Midland Meres and Mosses Phase 1 Ramsar – Betley Mere SSSI component; and,
- West Midland Meres and Mosses Phase 2 Ramsar – Aqualate Mere SSSI component.

3.4.10 The area of the West Midland Mosses SAC and Midland Meres and Mosses Phase 1 Ramsar underpinned by Chartley Moss SSSI lies within 200m of the A518. Habitat within 200m of the A518 is comprised of broad-leaved deciduous woodland. This is not a feature of the SAC designation or reason for notification of the site as a Ramsar. This site was therefore also be scoped out of the joint commission[52].

[51] Middlemarch (2023) Creation of an Air Pollution Evidence Base Brief to Support Local Plan HRA Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

[52] Middlemarch (2023) Creation of an Air Pollution Evidence Base Brief to Support Local Plan HRA Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

Table 3.1: Atmospheric pollution impact pathways to European sites

European site considered within joint air quality commission	Is the European site sensitive to air quality impacts? (see Appendix B)	Is the European site within 10km of the Plan area or is there a key strategic road link (A and B roads linking to the Plan area) located within 200m of the European site?	Will the European site be scoped in for further assessment in the HRA process[53]?
Bee's Nest and Green Clay Pits SAC	Yes	No	No
Cannock Chase SAC	Yes	Yes (A460 (Rugeley Road) and A513, Camp Road) These road links are located over 17km from the Plan area. The A460 is a primary road linking Wolverhampton and Cannock with the M54, M6 and M6 Toll and is not connected directly to the Plan area. The A513 provides a strategic route between Stafford and Rugeley, linking to the A51 to Tamworth. The A513 is not directly connected to the Plan area. It will therefore not be considered further in the HRA process in terms of air quality effects.	No
Cannock Extension Canal SAC	Yes	Yes (A5 (Watling Street) and B4154 (Lime Lane) These road links are located approx. 8km to the north of the Plan area and are linked to Sandwell via the strategic road network. Given the proximity of the SAC to the Plan area (within 10km) it will be scoped in for further assessment in the HRA process in terms of air quality impacts.	Yes
Fens Pool SAC	Yes	Yes (A4101 (High Street) and A461 (Stourbridge Road) These road links are less than 4km to the west of the Plan area and are linked via the strategic road network. Given the proximity of the SAC to the Plan area and strategic road links, it will be scoped in for further assessment in the HRA process in terms of air quality impacts.	Yes
Pasturefields Salt Marsh SAC	Yes	Yes (A51) This road link is located more than 28km to the north of the Plan area. The A51 provides a cross-country route linking Chester and Litchfield and providing access to the M6, A38, M42. The A51 is not connected through strategic road links to the Plan area. It will therefore not be considered further in the HRA process in terms of air quality effects.	No

[53] Reasons for scoping out European site are provided in Sweco (2024) Traffic modelling to inform an assessment of air quality impacts of Europeans sites in Staffordshire, Wolverhampton, Walsall, Sandwell, and Dudley. Traffic Model Validation and Forecast

European site considered within joint air quality commission	Is the European site sensitive to air quality impacts? (see Appendix B)	Is the European site within 10km of the Plan area or is there a key strategic road link (A and B roads linking to the Plan area) located within 200m of the European site?	Will the European site be scoped in for further assessment in the HRA process[53]?
Midland Meres and Mosses Phase 1 Ramsar Component underpinned by: • Chartley Moss SSSI	Yes	Yes (A518) This road link is located more than 32km to the north of the Plan area. The only area of habitat within the site which lies within 200m of the A518 is an area of broad-leaved deciduous woodland in Unit 5 of the underlying Chartley Moss SSSI. This is not a criterion of the Ramsar designation. No further assessment is therefore required in the HRA process.	No
Midland Meres and Mosses Phase 1 Ramsar Component underpinned by: • Betley Mere SSSI	Yes	No	No
Midland Meres and Mosses Phase 1 Ramsar Component underpinned by: • Wybunbury Moss SSSI	Yes	No	No
Midland Meres and Mosses Phase 2 Ramsar Component underpinned by: • Aqualate Mere SSSI	Yes	No	No
Midland Meres and Mosses Phase 2 Ramsar Component underpinned by: • Black Firs and Cranberry Bog SSSI	Yes	No	No

European site considered within joint air quality commission	Is the European site sensitive to air quality impacts? (see Appendix B)	Is the European site within 10km of the Plan area or is there a key strategic road link (A and B roads linking to the Plan area) located within 200m of the European site?	Will the European site be scoped in for further assessment in the HRA process[53]?
Midland Meres and Mosses Phase 2 Ramsar Component underpinned by • Oakhanger Moss SSSI	Yes	Yes (M6) The M6 at this point is located approx. 62km to the north of the Plan area. Given the distance of this component of the Ramsar from the Plan area it can be scoped out. No further assessment is therefore required in the HRA process.	No
Midland Meres and Mosses Phase 2 Ramsar Component underpinned by • Cop Mere SSSI	Yes	No	No
Mottey Meadows SAC	Yes	No	No
Peak District Dales SAC	Yes	No	No
West Midlands Mosses SAC Component underpinned by: • Chartley Moss SSSI	Yes	Yes (A518) This road link is located more than 32km to the north of the Plan area. The only area of habitat within the site which lies within 200m of the A518 is an area of broad-leaved deciduous woodland within SSSI Unit 5 of the underlying Chartley Moss SSSI. This is not a criterion of the SAC designation. No further assessment is therefore required in the HRA process.	No

Could the sensitive qualifying features of the site be exposed to emissions?

3.4.11 As noted above, the SLP will trigger housing and employment development and therefore has the potential to increase traffic related emissions along road links within 200m of a European site.

Application of screening thresholds (alone and then if necessary in-combination)

3.4.12 Natural England's advice on the assessment of air quality impacts under the Habitats Regulations states that consideration should be given to the risk of road traffic emissions associated with a Local Plan[54]. This advice states that an assessment of the risks from road traffic emissions can be expressed in terms of the average annual daily traffic flow (AADT) (as a proxy for emissions)). The use of the AADT screening threshold is advocated by Highways England in their Design Manual for Roads and Bridges (DMRB). This screening threshold is intended to be used as a guide to determine whether a more detailed assessment of the impact of emissions from road traffic is required. This non-statutory or guideline threshold is based on a predicted change of daily traffic flows of 1,000 AADT or more (or heavy-duty vehicle flows on motorways (HDV) change by 200 AADT or more).

3.4.13 The AADT thresholds do not themselves imply any intrinsic environmental effects and are used solely as a trigger for further investigation. Widely accepted environmental benchmarks for imperceptible impacts are set at 1% of the critical load or level, which is considered to be roughly equivalent to DMRB thresholds for changes in traffic flow of 1,000 AADT and for HDV of 200 AADT. This has been confirmed by modelling using the DMRB Screening Tool that used average traffic flow and speed figures from the Department for Transport (DfT) data to calculate whether the nitrogen oxides (NOx) outputs could result in a change of >1% of critical load / level on different road types. A change of >1,000 AADT on a road was found to equate to a change in traffic flow which might increase emissions by 1% of the Critical Load or Level and might consequentially result in an environmental effect nearby (e.g. within 10 metres of roadside).

3.4.14 The AADT thresholds and 1% of critical load/level are considered by Natural England to be suitably precautionary as any emissions below this level are widely considered to be imperceptible and, in the case of AADT, undetectable through the DMRB model. There can, therefore, be a high degree of confidence in its application to screen for risks of an effect.

3.4.15 Traffic modelling and forecasting for the joint strategic air pollution evidence base was carried out with the PRISM 5.3 model, acquired from Transport from West Midlands. Forecast year traffic volumes were calculated for the following scenarios:

- Future Year 'Do nothing' assessment (2042): AADT forecast by assuming no growth inside the joint strategic partnership authorities and Tempro growth outside of the partnership authorities;
- Future Year with Local Plan 'In-combination' assessment (2042): AADT forecast by assuming local planning-based growth inside all joint strategic partnership authorities and Tempro growth outside of the joint strategic partnership authorities.

[54] 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 [Accessed: 12/06/24]

3.4.16 Further information on the traffic modelling methodology can be obtained in the traffic modelling report[55].

3.4.17 Traffic flows were calculated for a number of Recommended Assessment Points (RAPs) on road links which are located within 200m of the relevant scoped in European sites (see **Table 3.1**). RAPS of relevance to each scoped in European site are set out in **Table 3.2**.

Table 3.2: Recommended Assessment Points modelled in traffic modelling

European Site	RAP Ref	Road Type	Road Name
Cannock Extension Canal SAC	RAP 10	A	A5 Watling Street
	RAP 11	B	B4154 Lime Lane
Fens Pools SAC	RAP 12	A	A4101 High Street
	RAP 13	A	A461 Stourbridge Road

3.4.18 The in-combination assessment was completed by comparing the results of the 'baseline' scenario and the 'with partnership authorities local plans' scenario or in-combination scenario. It is noted that no future year alone plan scenario was provided for Sandwell in the traffic modelling.

3.4.19 This traffic modeling output data was screened against Natural England's 1,000 AADT threshold for LSEs. Where in-combination traffic flows exceeded the 1,000 AADT threshold, these road links were screened in for further consideration in the AA process. Traffic data and screening outputs are presented in Table 5.1 of the Air Quality Report which is provided at **Appendix C**[56].

3.4.20 The resulting increase in total daily highway traffic (AADT) at the RAP sites between the 'baseline' scenario and the 'with partnership authorities local plans' scenario (i.e. the in-combination scenario) varied depending on the road type. Road links with 200m of both the Cannock Extension Canal SAC and the Fens Pools SAC exceeded the 1,000 AADT threshold by 2042. This exceedance was recorded at RAP 10 (A5 Watling Street), RAP 11 (B4154 Lime Lane), RAP 12 (A4101 High Street) and RAP 13 (A461 Stourbridge Road).

3.4.21 Given these exceedances, air quality modelling was therefore commissioned to better define air quality impacts. This modelling is reported upon in the Air Quality Assessment Report57 (see **Appendix C**).

3.4.22 The air quality modelling focused on the following pollutants which are associated with traffic related emission sources:

- Nitrogen oxides (NOx)
- Ammonia (NH_3)

[55] Sweco (2024) Traffic modelling to inform an assessment of air quality impacts of Europeans sites in Staffordshire, Wolverhampton, Walsall, Sandwell, and Dudley. Traffic Model Validation and Forecast

[56] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

[57] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

- Nutrient nitrogen deposition (N-dep)
- Acid deposition (A-dep)

3.4.23 Nitrogen oxides (NOx) are produced during the combustion processes, partly from nitrogen compounds in the fuel, but mostly by direct combination of atmospheric oxygen and nitrogen in flames[58]. Road transport emissions of NOx in 2018 were the largest contributor to UK total emissions of NOx with most emissions related to diesel vehicles[59]. The introduction of catalytic converters has seen an overall reduction in emissions since 1990. NOx have the potential to impact habitats through direct toxicity and through their contribution to nitrogen deposition. The critical level for all vegetation types from the direct toxic effects of NOx has been set at 30 $\mu g/m^3$.

3.4.24 Ammonia originates from both natural and anthropogenic sources, with the main man-made source being agriculture. Other man-made sources of ammonia include industrial processes and vehicular emissions (from catalyst-equipped petrol vehicles and selective catalytic reduction on light and heavy goods diesel fueled vehicles). As with NOx, elevated levels of ammonia can be directly toxic to plants and can also enrich a system with nitrogen causing eutrophication and acidification effects on habitats.

3.4.25 Lichen species can be sensitive to even small increases in ammonia (1 $\mu g/m^3$)[60]. As such, there are two critical levels for ammonia, 1 $\mu g\ m^{-3}$ for lower plants (lichens and bryophytes[61]) and 3 $\mu g/m^3$ for higher level plants (all other vegetation). The adopted critical levels of ammonia applied in the air quality assessment were based on the information provided by Middlemarch Environmental Ltd[62] which were determined through a review of relevant qualifying habitat(s) or habitats upon which qualifying species rely at each European site and agreed with Natural England[63]. The air quality modelling for Cannock Extension Canal SAC and Fens Pools SAC has applied the threshold of 3 $\mu g/m^3$.

3.4.26 APIS describes nitrogen deposition as 'the input of reactive nitrogen from the atmosphere to the biosphere both as gases, dry deposition and in precipitation as wet deposition[64]'. Anthropogenic sources of enhanced reactive nitrogen deposition come from emissions of oxidised nitrogen (NOx) and fossil fuel combustion and reduced nitrogen from agricultural sources.

[58] Air Pollution Information Systems (2017) Pollutants, available at: https://www.apis.ac.uk/ [Accessed: 07/08/24].

[59] National Atmospheric Emissions Inventory. Available at: https://naei.beis.gov.uk/overview/pollutants?pollutant_id=6 [Accessed: 07/08/24].

[60] Air Pollution Information Systems. Pollutants. Available at: https://www.apis.ac.uk/ [Accessed: 07/08/24].

[61] *Lichens and mosses are at most risk as they have limited detoxification capacity relative to their uptake potential and a large surface area relative to mass.* Source: Air Pollution Information Systems. Pollutants. Available at: http://www.apis.ac.uk/overview/pollutants/overview_NH3.htm [Date Accessed: 07/08/24].

[62] Middlemarch (2023) Creation of an Air Pollution Evidence Base Brief to Support Local Plan HRA Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

[63] Natural England (14/04/2024) Planning consultation: Creation of an Air Pollution Evidence Base Brief to Support Local Plan HRA [Letter].

[64] APIS. Nitrogen Deposition. Available at: https://www.apis.ac.uk/ [Accessed: 07/08/24].

3.4.27 Nitrogen is a major growth nutrient for plants. An increase in nitrogen can be toxic to plants and can lead to eutrophication which can cause species loss and changes in the structure and function of ecosystems. Nitrogen can also cause acidification of soils, the effects of which are discussed in more detail below (see acidification in **paragraph 3.4.28**). Traffic related inputs of NOx and ammonia have an impact on the rates of nitrogen deposition. Nitrogen deposition rates are habitat specific as different habitats have different tolerances to different levels. Where a critical load range is provided, the lower end of the range has been used in this screening assessment to ensure a precautionary approach has been taken. The nitrogen deposition critical load for both Cannock Chase Extension Canal SAC and Fens Pools SAC is 10 kgN/ha/yr.

3.4.28 Acidification comprises the deposition of pollutants to soils which changes the pH level causing acidification. The contribution of SO_2 to acid deposition has reduced since the 1980s, with controls on transboundary emissions, so that the main contribution to acidification is from sources of oxidised and reduced nitrogen. The effect of acid deposition is indirect and related to the lowering of soil pH leading to reduced fertility and nutrient deficiencies, the release of toxic metals and changes in microbial transformations[65]. As with nitrogen deposition, acid deposition rates are habitat specific. Neither Cannock Chase Extension Canal SAC nor Fens Pools SAC are sensitive to acidification and therefore this pathway of impact is scoped out of the assessment[66].

3.4.29 The air quality modelling provided more detailed locally based and spatial air quality data. This allowed a comparison of the change in emissions against 1% of the individual pollutant critical load or level (as set out in **paragraph 3.4.13**). This modelling data was used to provide an assessment of LSEs in the context of critical levels and loads, following Natural England's guidelines, against the 1% screening threshold.

3.4.30 **Appendix C** provides the outputs of the air quality modelling results against the 1% screening threshold. The air quality modelling was undertaken at receptor grids across each European site within 200m of a modelled road link. The air quality modelling also provides further assessment beyond 200m and up to 1,000m from the closest modelled road link within each European site. Where a road link was within 200m of a European site, receptors were modelled at 10m intervals up to a distance of 200m. Beyond 200m from a road link, receptors were modelled at 50m intervals up to 1,000m from the site boundary. The extent of receptors modelled is illustrated in **Appendix C**.

3.4.31 As set out in Section 5 of the Air Quality Report (**Appendix C**), the 1% NOx threshold in-combination at Cannock Extension Canal SAC was exceeded at a high proportion of receptors adjacent to the south of the A5 Watling Street (RAP 10) and north of B4154 Lime Lane (RAP 11). At Fens Pools SAC the 1% screening threshold for NOx in-combination was exceeded at a number of receptors within 50m of the A4101 High Street (RAP 12) within the northern area of the SAC. These exceedances are illustrated in **Appendix C**.

[65] The APIS. Acid Deposition. Available at: http://www.apis.ac.uk/overview/pollutants/acid-deposition [Accessed: 21/12/22]

[66] Middlemarch (2023) Creation of an Air Pollution Evidence Base Brief to Support Local Plan HRA Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

3.4.32 In terms of NH_3, approximately 40% of the Cannock Extension Canal SAC area was shown to exceed the 1% screening criterion in-combination, mainly encompassing the area of the SAC between the south of the A5 Watling Street (RAP 10) and north of B4154 Lime Lane (RAP 11). At Fens Pools SAC, the 1% screening criterion in-combination was exceeded for NH_3 within 50m to the south of the A4101 High Street (RAP 12). These exceedances are illustrated in **Appendix C**.

3.4.33 In terms of nitrogen deposition, approximately 60% of the Cannock Extension Canal SAC was modelled to experience in-combination impacts above the 1% significance screening criterion. This area encompassed the entirety of the SAC between the south of the A5 Watling Street (RAP 10) and north of B4154 Lime Lane (RAP 11). Approximately 10% of Fens Pools SAC was modelled to experience in-combination impacts above the 1% significance screening criterion. This included the area within 70m to the south of the A4101 High Steet (RAP 12). These exceedances are illustrated in **Appendix C**.

3.4.34 Based on a review of air quality modelling data against Natural England's 1% significance screening threshold for each pollutant (**Appendix C**), air quality pathways of impacts Cannock Extension Canal SAC and Fens Pools SAC have been screened in for further consideration in the HRA process in terms of NOx, ammonia and nitrogen deposition.

3.5 Water quality and water quantity

3.5.1 Development proposals associated with the SLP have 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
- Increased effluent discharge for treatment

3.5.2 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 in the SLP. In addition, land use planning has the potential to result in impacts upon qualifying features of European sites (for instance species of fish or birds) when they are located outside a designation boundary, known as FLL (a definition is provided in **paragraph 3.3.7**).

3.5.3 The tests set out under Article 105 of the Habitats Regulations need to be applied in respect of plans which may significantly affect FLL with an important role in contributing to the favourable conservation status of the relevant species for which a European site is designated.

3.5.4 The Plan area is predominantly located within the Humber River Basin District, with a smaller section of the borough being located within the Severn River Basin District. Each river basin district is managed through division into Surface Water Management Catchments (SWMCs). SWMCs outline the preferred surface water management strategy alongside establishing a long-term action plan for surface water. In the Humber River Basin District, the Plan area coincides with the Tame Anker and Mease SWMC. In the Severn River Basin District, the Plan area coincides with the Severn Middle Worcestershire SWMC, as illustrated in **Figure 3.1.**

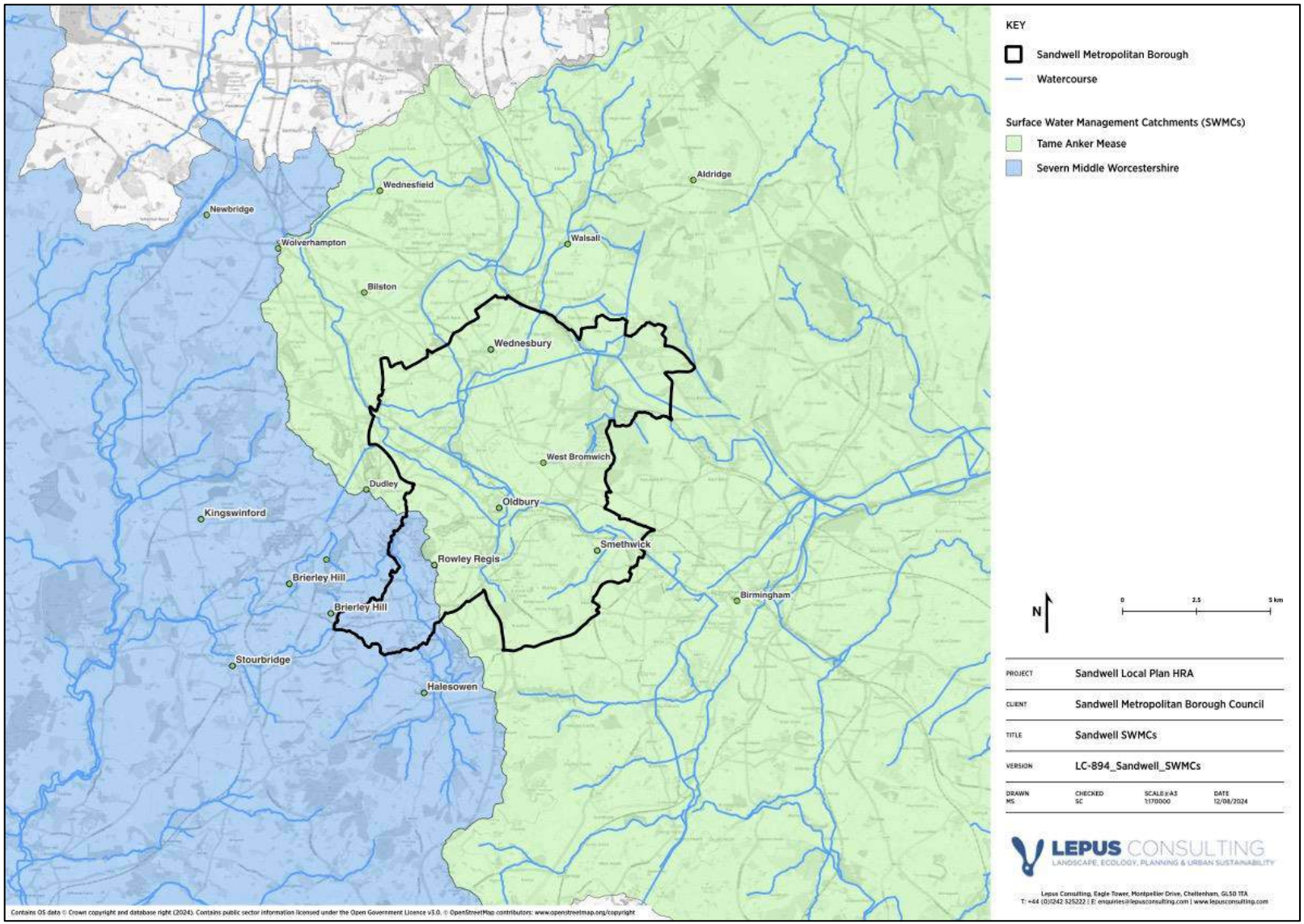

Figure 3.1: *Surface Water Management Catchments (SWMCs) within the Plan area*

3.5.5 Within the Humber Basin District, the River Tame is a significant tributary of the River Trent and flows through Sandwell in an easterly direction, converging with the River Trent in Alrewas, Staffordshire, to the north east of Walsall. The River Trent then flows in a northerly direction, joining the Humber to the west of Hull. The River Humber discharges at the Humber Estuary which is designated as a SAC, SPA and Ramsar for a number of qualifying features (**Appendix B**).

3.5.6 In the Severn River Basin District, the River Stour flows along the south-eastern boundary, between Sandwell and Dudley in a westward direction. It flows westward from Halesowen before joining the River Severn at Stourport-on-Severn. The River Severn ultimately flows into the Severn Estuary which is designated as a SAC, SPA and Ramsar for a number of qualifying features (**Appendix B**).

3.5.7 An extensive canal network is also located within and around Sandwell, which includes the Walsall Canal, Tame Valley Canal, Birmingham to Wolverhampton Level, Rushall Canal, Dudley Canal, and the Titford Canal

3.5.8 Decisions relating to water abstraction for the supply and disposal of water are controlled through a number of licensing mechanisms and a high-level water planning framework which is subject to HRA. This ensures the protection of the water environment and compliance with the Water Framework Directive (WFD).

3.5.9 The Severn River Basin Management Plan (RBMP)[67] and the Humber RBMP[68] provide a framework for protecting and enhancing the benefits provided by the water environment (see **Appendix A**). To achieve this, and because water and land resources are closely linked, they also inform 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.

3.5.10 South Staffordshire Water (SSW) and Severn Trent Water (STW) are the statutory water suppliers for Sandwell. It is a statutory requirement that every five years water companies produce and publish a Water Resources Management Plan (WRMP) (a summary of the SSW and STW WRMP is provided in **Appendix A**). 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. WRMP's are linked to Drought Plans (a summary of the SSW and STW Drought Plans is provided in **Appendix A**) 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.

[67] Environment Agency (2022) Severn River Basin Management Plan. Available at: https://www.gov.uk/guidance/severn-river-basin-district-river-basin-management-plan-updated-2022 [Accessed: 30/05/24]

[68] Environment Agency (2022) Humber River Basin Management Plan. Available at: https://www.gov.uk/guidance/humber-river-basin-district-river-management-plan-updated-2022 [Accessed: 30/05/24]

3.5.11 The STW WRMP[69] and SSW WRMP[70] estimate future water demands and plans how these levels will be achieved. Both plans are currently under review and the draft STW WRMP 2024[71] and the SSW revised draft WRMP 2024[72] have been published for consultation. The WRMPs outline a number of demand management measures that need to be taken to ensure continued sustainable sources of water supply.

3.5.12 The Environment Agency (EA) prepares Abstraction Licensing Strategies (ALS) through its Catchment Abstraction Management Strategy (CAMS) process. These ALSs are prepared for each sub-catchment within a river basin. The CAMS process aims to assess the amount of water available for further abstraction licensing, taking into account environmental needs and implementation of the RBMPs and water abstraction plans[73]. The CAMS process is published in a series of ALSs for each river basin. ALS are important in relation to the RBMP as they assist in determining current and future pressures on water resources and how the supply and demand will be managed by the relevant water companies through WRMPs.

3.5.13 For the purposes of water resource planning, the country 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"[74]. These WRZs have been amalgamated into larger sub-regional supply areas. The Plan area is predominantly served by the SSW Company Wide WRZ, supplied by SSW, as well as the Strategic Grid SSW to the east, and the Wolverhampton WRZ to the north east, both supplied by STW (see **Figure 3.2**). Water abstraction occurs within these WRZs and therefore any European sites within the WRZs served by the Plan area have the potential for water quantity LSEs as a result of development within the SLP. As such, these European sites are scoped into the assessment for further consideration in the HRA process (see **Table 3.3**).

[69] Severn Trent Water (2019) Waste Resources Management Plan 2019. Available at: https://SLP.stwater.co.uk/content/dam/stw-plc/our-plans/severn-trent-water-resource-management-plan.pdf [Accessed: 26/05/24]

[70] South Staffs Water. Water Resources Management Plan 2019. Available at: https://www.south-staffs-water.co.uk/media/2676/final-wrmp-2019-south-staffs-water.pdf [Accessed: 26/05/24]

[71] Severn Trent Water. Draft Waste Resources Management Plan 2024. Available at: https://www.severntrent.com/about-us/our-plans/water-resources-management-plan/dwrmp24-draft-documents/ [Accessed 11/06/24].

[72] South Staffs Water (2024) Revised Draft Water Resources Management Plan 2024. Available at: https://www.south-staffs-water.co.uk/media/4287/sst-revised-draft-wrmp-may-2023.pdf [Accessed: 07/06/24]

[73] DEFRA (2021) Policy Paper: Water Abstraction Plan.

[74] 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=2ahUKEwiY8ei5gu2GAxXkZ0EAHUC5D_kQFnoECB0QAQ&usg=AOvVaw3uO8-LrFuwvJ2kHu2ixaCT [Accessed: 21/06/24].

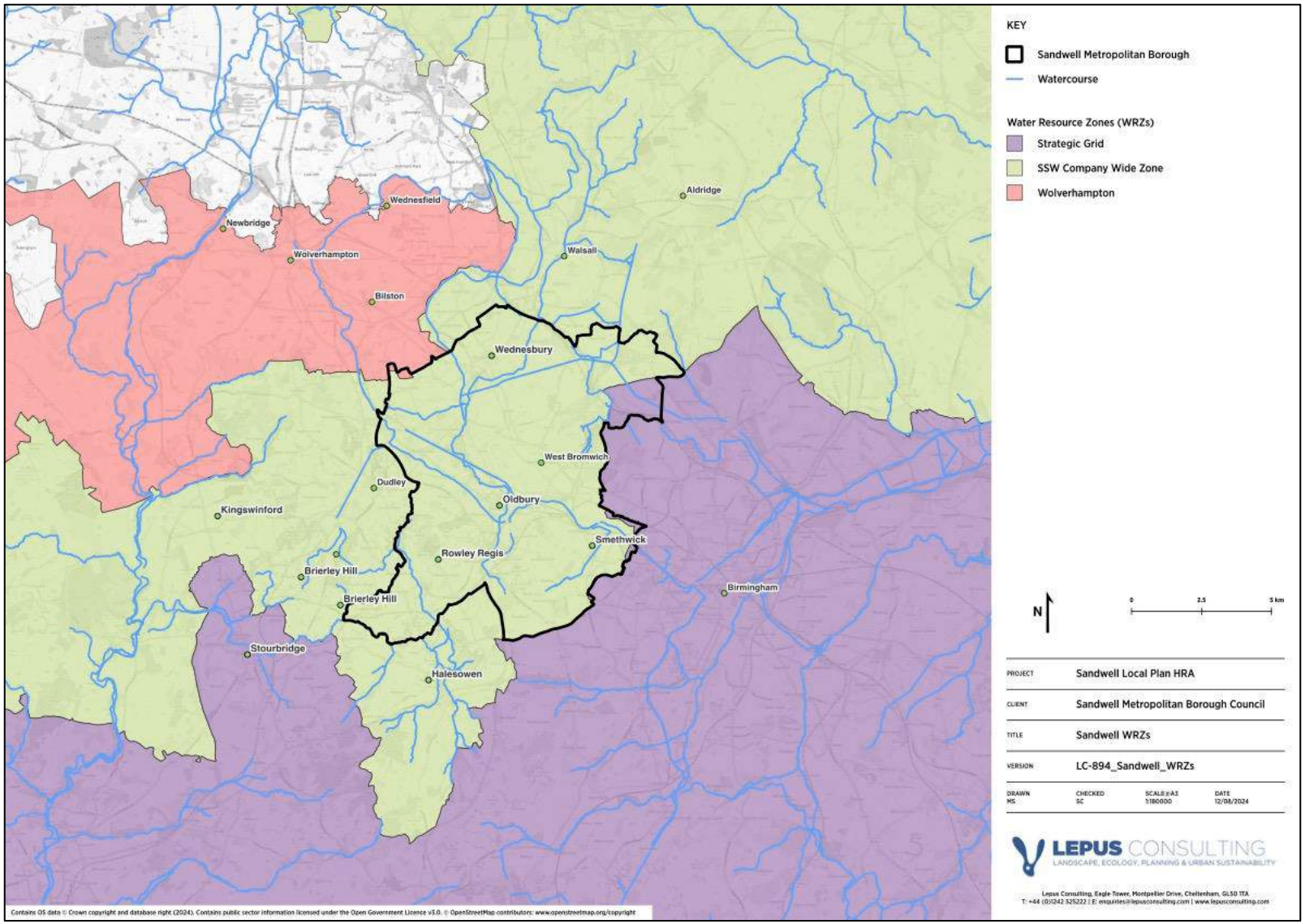

Figure 3.2: *Water Resource Zones (WRZs) in relation to the Plan area*

3.5.14 As part of the evidence base that supported the now withdrawn draft BCP, a Water Cycle Study (WCS) was prepared[75]. This was undertaken through consultation with STW, SSW, the EA and neighbouring LPAs. Through this work, STW advised that if growth in the Black Country was in line with their forecast, then they do not have concerns regarding water resources. SSW stated that they do not have concerns about the level of growth within their Water Resource Zone (WRZ). These findings have been verified on the basis of the growth proposed within the emerging SLP through preparation of an updated WCS[76].

3.5.15 STW is the statutory sewerage undertaker for Sandwell. 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[77].

3.5.16 As noted in **paragraph 3.5.4**, the Plan area predominantly falls within hydrological catchments associated with the Severn Estuary and the Humber Estuary. The qualifying features of the Severn Estuary SAC include, among other features, a number of species of migratory fish including Twaite Shad (*Alosa fallax*), River Lamprey (*Lampetra fluviatilis*) and Sea Lamprey (*Petromyzon marinus*). Criterion 4 of the Severn Estuary Ramsar designation notes that the site is important for the run of migratory fish between sea and river via estuary, including the SAC species (listed earlier) and additional species of Salmon (*Salmo salar*), Sea Trout (*S. trutta*) and Allis Shad (*Alosa alosa*).

3.5.17 Consultation with the EA indicates that recent surveys have identified fish spawning sites along the whole length of the River Severn (where access is possible) and within the River Teme, with fish recorded from Maisemore Weir in Gloucester all the way up to Lincoln Weir near Stourport and in the River Teme from its confluence with the Severn to upstream of Knightwick and as far as Tenbury[78].

[75] JBA Consulting (May 2020) Black Country Councils Water Cycle Study: Scoping Study - Final Available at: https://blackcountryplan.dudley.gov.uk/t2/p4/t2p4h/ [Accessed: 16/07/24].

[76] JBA Consulting (2024) Sandwell Local Plan Water Cycle Study -Stage 2.

[77] JBA Consulting (2024) Sandwell Local Plan Water Cycle Study -Stage 2.

[78] Unlocking the Severn (2022) Endangered twaite shad fish return to habitat unlocked after 180 years. Available at: https://www.unlockingthesevern.co.uk/endangered-fish-return-to-habitat-unlocked-after-180-years/ [Accessed 10/06/24].

3.5.18 The 'Unlocking the Severn' project[79], which is run in partnership between the Canal and Rivers Trust (CRT), the Severn Rivers Trust, the EA and Natural England, aims to create fish passes at six barriers on the Severn and its River Teme tributary to allow Twaite Shad to migrate upstream. With the opening of the Diglis fish pass in March 2021, fish are now able to move upstream through Worcester to Stourport on Severn. A consultation response from Natural England indicates that currently, the tidal weir at Tewkesbury is believed to present an obstacle to most of the migratory fish species apart from the European Eel (*Anguilla Anguilla*), which has been recorded in the Warwickshire Avon. Natural England note that in the last few decades Eel numbers have declined internationally by as much as 95% and have been listed by the International Union for Conservation of Nature (IUCN) on their Red List as critically endangered species[80]. Barriers to their journey upstream, habitat degradation and pollution are some of the contributing factors affecting population decline. Whilst there are still barriers to upstream movement, any development within the upper catchment (and Plan area) must ensure potential future use of these sites are not compromised.

3.5.19 Migratory fish species associated with the Humber Estuary SAC and the Humber Estuary Ramsar are Sea Lamprey and River Lamprey. River Lamprey have been recorded as far upstream as the River Dove (on the Staffordshire/Derbyshire border).

3.5.20 Any potential deterioration in water quality or habitat outside the Severn Estuary and Humber Estuary SAC and Ramsar designations as a result of the SLP may have implications for the migration of fish to upstream spawning habitat if it results in a barrier to movement. The impact of the SLP upon functionally linked watercourses and habitat through a deterioration in water quality, flows and loss and / or deterioration of riparian and in-stream habitat may therefore have adverse effects on the achievement of the conservation objectives which aim to maintain and restore the condition of these features for relevant qualifying species. Natural England considers that Good Ecological Status under the WFD is an appropriate standard for functionally linked watercourses[81].

3.5.21 **Table 3.3** identifies European sites which are both hydrologically connected to the Plan area and which were identified through a detailed review of site information as being vulnerable to hydrological impacts.

[79] Unlocking the Severn (2022) Unlocking the Severn's 7 successes of 2022. Available at: https://www.unlockingthesevern.co.uk/unlocking-the-severn-7-successes-of-2022/ [Accessed 10/06/24].

[80] IUCN Red List of Threatened Species (2018) European Eel. Available at: https://www.iucnredlist.org/species/60344/152845178 [Accessed 11/06/24].

[81] Defra (2014) Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment (publishing.service.gov.uk). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/307788/river-basin-planning-standards.pdf [Accessed 10/06/24].

Table 3.3: Review of hydrological impact pathways to European sites within the influence of the SLP

Hydrologically sensitive European site with hydrological links to the Plan area	Potential for water quality LSEs	Potential for water quantity LSEs	Will the European site be scoped in for further assessment in the HRA process?
Cannock Chase SAC	Cannock Chase SAC is located approx. 17km to the north of the Plan area at its closest point. The SAC is located upstream of the Plan area. Therefore, it is unlikely to be affected by a change in water quality from growth set out in the SLP.	Cannock Chase SAC is not located within the Plan WRZ catchments and therefore there are unlikely to be impacts upon water quantity from water abstraction associated with SLP growth.	No
Cannock Extension Canal SAC	Cannock Extension Canal SAC is located approx. 8km to the north of the Plan area. The SAC is fed by the Chasewater reservoir which is part of the Chasewater Southern Staffordshire Coalfield Heaths SSSI and located upstream of the Plan area. The Cannock Extension Canal SAC is hydrologically linked to the Wyrley and Essington Canal via the Birmingham Canal and Walsall Canal which flow through the Plan area. The Wyrley and Essington Canal is a contour canal, where the canal follows the contours of the land with no intervening locks. There are numerous discharges into the Wyrley and Essington Canal, which could potentially impact water quality at the SAC and therefore water quality will be assessed further in the HRA process.	Cannock Extension Canal SAC is located within the SSW Company Wide Zone WRZ catchment. Therefore, there is potential for water quantity impacts as a result of the SLP and associated water abstraction for new development.	Yes
Ensor's Pool SAC	Ensor's Pool SAC is located approx. 30km east of the Plan area. It is groundwater fed[82] and not hydrologically connected to the Plan area. It is therefore unlikely that there will be any water quality pathways of impact.	Ensor's Pool SAC is located within the Strategic Grid WRZ catchment. Therefore, there is potential for water quantity impacts as a result of the SLP and associated water abstraction for new development.	Yes

[82] Natural England (2014) Site Improvement Plan: Ensor's Pool. Available at: https://publications.naturalengland.org.uk/file/4864434220564480 [Accessed 13/08/24].

Hydrologically sensitive European site with hydrological links to the Plan area	Potential for water quality LSEs	Potential for water quantity LSEs	Will the European site be scoped in for further assessment in the HRA process?
Fens Pools SAC	Fens Pool SAC is located approx. 3km to the west of the Plan area. Water is supplied to Fens Pools SAC from rainfall, run-off from neighbouring residential areas and inputs from springs to the north eastern corner of the site[83]. The ponds within Fens Pools SAC are hydrologically connected to each other and then feed into the Stourbridge Canal. Given the extensive canal network across the local area, water quality at the SAC from development set out in the SLP will be assessed further in the HRA process.	Fens Pools SAC is located within the SSW Company Wide Zone WRZ catchment. Therefore, there is potential for water quantity impacts as a result of the SLP and associated water abstraction for new development.	Yes
Humber Estuary SAC and Ramsar	The Plan area is located within the Humber River Basin District. Watercourses draining the Plan area are linked to the downstream Humber Estuary designations. Given the location of the Plan area 140km to the south east of the Estuary it is unlikely that there will be direct water quality effects upon these downstream designations. However, the SAC and Ramsar designations support species of migratory fish which have the potential to move into the upper catchment for spawning and are sensitive to changes in water quality that may be caused by the SLP. Therefore, water quality pathways of impact will be considered further in the HRA process.	The Humber Estuary SAC, SPA and Ramsar is not located within the Plan WRZ catchments and therefore there are unlikely to be impacts upon water quantity from water abstraction associated with SLP growth.	Yes
River Mease SAC	The River Mease SAC is located approx. 22km downstream of the Plan area. The SLP area feeds into the River Tame which joins the River Trent downstream of the River Mease. Therefore, there are no direct hydrological links to the Plan area and water quality effects from the SLP are unlikely.	The River Mease SAC is located within the SSW Company Wide Zone and Strategic Grid WRZ catchments. Therefore, there is potential for water quantity impacts as a result of the SLP and associated water abstraction for new development.	Yes

[83] Correspondence with Dudley Council Countryside Manager 19th June 2024.

Hydrologically sensitive European site with hydrological links to the Plan area	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 SAC and Ramsar	The Plan area is located within the Severn River Basin District. Watercourses draining the Plan area are linked to the downstream Severn Estuary designations. Given the location of the Plan area 80km to the northeast of the Estuary it is unlikely that there will be direct water quality effects upon these downstream designations. However, the downstream SAC and Ramsar designations support species of migratory fish which have the potential to move into the upper catchment for spawning and are sensitive to changes in water quality that may be caused by the SLP. Therefore, water quality pathways of impact will be considered further in the HRA process.	The Severn Estuary SAC, SPA and Ramsar is partially located within the Strategic Grid WRZ catchment. However, the European site is not vulnerable to water quantity and therefore there are unlikely to be impacts upon water quantity from water abstraction associated with SLP growth.	Yes

3.5.22 In summary, the following European sites have been scoped in for further consideration of water quality and water quantity impacts in the HRA process;

- Cannock Extension Canal SAC
- Ensor's Pool SAC
- Fens Pools SAC
- Humber Estuary SAC,
- Humber Estuary Ramsar
- River Mease SAC
- Severn Estuary SAC
- Severn Estuary Ramsar.

3.6 Recreational pressure

3.6.1 Increased recreational pressure at European sites can result in damage to habitats through erosion and compaction, troubling of grazing stock, causing changes in behaviour to animals such as birds at nesting and feeding sites, spreading invasive species, dog fouling and tree climbing etc.

3.6.2 A common approach taken across the UK to address recreational impacts at European sites is to establish a Zone of Influence (ZOI) based on detailed visitor survey data. The ZOI is the area within which there are likely to be significant effects arising from recreational activities undertaken by additional residents due to growth. This is often calculated by taking the distance at which 75% of interviewees surveyed have travelled to reach a particular site (based on a review of visitor survey data).

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. Where available, buffer distances have been applied to determine potential pathways of recreational and urbanisation effects from the SLP.

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.

3.6.5 A review of recreational impact assessments undertaken for other 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 km[84]. However, this review recognises that some visitors are prepared to travel longer distances to visit particular sites, for instance coastal and wetland sites. As such, a precautionary distance of 15km has been applied to the scoping of European sites at which there may be potential recreational impact pathways.

3.6.6 Fens Pools SAC is located to the west (3.2km) of the SLP boundary and is surrounded by urban development with two Public Rights of Way (PRoW) and an off-road cycle route running through the centre. It is also designated as a Local Nature Reserve (LNR) – Buckpool and Fens Pool LNR. No visitor surveys have been undertaken for the SAC and no recreational ZOI has been established. Natural England's Supplementary Advice[85] for the SAC and consultation with the Countryside team at Dudley Council indicates that a key management issue is anti-social behaviour rather than recreational impacts. As such, given the distance of the Plan area from the SAC, it is considered that there will be no LSEs from the SLP from recreation impacts.

3.6.7 Cannock Extension Canal SAC is located approximately 8.2km to the north of the Plan area. Natural England's SIP[86] for the SAC does not indicate that it is sensitive to recreational impacts. Given the presence of other sections of the canal network in closer proximity to Sandwell, it is considered that the SLP will have no LSE upon this SAC in terms of recreational impacts.

[84] 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.

[85] Natural England (2017) Conservation Objectives Supplementary Advice Fens Pools SAC. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030150.pdf [Accessed 28/08/24].

[86] Natural England (2014) Site Improvement Plan: Cannock Extension Canal. Available at: https://publications.naturalengland.org.uk/publication/6103368296562688 [Accessed 18/06/24]

3.6.8 Cannock Chase SAC is located approximately 17km to the north of the Plan area. At Cannock Chase SAC, recreational impacts are known to be an issue for features for which the SAC is designated[87,88]. To manage identified recreational pressures, the Cannock Chase SAC Partnership (composed of 6 Local Planning Authorities, Staffordshire County Council, Natural England, and a number of key stakeholders) was formalised under a Memorandum of Understanding (MOU) in 2016. The MOU sets out a suite of Strategic Access Management and Monitoring Measures (SAMMM) which are funded through financial contributions from new housing developments within 8km of the SAC (the zone within which most frequent visitors originated). In 2017 the Cannock Chase SAC stage 1 Planning Evidence Base Review (PEBR) was undertaken to act as a 'health check' upon the SAMMM, to review the current situation, check if the SAMMM was still fit for purpose, and act as a platform for further work going forward[89]. Since the 2017 review, a further evidence base has been undertaken including updated visitor surveys[90]. It identifies a 15km recreational ZOI. Sandwell lies outside this area and therefore it is considered that there will be no LSEs from the SLP at the SAC from recreation impacts.

3.6.9 In summary, it is unlikely that the SLP will result in recreation LSEs and therefore recreational impacts have been scoped out of the HRA.

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.

3.7.2 As with recreational impacts, urbanisation mitigation strategies have been implemented across the UK through the establishment of buffer zones. Commonly applied urbanisation Zones of Influence extend around 400 – 500m from the edge of a designation as this reflects likely impacts from pets (e.g. cat predation) and the distance from which people access a site on foot.

3.7.3 No European sites are located within or within 500m of the Plan area. Therefore, urbanisation effects are scoped out of the HRA AA.

[87] J. White, R. McGibbon & J. Underhill-Day (2012) Impacts of Recreation to Cannock Chase SAC. Unpublished report. Footprint Ecology.

[88] Liley, D., Underhill-Day, J., White, J. & Sharp, J. (2009) Evidence Base relating to Cannock Chase SAC and the Appropriate Assessment of Local Authority Core Strategies. Footprint Ecology.

[89] Hoskin, R. and Liley, D. (2017) Cannock Chase SAC Planning Evidence Base Review. Unpublished report for the Cannock Chase SAC Partnership.

[90] Panter, C & Liley, D., (2019) Cannock Chase Visitor Survey 2018. Unpublished report by Footprint Ecology for the Cannock Chase SAC Partnership.

3.8 European sites and threats and pressures

3.8.1 **Figure 3.3** and **Figure 3.4** illustrate the location of European sites scoped into the HRA process for further consideration in the screening assessment (**Chapter 4**).

3.8.2 The impact pathways which have the potential to affect these European sites are summarised in **Table 3.4**. These will form the basis of the HRA screening assessment.

Table 3.4: Summary of impact pathways screened in at European sites

Potential impact pathways	Air Pollution	Water Quality and/or Quantity Changes	Recreational Pressure	Urbanisation Impacts
Cannock Extension Canal SAC	Yes	Yes	No	No
Ensor's Pool SAC	No	Yes	No	No
Fens Pools SAC	Yes	Yes	No	No
Humber Estuary SAC	No	Yes	No	No
Humber Estuary Ramsar	No	Yes	No	No
River Mease SAC	No	Yes	No	No
Severn Estuary SAC	No	Yes	No	No
Severn Estuary Ramsar	No	Yes	No	No

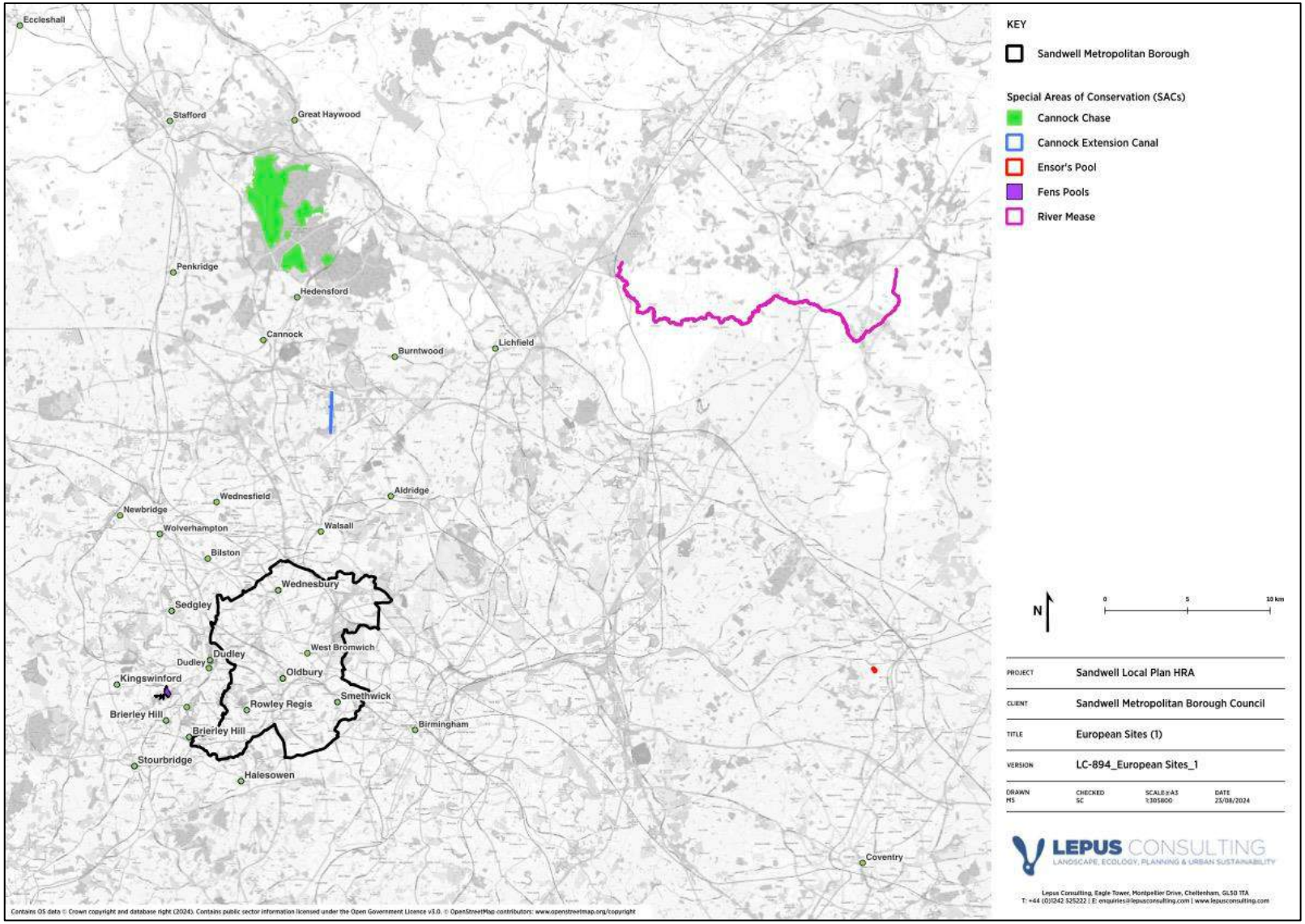

Figure 3.3: *European sites in relation to Sandwell Metropolitan Borough (1)*

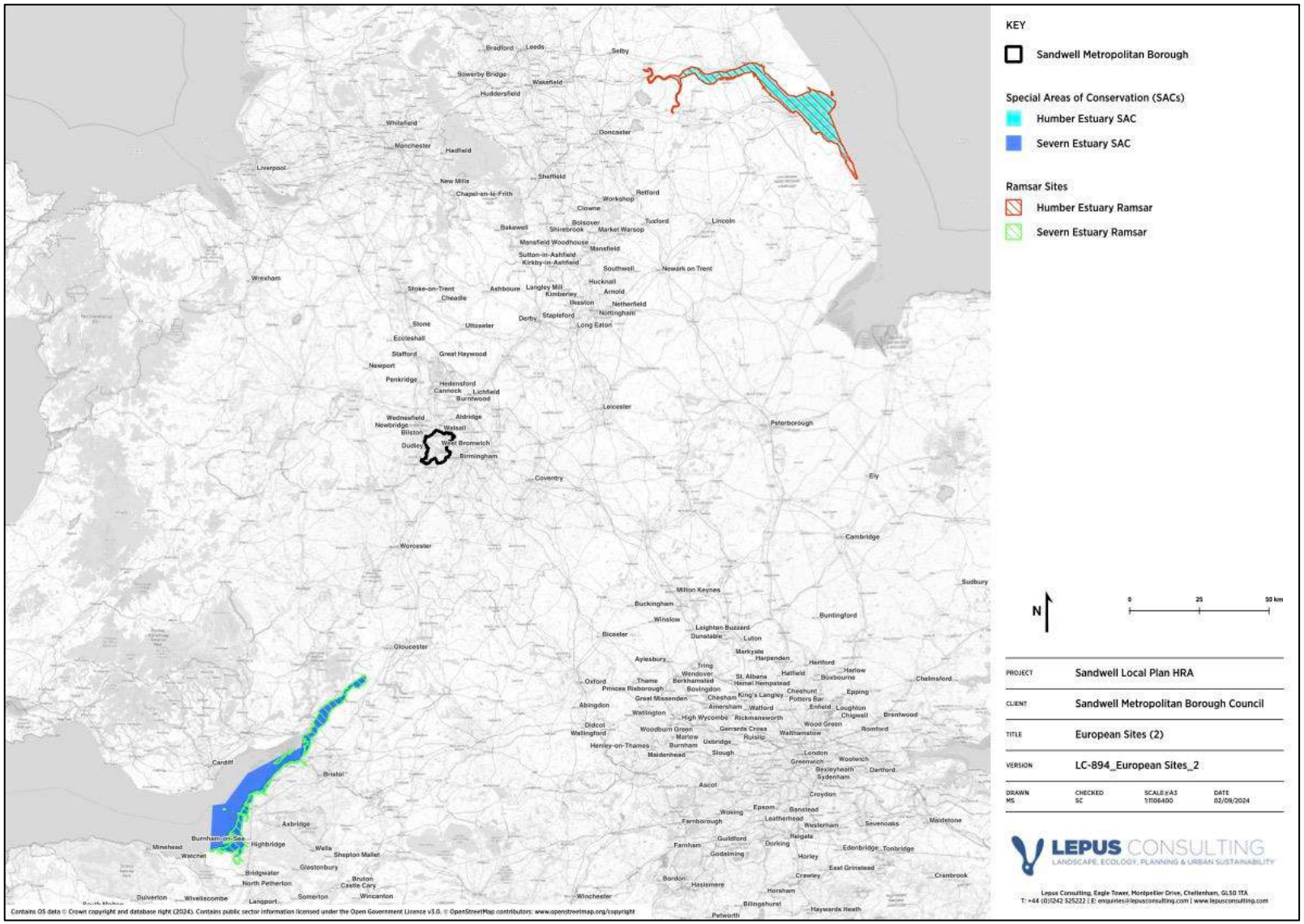

Figure 3.4: *European sites in relation to Sandwell Metropolitan Borough (2)*

4 Screening of the Regulation 19 Sandwell Local Plan

4.1 Policy and allocations screening

4.1.1 Each policy and allocation which forms the SLP has been appraised against the HRA pre-screening criteria (see **Table 2.1**), taking into consideration case law and best practice. **Appendix D** provides the output of this screening exercise. This detailed assessment has informed the test of likely significance i.e. will the SLP have an LSE, alone or in-combination, at a European site.

4.1.2 It is concluded that LSEs, either from the SLP 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:

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

4.1.3 A number of policies were however considered likely to have an LSE on the basis of this assessment as they fall into the following categories:

- Category I: Policies or proposals with a likely significant effect on a site alone;
- Category L: Policies or proposals which might be likely to have a significant effect in combination; and
- Category M: Bespoke area, site or case-specific policies or proposals intended to avoid or reduce harmful effects on a European site.

4.1.4 The following screened in policies (**Table 4.1**) will therefore be explored in the AA (Stage 2 of the HRA process) in more detail.

Table 4.1: Summary of screened in policies (Note: only policies screened into the HRA process have been included in the summary table below. The screening outcome for all policies and allocations is provided at Appendix D)

Policy Number	Policy Name	Screening Category
Policy SDS1	Spatial Strategy for Sandwell	L
Policy SDS3	Regeneration in Sandwell	L
Policy SDS4	Towns and Local Areas	L
Policy SHO1	Delivering Sustainable Housing Growth	L
Policy SHO2	Windfall Developments	L
Policy SHO9	Accommodations for Gypsies and Travellers and Travelling Showpeople	L
Policy SEC1	Providing for Economic Growth and Job Creation	L

Policy Number	Policy Name	Screening Category
Policy SWB2	Development in West Bromwich	L
Policy SWA3	Preferred Areas for New Waste Facilities	L

4.1.5 No SLP allocations (see **Appendix D**) were considered to have a potential LSEs on European sites due to their distance from European sites. Allocations were therefore not screened into the HRA process.

4.1.6 LSEs were identified at the following European sites:

- Cannock Extension Canal – air quality and water quality/quantity LSEs;
- Ensor's Pool SAC – water quantity LSE;
- Fens Pools SAC – air quality and water quality/quantity LSEs;
- Humber Estuary SAC – water quality LSE at functionally linked watercourses;
- Humber Estuary Ramsar – water quality LSE at functionally linked watercourses;
- River Mease SAC – water quantity LSE;
- Severn Estuary SAC – water quality LSE at functionally linked watercourses;
- Severn Estuary Ramsar – water quality LSE at functionally linked watercourses.

4.2 Screening conclusion

4.2.1 As required under Regulation 105 of the Habitats Regulations, an assessment of LSEs of the SLP upon European sites has been undertaken. The screening checks (**Appendix D**) indicate that the SLP has the potential to have LSEs on a number of European sites, both alone, and for a number of policies and allocations, in-combination. The SLP is not directly connected with or necessary to the management of any European site. The screening assessment takes no account of mitigation measures that the SLP may incorporate to mitigate adverse impacts upon European sites. It is therefore concluded that the SLP 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 following chapter of the AA focuses on assessing more precisely the ecological impacts of air pollution on the following qualifying features of Cannock Extension Canal SAC and Fens Pools SAC as set out in **Chapter 3** due to SLP growth alone and in-combination.

5.1.2 The following policies were screened into the HRA process for consideration in an AA due to likely significant air quality impacts (**Appendix D**):

- Policy SDS1 – Spatial Strategy for Sandwell
- Policy SDS3 – Regeneration in Sandwell
- Policy SDS4 – Towns and Local Areas
- Policy SHO1 – Delivering Sustainable Housing Growth
- Policy SHO2 – Windfall Developments
- Policy SHO9 – Accommodations for Gypsies and Travellers and Travelling Showpeople
- Policy SEC1 – Providing for Economic Job Growth and Job Creation
- Policy SWB2 – Development in West Bromwich
- Policy SWA3 – Preferred Areas for New Waste Facilities

5.1.3 All site allocations set out in the SLP have the potential to act cumulatively to increase traffic flows on the local and wider road network. An increase in traffic related emissions from all allocations cumulatively has the potential to change air quality at European sites both alone and in-combination when considered with growth in neighbouring LPA areas.

5.1.4 This assessment follows Natural England's current guidance and therefore assesses the likely effects to inform a conclusion as to whether an adverse effect on site integrity can be ruled out. The assessment also draws on the Chartered Institute of Ecology and Environmental Management (CIEEM's) guidance following a six-step methodology. It includes consideration of factors such as:

- Action needed to protect the condition of the European sites;
- The expected future trend in pollutants of concern (and the scientific reasonableness of any trend);
- The magnitude of any future 'in combination' dose and how it may change the trend; and,
- The physical extent of the affected area as a proportion of that interest feature within the European sites[91].

[91] CIEEM (January 2021) Paragraph 20. Advisory Note: Ecological Assessment of Air Quality Impacts.

5.2 Baseline information: Cannock Extension Canal SAC

5.2.1 Cannock Extension Canal SAC is a rich waterway and part of the extensive inland water system through Birmingham and the Black Country. The closest point of the designation is located approximately 8km to the north of the Plan area.

5.2.2 The qualifying feature of the Cannock Extension Canal SAC is Floating Water-plantain (*Luronium natans)*[92]. Natural England's Supplementary Advice[93] for the SAC notes that Floating water-plantain is 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 'restore as necessary the concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for these features of the site on the Air Pollution Information System'. This 'restore' objective represents current baseline exceedances of critical loads. Any further deterioration therefore of air quality at the SAC as a result of the SLP either alone or in-combination with other plans and projects has the potential to have adverse impacts on the integrity of the SAC.

5.2.3 Cannock Extension Canal SAC is underpinned by the Cannock Extension Canal SSSI which is split into two SSSI units. One of these units (001) is in an 'unfavourable-recovering' condition and the other (002) is in a 'favourable' condition, determined by the condition of its qualifying feature[94]. The 'unfavourable-recovering' condition status relates to the presence of Floating Pennywort (*Hydrocotyle ranunculoides*) and Azolla (aquatic ferns) which are both invasive species that adversely affect the native freshwater ecosystem.

5.2.4 The Air Quality Report[95] sets out published Defra and APIS background data relating to annual mean NOx and NH_3 concentrations in addition to annual nitrogen deposition rates at each European sites in Table 4.2 of **Appendix C** and projects future background levels to 2042. In addition, the Air Quality Report presents critical levels and critical load ranges that represent the environmental benchmarks adopted for each European site according to their qualifying features (Table 4.3 of **Appendix C**). These critical levels and critical load ranges for Cannock Extension Canal SAC are summarised in **Table 5.1**.

[92] Natural England. (2018) Cannock Extension Canal SAC Conservation Objectives. Available at: https://publications.naturalengland.org.uk/publication/5063623810482176 [Accessed: 04/06/24].

[93] Natural England. (2019) Cannock Extension Canal SAC. Supplementary Advice. Available at: https://publications.naturalengland.org.uk/publication/5063623810482176 [Accessed: 04/06/24].

[94] Natural England. Designated Sites View: Cannock Extension Canal SAC. https://designatedsites.naturalengland.org.uk/SiteUnitList.aspx?SiteCode=S1006558&SiteName=cannock%20extension&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea= [Accessed: 07/08/24].

[95] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

Table 5.1: Critical Loads and Levels at Cannock Extension Canal SAC

European site	Qualifying habitat or habitat upon which qualifying species relies	NOx Annual Critical Level (μg/m^3)	NH_3 Annual Mean Critical Level (μg/m^3)	N-Deposition Critical Load (kg N/ha/yr)
Cannock Extension Canal SAC	Permanent oligotrophic waters: Softwater lakes	30	3	10

5.2.5 The background (2022) and future background (2042) NOx and NH_3 concentrations are below the annual mean critical levels at Cannock Extension Canal SAC. Background nitrogen deposition rates in both the baseline and future years are projected to exceed the respective lower critical loads at the SAC. Levels in 2022 are 17.2–17.3 kgN/ha/yr, with levels in 2024 decreasing to 15.4-15.5 kgN/ha/yr[96].

5.2.1 Two road links within 200m of Cannock Extension Canal SAC were included in the air quality modelling as they exceeded the 1,000 AADT screening threshold (see **Section 3.4**). These include the A5 Watling Street (RAP 10) and B4154 Lime Street (RAP 11) as illustrated in **Figure 5.1**.

[96] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

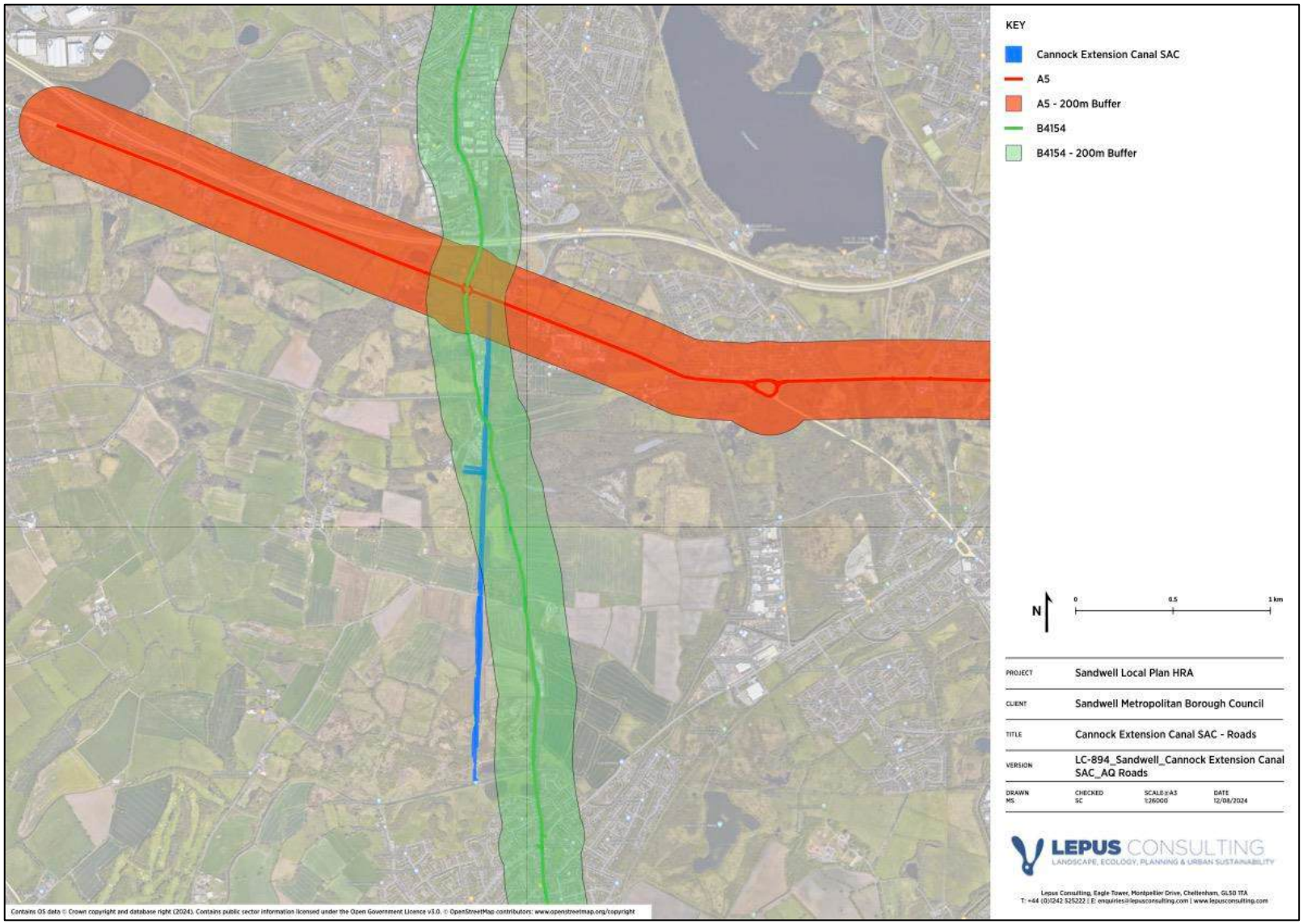

Figure 5.1: *Roads in exceedance of 1,000 AADT within 200m of Cannock Extension Canal SAC*

5.3 Baseline information: Fens Pool SAC

5.3.1 Fens Pools SAC is located within Dudley, approximately 3.1km to the west of the Plan area. The qualifying feature of Fens Pools SAC is the Great Crested Newts (GCN, *Triturus cristatus*)[97]. As set out in Natural England's Supplementary Advice[98], the GCN is sensitive to air pollution. Natural England indicates that a change in air quality has the potential to 'modify the chemical status of its substrate, accelerating or damaging plant growth, altering its vegetation structure and composition (including food-plants) and reducing supporting habitat quality and population viability of this feature'. 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 GCN supporting habitats on the Air Pollution Information System'. Therefore, any further deterioration of air quality at the SAC as a result of the SLP either alone or in-combination with other plans and projects has the potential to have adverse impacts on the integrity of the SAC.

5.3.2 Fens Pools SAC is underpinned by Fens Pool SSSI which is split into six SSSI units, all of which are in a favourable condition[99].

5.3.3 The critical levels and critical load ranges for Fens Pools SAC, as set out in the Air Quality Report (Table 4.3 of **Appendix C**), are summarised in **Table 5.2**.

Table 5.2: Critical Loads and Levels at Fens Pools SAC

European site	Qualifying habitat or habitat upon which qualifying species relies	NOx Annual Critical Level (μg/m^3)	NH_3 Annual Mean Critical Level (μg/m^3)	N-Deposition Critical Load (kg N/ha/yr)
Fens Pools SAC	Permanent oligotrophic waters: Softwater lakes	30	3	10

5.3.4 The background (2022) and future (2042) NOx and NH_3 concentrations are below the annual mean critical levels at Fens Pools SAC[100] (Table 4.2 of **Appendix C**). Background nitrogen deposition rates in both the baseline and future years are projected to exceed the respective lower critical loads at the SAC. Levels in 2022 are 16.6–17.0 kgN/ha/yr at Fens Pools SAC reducing in 2042 to 14.9-15.2 kgN/ha/yr[101].

[97] Natural England. (2018) Fens Pools SAC Conservation Objectives. Available at: https://publications.naturalengland.org.uk/publication/5327609814581248 [Accessed: 04/06/24].

[98] Natural England. (2019) Fens Pools SAC. Supplementary Advice on Conservation Objectives. Available at: https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK0030150&SiteName=fens%20pools&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [Accessed: 04/06/24].

[99] Natural England. SSSI Condition Summary: Fens Pools SSSI. Available at: https://designatedsites.naturalengland.org.uk/SiteUnitList.aspx?SiteCode=S1003757&SiteName=fens%20pools&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea= [Accessed: 19/06/24].

[100] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

[101] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

5.3.5 Two road links within 200m of Fens Pools SAC were included in the air quality modelling as they exceeded the 1,000 AADT screening threshold (see **Section 3.4**). These include the A4101 High Street (RAP 12) and A461 (RAP 13) as illustrated in **Figure 5.2**.

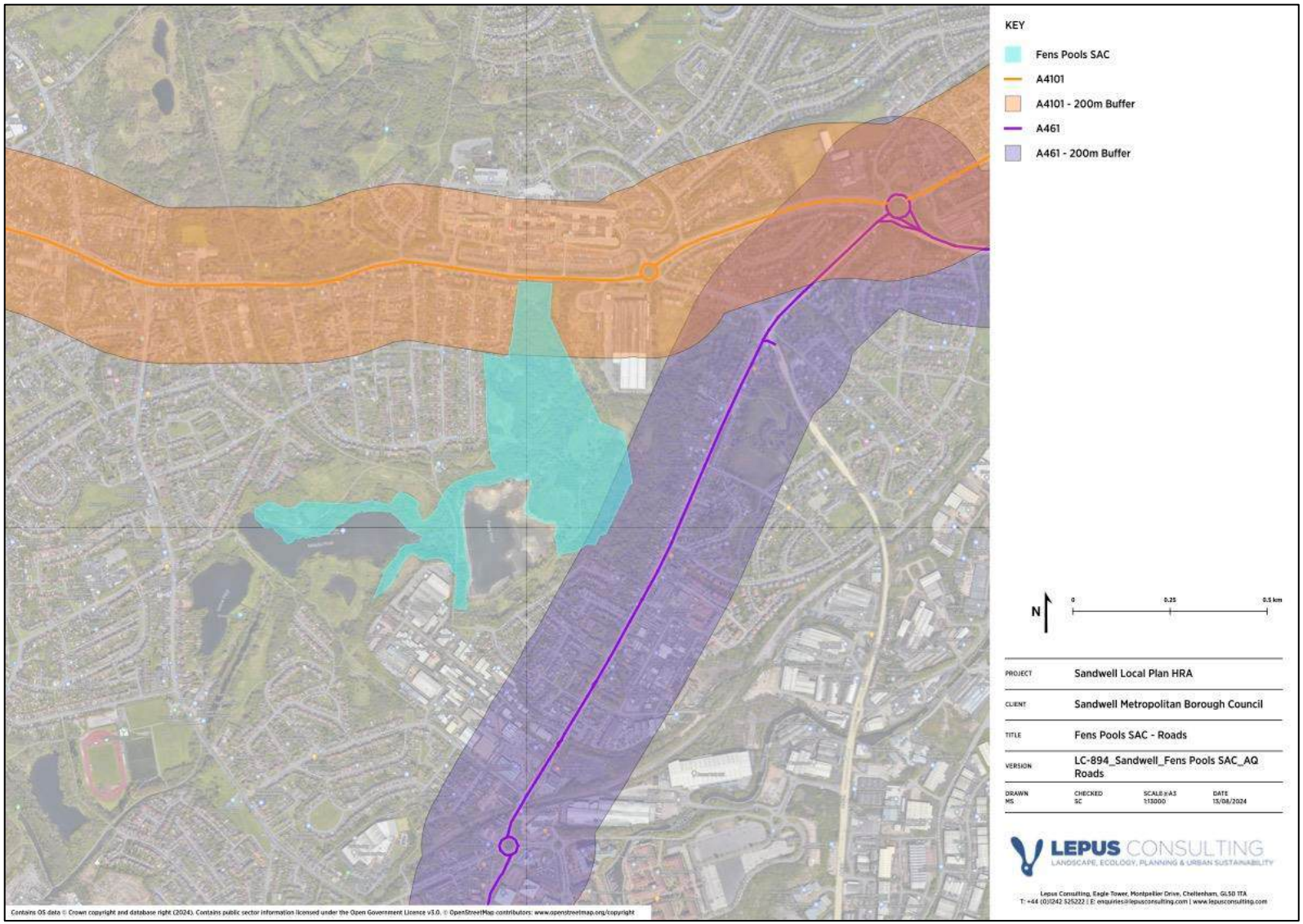

Figure 5.2: *Roads in exceedance of 1,000 AADT within 200m of Fens Pools SAC*

5.4 Mitigation

5.4.1 Policies set out in the SLP (see **Table 5.3**) incorporate measures for sustainable transport and a requirement to encourage a modal shift and promote active transport options (see **Appendix D**). These measures will have a positive impact upon air quality by discouraging the use of the private car and encouraging use of electric vehicles.

Table 5.3: SLP policies with mitigating effects on air quality LSEs

Policy Number	Policy Name	How does the policy mitigate air quality LSEs?
Policy SDS1	Spatial Strategy for Sandwell	This policy supports active and sustainable travel across the borough.
Policy SDS2	Increasing efficiency and resilience	This policy requires new development to include a range of sustainable and low carbon transport modes to encourage a modal shift.
Policy SDS3	Regeneration in Sandwell	This policy outlines sustainable and active travel modes as the default choice for movement within the town.
Policy SDS4	Towns and Local Areas	This policy encourages walking and cycling.
Policy SDS5	Achieving Well-designed Places	This policy promotes active travel.
Policy SDS6	Cultural Facilities and the Visitor Economy	This policy ensures development is well connected by public transport.
Policy SNE6	Canals	This policy encourages integrated pedestrian and cycle networks.
Policy SHW2	Health Infrastructure	This policy requires all new healthcare developments to be well served by public transport and walking and cycling facilities.
Policy SWH3	Air Quality	This policy promotes a modal shift and requires the integration of walking and cycling facilities, public transport and electric charging points. Further details of this policy are set out in **Box 1**.
Policy SWH4	Open Space and Recreation	This policy supports informal physical activity through the development of footpath and cycle network infrastructure.
Policy SHW5	Playing Fields and Sports Facilities	This policy ensures sports facilities are well-linked to public transport, footpath and cycleway networks.
Policy SHO3	Housing Density, Type and Accessibility	This policy requires the density and type of housing development to be informed by the level of accessibility by sustainable transport.
Policy SHO8	Education Facilities	This policy ensures education facilities are well-served by public transport, walking and cycling facilities.
Policy SEC5	Improving Access to the Labour Market	This policy aims to enhance the accessibility of employment development through walking, cycling and public transport.
Policy SCE1	Sandwell's Centres	This policy aims to enhance the vitality, accessibility and sustainability of centres through the provision of pedestrian and cycle networks.
Policy SCE5	Provision of Small-Scale Local Facilities not in Centres	This policy requires these facilities to be accessible by means other than car.
Policy SCE6	Edge of Centre and Out of Centre Development	This policy requires these facilities to be accessed by public transport, walking and cycling.

Policy Number	Policy Name	How does the policy mitigate air quality LSEs?
Policy SWB1	West Bromwich Town Centre	This policy aims to create sustainable travel networks across centre and into surrounding locations.
Policy SWB2	Development in West Bromwich	This policy promotes sustainable modes of transport in large developments in West Bromwich.
Policy STR1	Priorities for the Development of the Transport Network	This policy requires all new developments to provide access for all modes of travel, prioritizing walking, cycling and public transport to support active travel and encourage modal shift.
Policy STR2	Safeguarding the Development of the Key Route Network (KRN)	This policy focuses on reducing the impact of private car use on the key route network and delivering a net-zero transport system.
Policy STR3	Managing Transport Impacts of New Development	This policy requires mitigation schemes to encourage access by walking, cycling, public transport and shared transport to promote modal shift.
Policy STR4	The Efficient Movement of Freight and Logistics	This policy encourages rail and waterway use and low emission vehicles (LEVs).
Policy STR5	Creating Coherent Networks for Cycling and Walking	This policy aims to create and maintain comprehensive cycle networks and walking links to public transport.
Policy STR6	Influencing the Demand for Travel and Travel Choices	This policy considers traffic management to manage car usage and demand, encourage behaviour change and increase the use of sustainable modes of transport.
Policy STR7	Network Management	This policy encourages the use of smart technology to monitor traffic and collect data for future planning.
Policy STR8	Parking Management	This policy encourages cycling through the provision of convenient, secure and accessible cycle parking.
Policy STR9	Planning for Low Emission Vehicles	The policy sets out the requirements for LEVs proposal to encourage LEV use.
Policy STR10	Transport Innovation and Digital Connectivity	This policy encourages the use of smart infrastructure to prioritise sustainable transport modes.
Policy SCO2	Pollution Control	This policy ensures that development will not individually or cumulatively contribute to the production of poor air quality.
Policy SDM3	Tall Buildings and Gateway Sites	This policy ensures there is sufficient access to public transport for all occupants and users.

5.4.2 Together these policies aim to protect air quality as a result of growth in the SLP and have been taken into consideration during the examination of adverse air quality impacts in the following AA.

Box 1: Extract from Policy SHW3 – Air Quality

The SLP will support a diverse approach to addressing the issue of poor air quality across the borough including the following:

1. Require development and other land use proposals to promote the integration of cycling, walking, public transport and electric charging points as part of their transport provision.
2. Promote and support (including through continued joint working with adjacent Black Country authorities and others) a modal shift from private motorised vehicles to the use of clean, fast and accessible public transport alternatives such as rail, the Metro and bus transport networks, cycling and walking.
3. Ensure the sustainable location of new residential and employment development to minimise commute times.
4. As part of an integrated zero-emission public transport system, promote and require the use of sustainable technologies, zero-emission vehicles, design and materials and provide new or extended bus services to meet demand when development of a strategic nature is planned and constructed.
5. New development must demonstrate how its occupiers and users would be affected by air quality and how the development itself affects air quality. Planning permission for new development or changes of use will be refused where data assessment indicates that development will lead to a deterioration in poor air quality or create new areas that exceed air quality objectives unless sufficient mitigation can be achieved.

5.4.3 The West Midlands Local Transport Plan[102] (LTP) aims to promote a safe, integrated, efficient and economic transport system and outlines a vision for improving accessibility, reducing traffic and electrifying transport. The LTP focuses on an emission free transport system alongside encouraging a behavioural change towards active travel including public transport, walking and cycling. There are also a number of national initiatives to reduce vehicle related emissions, such as the Starmer's Labour Government commitment to restore the phase out of new petrol and diesel vehicles by 2030[103].

5.4.4 Acting together, the SLP policies, county and national led initiatives will promote sustainable transport options with reductions in reliance on the private car and associated reductions in traffic emissions.

5.5 Appropriate Assessment: Cannock Extension Canal SAC

5.5.1 As noted in **paragraph 3.4.5**, air quality modelling was commissioned to better define air quality impacts and is reported upon in the Air Quality Report (**Appendix C**). The extent of the receptors modelled is illustrated in **Appendix C**. The outputs are presented by the following pollutants: nitrogen oxides, ammonia and nitrogen deposition.

[102] West Midlands Combined Authority. 2016. West Midlands Strategic Transport Plan. Available at: at https://www.tfwm.org.uk/who-we-are/our-strategy/local-transport-plan/ [Date Accessed: 19/06/24].

[103] Labour (2024) Driving a Growing Economy Labour's Plan for the Automative Sector. Available at: https://labour.org.uk/wp-content/uploads/2023/10/WR-797_23-Automotive-strategy-v8.pdf [Accessed 13/08/24].

Nitrogen oxides

5.5.2 The air quality modelling indicates that the maximum modelled annual mean concentration in the 'with plans' scenario[104] (21.9 μg/m^3) remains well below the critical level for NOx (30 μg/m^3). Given there will be no exceedance of the NOx critical level at the SAC and taking into consideration the improvement in trend data (**paragraph 5.2.5**), direct toxicity is not likely to have an adverse impact on the qualifying species of the SAC and therefore no adverse impact on site integrity (AIOSI). However, it is necessary to consider the contribution of NOx to nitrogen deposition further through the AA. This will allow a habitat specific assessment of potential impacts associated with emissions.

Ammonia

5.5.3 The Air Quality Report indicates that the maximum modelled annual mean concentration in the 'with plans' scenario (2.98 μg/m^3), which was modelled directly adjacent to the A5 Watling Street within the boundary of the road itself, is below the critical level (3 μg/m^3). This represents a maximum increase of 0.12 μg/m^3 from the future baseline scenario (2042) or 2.89 μg/m^3.

5.5.4 Trend data taken from APIS for ammonia shows that in the 1km grid square directly adjacent to the A5, levels of ammonia have dropped since 2003 from 1.6 μg/m^3 to 1.5 μg/m^3 in 2021.

5.5.5 Given the maximum ammonia level adjacent to the A5 and on the boundary of the SAC designation is below the critical load, and trend data illustrates declining levels, it is considered that ammonia is unlikely to have an AIOSI at the SAC as a consequence of SLP proposals in-combination with other plans.

5.5.6 Whilst the critical level is not exceeded for the SLP in-combination, it is necessary to consider the contribution of ammonia to nitrogen deposition further through the AA. This will allow a habitat specific assessment of potential impacts associated with emissions.

Nitrogen deposition

5.5.7 Nitrogen deposition rates are habitat specific as different habitats have different tolerances to different levels. There is one critical load range for the SAC of 10 kgN/ha/yr for 'permanent oligotrophic waters: softwater lakes' which comprises the habitat type which supports the qualifying feature of the SAC.

5.5.8 The Air Quality Report (**Appendix C**) provides modelled results for nitrogen deposition at each road link for the in-combination (with plans) scenario.

[104] The 'with plans' scenario set out in the Air Quality Report represents an 'in-combination' scenario i.e. SLP in combination with other plans and projects.

5.5.9 In order to assess the impact from increased nitrogen deposition, an AA and ecological interpretation has been undertaken in compliance with best practice methodology following Institute of Air Quality Management (IAQM)[105] methods and CIEEM's step-wise approach[106] as outlined below.

Step 1: Identifying the baseline ecological features and air quality levels

5.5.10 The baseline ecological features and current air quality levels at these features are presented in **Section 5.2**.

Step 2: Assessing confounding factors, background pollution trends and the sensitivity of the receptor

5.5.11 APIS source attribution data for Cannock Extension Canal SAC is shown in **Figure 5.3** and indicates that the majority of nitrogen deposition at the SAC comes from livestock (29%), with 6.5% from fertiliser and 11.1% from road transport[107].

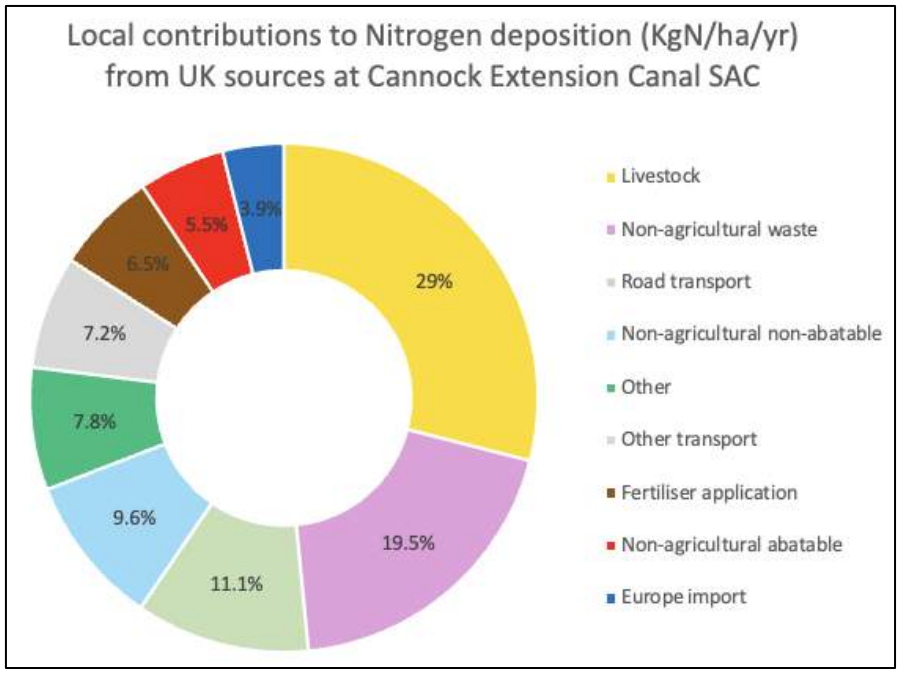

Figure 5.3: *Local contributions to Nitrogen deposition (KgN/ha/yr) from UK sources at Cannock Extension Canal SAC*

5.5.12 A review of background air quality trends provided on APIS[108] indicates that nitrogen deposition has decreased by 5.2 kgN/ha/yr from 2003 (15.98 kgN/ha/yr) to 2021 (10.92 kgN/ha/yr) across the SAC. This decreasing trend reflects the reduction in projected baseline levels at the SAC from 2022 to 2042 as presented in the Air Quality Report (**paragraph 5.2.5**).

[105] Holman et al (2020). A guide to the assessment of air quality impacts on designated nature conservation sites – version 1.1, Institute of Air Quality Management, London.
106 CIEEM (2021) Advice on Ecological Assessment of Air Quality Impacts. Chartered Institute of Ecology and Environmental Management. Winchester, UK.
[107] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.
[108] APIS. Available at: https://www.apis.ac.uk/srcl [Accessed: 07/08/24].

Step 3: Is the critical load or level exceeded?

5.5.13 The air quality modelling indicates that both the future baseline and also the in-combination 'with plans' scenario will result in an exceedance of the critical level for nitrogen deposition of 10 kgN/ha/yr across the whole SAC.

5.5.14 A maximum total annual nitrogen deposition rate for the 'with plans' or 'in-combination' scenario is provided in the Air Quality Report in Table 5.4 (**Appendix C**) of 22.1 kgN/ha/yr. This includes background nitrogen deposition levels across the SAC. A total of 22.1 kgN/ha/yr represents a maximum change of 0.7 kgN/ha/yr from future baseline levels (which are predicted to be 21.4 kgN/ha/yr in 2042).

5.5.15 As set out in **paragraph 3.4.7,** it is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance[109,110,111]. The air quality modelling results illustrate that receptors where nitrogen deposition levels are at their greatest, above 20 kgN/ha/yr, are focused in a small area where the B4154 crosses the Canal and at the furthest northern point of the SAC where it runs close to the A5. Concentrations decrease rapidly from both road links and are below 18.5 kgN/ha/yr within 70m of the A5 and 15m of the B4154. The lowest maximum nitrogen deposition concentration across the SAC is 15.4 kgN/ya/yr which remains 5.4 kgN/ha/yr over the critical load.

5.5.16 The maximum total road contribution to annual nitrogen deposition across the SAC is shown in the modelling to be 6.7 kgN/ha/yr. This level does not include background contributions to nitrogen deposition. The relative contribution from the road links modelled in a 'with plans' scenario decreases as distance from road source increases. Levels are greatest closest to the modelled road links (A5 and B4154) but reduce as distance from each road link increases. Levels reduce to under 2 kgN/ha/yr within less than 70m from each road link. The contribution from road sources alone in a 'with plans' scenario within the southern area of the SAC are below 1 kgN/ha/yr.

5.5.17 This data suggests that background levels provide a large contribution to exceedances of the nitrogen critical load across the SAC.

Step 4: Apply critical loads and critical levels with expert judgement

[109] 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.

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

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

5.5.18 Exceedances of critical loads for nitrogen deposition may modify the chemical status of the substrate, accelerating or damaging plant growth, altering its vegetation structure and composition and causing the loss of sensitive typical species associated with it. A literature review indicates that Floating Water-plantain appears to have a very wide range of chemical and substrate tolerances and is intolerant to competition from other plants. A change in chemical composition of water within the Cannock Extension Canal SAC may therefore allow other, more nitrogen tolerant plants, to dominate and out compete Floating Water-plantain[112].

5.5.19 The conservation advice for the SAC is to 'restore' air pollutants to at or below the relevant critical load (**paragraph 5.2.2**). Floating Water-plantain is often described as being characteristic of oligotrophic waters (low nutrient content). However, it is also recorded from meso-oligotrophic, mesotrophic (moderate amount of dissolved nutrients) and meso-eutrophic to eutrophic waters (high amount of dissolved nutrients)[113].

5.5.20 The critical load range for nitrogen deposition taken from APIS in the Air Quality Report is for 'permanent oligotrophic waters: soft-water lakes' (10 kg/N/ha/yr, see **Table 5.1**). As noted in **paragraph 5.2.5**, background nitrogen deposition rates in both the baseline and future years are projected to exceed the critical load at the SAC. Levels in 2022 are 17.2–17.3 kgN/ha/yr, with levels in 2024 decreasing to 15.4-15.5 kgN/ha/yr114.

5.5.21 This critical load (10 kg/N/ha/yr) applies if the qualifying feature (Floating Water-plantain) is associated with soft-water oligotrophic lakes. APIS notes that this critical load should only be applied to oligotrophic waters with low alkalinity with no significant agricultural or other human inputs. The Conservation Advice for the SAC indicates that there are a number of drains which feed into the canal from adjacent land, including one from Wyrley Common, which contains colliery shale waste in the water. To the north of the canal, land-uses include a restored (and sealed) refuse tip, boatyard and moorings on the offside and woodland, fishing pool and arable agriculture on the tow-path side up to the A5 trunk road[115].

[112] Lansdown RV & Wade PM (2003). Ecology of the Floating Water-plantain, *Luronium natans*. Conserving Natura 2000 Rivers Ecology Series No. 9. English Nature, Peterborough. Available at: https://publications.naturalengland.org.uk/file/111042 [Date Accessed: 26/06/24].

[113] Lansdown RV & Wade PM (2003). Ecology of the Floating Water-plantain, *Luronium natans*. Conserving Natura 2000 Rivers Ecology Series No. 9. English Nature, Peterborough. Available at: https://publications.naturalengland.org.uk/file/111042 [Accessed: 26/06/24].

[114] Sweco (2024) Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell and Dudley.

[115] Natural England (2018). European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Cannock Extension Canal Special Area of Conservation (SAC) Site Code: UK0012672.

5.5.22 Canals are artificial waterbodies which were constructed for navigation and comprise lentic (slow moving) systems. The Cannock Extension Canal forms part of the Birmingham Canal Navigation network, comprising an extension off the Wyrley and Essington Canal. It is unlikely that soft-water oligotrophic lakes are representative of the Cannock Extension Canal SAC, as canals are typically representative of eutrophic standing waterbodies. Their connectivity with the surrounding landscape and drainage systems governs nutrient levels. Deposition of nitrogen from the atmosphere is however unlikely to be the most significant source of nutrient inputs to eutrophic standing waters such as canals when compared to other sources of nitrogen. These other sources may include agricultural run-off, discharge from wastewater treatment works, industry and surface water run-off as illustrated in **Figure 5.3**. Therefore, in general, atmospheric nitrogen deposition is unlikely to be harmful to eutrophic standing waters[116]. Data presented on APIS indicates that phosphorous is likely to be more important than nitrogen in terms of algal growth and nutrient enrichment in standing waterbodies such as canals.

5.5.23 Natural England's publications suggests that light boat traffic and management may supress competition from other more dominant plants and therefore work in favour of Floating Water-plantain[117]. The Cannock Extension Canal is navigable and subject to management including dredging activities. Natural England note that the principal threat in Britain to Floating Water-plantain is now from the restoration of waterways and the expansion of recreational boating activities[118].

5.5.24 Given the small in-combination contribution of nitrogen deposition levels (maximum 0.7 kgN/ha/yr) when compared to background levels, the reduction in 'with plans' contributions across the SAC as distance from road link increases, the high contribution of existing background levels, decreasing background trends which show an improvement in deposition levels, the importance of light boat traffic to maintenance of Floating Water-plantain populations and taking into consideration the policy provisions set out in **Section 5.4**, it can be concluded that there will be no in-combination AIOSI at the SAC in relation to reduced air quality caused by the SLP in combination. The SAC targets in respect of air quality to 'restore concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the APIS' will not be compromised as a result of the SLP alone or when considered in-combination.

5.6 Appropriate Assessment: Fens Pools SAC

5.6.1 As noted in **paragraph 3.4.5**, air quality modelling was commissioned to better define air quality impacts and is reported upon in the Air Quality Report (**Appendix C**). The extent of receptors modelled is illustrated in **Appendix C**. The outputs are presented by the following pollutants: nitrogen oxides, ammonia and nitrogen deposition.

[116] APIS Nitrogen Deposition: Standing Open Water and Canals. Available at: https://www.apis.ac.uk/node/983 [Date Accessed: 08/08/24].

[117] Natural England (2018) Conservation Objectives Supplementary Advice Cannock Extension Canal SAC. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012672.pdf [Accessed 27/08/24].

[118] Lansdown RV & Wade PM (2003). Ecology of the Floating Water-plantain, *Luronium natans*. Conserving Natura 2000 Rivers Ecology Series No. 9. English Nature, Peterborough. Available at: https://publications.naturalengland.org.uk/file/111042 [Accessed: 26/06/24].

Nitrogen Oxides

5.6.2 The air quality modelling indicates that the maximum modelled annual mean concentration in the 'with plans' scenario (26.3 μg/m^3) remains below the critical level for NOx (30 μg/m^3). Given there will be no exceedance of the NOx crucial level at the SAC and taking into consideration the improvement in trend data (**paragraph 5.3.4**), direct toxicity is not likely to have an AIOSI on the SAC. However, it is necessary to consider the contribution of NOx to nitrogen deposition further through the AA. This will allow a habitat specific assessment of potential impacts associated with emissions.

Ammonia

5.6.3 The Air Quality Report indicates that the maximum modelled annual mean concentration in the 'with plan' scenario (3 μg/m^3), was exceeded at four receptor points all of which are located immediately adjacent to the A4101 on the boundary of the SAC. The level at these points is marginally above the critical level (3 μg/m^3). Modelled data for all other receptors across the SAC are below the critical level.

5.6.4 Trend data taken from APIS for ammonia shows that in the 1km grid square directly adjacent to the A4101 (High Street), levels of ammonia have dropped since 2003 from 1.7 μg/m^3 to 1.4 μg/m^3.

5.6.5 As set out in **Section 5.3**, Fens Pools SAC is designated for GCN which rely on water bodies to breed during the aquatic stages of their life cycle. They are known to travel approximately 500m from their breeding pond habitat during the terrestrial phase of their lifecycle depending on resource availability[119] and forage, disperse and rest on land.

[119] Langton, T.E.S.; Beckett, C. L.; Foster, J. P. (2001) Great Crested Newt Conservation Handbook, Froglife, Halesworth. Available at: https://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook_compressed.pdf [Accessed 05/07/24].

5.6.6 A total of 1.97ha of the SAC is located within 200m of the A4101 and a total of 0.87ha of the SAC is located within 200m of the A461. This represents 9.6% and 4.3% of the total area of Fens Pools SAC respectively. Fens Pools SAC is predominantly in the ownership of Dudley Council and the CRT, with smaller areas owned by private landowners. Consultation with Dudley Council Countryside Management Team indicates that recent GCN surveys show that the closest GCN breeding pond to the A4101 is located over 300m to its south[120]. As set out in **paragraph 3.4.7,** it is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance[121,122,123]. The nearest GCN breeding pond is therefore beyond the 200m buffer over which a change in air quality is likely to have an adverse effect from each road link. The closest GCN breeding pond to the A461 is located approximately 150m to its west. Potential terrestrial habitat is however located within 200m of both the A4101 and A461.

5.6.7 The main ponds (Fens Pool, Middle Pool, Grove Pool and Wide Waters) do not support GCN, due in part to the presence of large populations of carp. Recent GCN surveys undertaken in 2024 which were shared with Dudley Council Countryside Management Team, indicate that the smaller GCN breeding ponds are in a good condition with newts recorded at each.

5.6.8 Natural England's SIP[124] and consultation with Dudley Council Countryside Management Team indicates that anti-social behaviours, such as use of off-road vehicles, unlicensed grazing, use of larger ponds by anglers, campfires, night fishing, the presence of non-native alpine newts and fragmentation of GCN habitat are a particular risk to GCN populations at the site.

5.6.9 Dudley Council is working on the creation of a GCN corridor to connect the landscape and provide connectivity between Fens Pools SAC and Barrow Hill SSSI, on to Aldersley Sports Village in Wolverhampton and finally Bagridge Country Park in South Staffordshire. Dudley Council is currently carrying out GCN enhancement work at Barrow Hill SSSI.

[120] Pers Cons 19th June 2024. Dudley Council Countryside Management Team.

[121] 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.

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

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

[124] Natural England (2014) Site Improvement Plan: Fens Pool. Available at: https://publications.naturalengland.org.uk/publication/6307825315741696 [Accessed 19/06/24]

5.6.10 The maximum modelled annual ammonia mean concentration in the 'with plan' scenario (3 μg/m^3), was exceeded at only four receptor points all of which are located immediately adjacent to the A4101 on the boundary of the SAC and which are not coincident with the GCN breeding ponds. Modelled data for all other receptors across the SAC shows concentrations are below the critical level. Taking this into consideration, alongside the location of GCN breeding ponds from the A4101 (more than 300m), the favourable condition of the SAC, positive measures in place by Dudley Council to enhance and extend GCN habitat within the wider landscape (**paragraph 5.6.9**) and positive effect of the SLP and wider policy framework to improve air quality (**Section 5.4**) it can be concluded that there will be no AIOSI from an increase in ammonia.

5.6.11 Whilst the critical level is not exceeded for the SLP in-combination, with the exception of four receptor points on the edge of the A4101, it is necessary to consider the contribution of ammonia to nitrogen deposition further through the AA. This will allow a habitat specific assessment of potential impacts associated with emissions.

Nitrogen Deposition

5.6.12 As noted in **Section 5.5**, nitrogen deposition rates are habitat specific as different habitats have different tolerances to different levels. There is one critical load range for the SAC of 10 kgN/ha/yr for 'permanent oligotrophic waters: soft-water lakes' which comprises the habitat type which supports the SAC's qualifying feature: GCNs.

5.6.13 The Air Quality Report (Appendix C) provides modelled results for nitrogen deposition within 200m of each road link (A4101 High Street and A461 Stourbridge Road) for the in-combination (with plans) scenario.

5.6.14 As set out in **Section 5.5**, CIEEM's step-wise approach[125] has been followed to assess impacts associated with nitrogen deposition at the SAC.

Step 1: Identifying the baseline ecological features and air quality levels

5.6.15 The baseline ecological features and current air quality levels at these features are presented in **Section 5.3**.

Step 2: Assessing confounding factors, background pollution trends and the sensitivity of the receptor

5.6.16 The air quality modelling indicates that both the future baseline and also the in-combination 'with plans' scenario will result in an exceedance of the critical level for nitrogen deposition of 10 kgN/ha/yr across the whole SAC.

5.6.17 APIS source attribution data for Fens Pools SAC, as shown in **Figure 5.4,** indicates that the majority of nitrogen deposition comes from livestock (24.7%) with 5.2% coming from fertilisers and 15.4% from road transport.

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

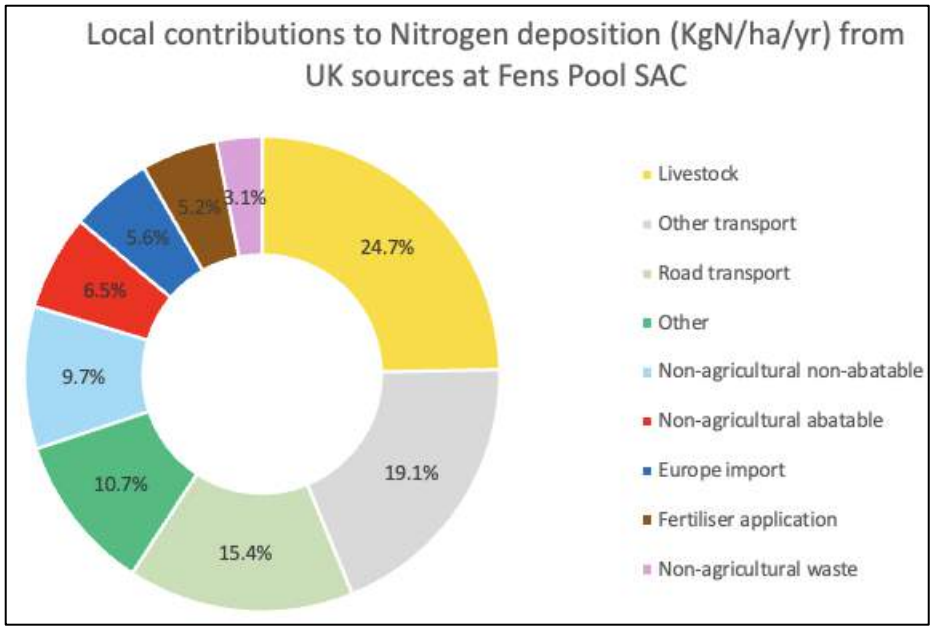

Figure 5.4: *Local contributions to Nitrogen deposition (KgN/ha/yr) from UK sources at Fens Pool SAC*[126]

5.6.18 A review of background air quality trends provided on APIS[127] indicates that there has been a decrease in the average level of nitrogen deposition at Fens Pools SAC between 2003 (15.67 kgN/ha/yr) and 2021 (10.83 kgN/ha/yr) of 4.84 kgN/ha/yr. This decreasing trend reflects the reduction in projected baseline levels at the SAC from 2022 to 2042 (**paragraph 5.3.4**).

Step 3: Is the critical load or level exceeded?

5.6.19 The air quality modelling data indicates that both the future baseline and also the in-combination 'with plans' scenario will result in an exceedance of the critical level for nitrogen deposition of 10 kgN/ha/yr across the whole SAC.

5.6.20 A maximum total concentration for the 'with plans' or 'in-combination' scenario is provided in the Air Quality Report in Table 5.4 (**Appendix C**) of 22.8 kgN/ha/yr. This includes background nitrogen deposition levels across the SAC. This represents a change from baseline levels of 0.8 kgN/ha/yr (which is predicted to be 22.0 kgN/ha/yr in 2042).

5.6.21 The highest levels of nitrogen deposition are located to the south of the SAC (outside the designated boundary) immediately adjacent to the B4179. The highest maximum nitrogen deposition level in the 'with plans' scenario within the SAC designation boundary is located on the SAC boundary within 20m of the A4101 High Street.

[126] APIS. Available at: https://www.apis.ac.uk/app [Accessed 17.06.24]

[127] APIS. Available at: https://www.apis.ac.uk/srcl [Accessed: 07/08/24].

5.6.22 As set out in **paragraph 3.4.7,** it is widely accepted that air quality impacts are greatest within 200m of a road source, decreasing with distance[128,129,130]. The air quality modelling results illustrate that receptors where nitrogen deposition levels are at their greatest, above 20 kgN/ha/yr, are focused in a small area within 15m of the A4101 High Street. These levels include a combination of both background concentrations along with contributions from a 'with plans' scenario. Nitrogen deposition concentrations decrease rapidly from this road link and are below 17 kgN/ha/yr within 70m of the A4101. Levels within 200m of the A416 Sherboune Road range between 15.8–16 kgN/ha/yr where the SAC designation begins (approximately 157m to the west of the A416). The lowest maximum nitrogen deposition concentration across the SAC is 15.4 kgN/ya/yr which remains over the critical load of 10 kgN/ha/yr. Maximum nitrogen deposition levels at the GCN breeding pond locations are shown to be around 15.7 kgN/ha/yr to 15.8 kgN/ha/yr.

5.6.23 The maximum total road contribution to annual nitrogen deposition across the modelled area is shown to be 8 kgN/ha/yr which includes areas close to the B4179 which are outside the SAC designated boundary. This level does not include background contributions to nitrogen deposition. The relative contribution from the road links modelled in a 'with plans' scenario decreases as distance from road source increases. Levels are greatest closest to the A4101 High Street, with a maximum level of 7 kgN/ha/yr, but reduce as distance from the A4101 increases. Levels reduce to under 2 kgN/ha/yr within less than 50m of the A4101. Maximum levels within 200m of the A416 Sherboune Road are below 0.8 kgN/ha/y (at 156m from the road link where the SAC designation boundary begins) and continue to decrease into the SAC. The contribution from road sources alone in a 'with plans' scenario within the southern area of the SAC are below 1 kgN/ha/yr.

5.6.24 This data suggests that background levels provide a large contribution to exceedances of the nitrogen critical load across the SAC.

[128] 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.

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

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

Step 4: Apply critical loads and critical levels with expert judgement

5.6.25 GCNs rely on water bodies for a number of important stages throughout their lifecycle[131]. Natural England notes that if ponds are subject to increased nutrients, vegetation could become more abundant, potentially resulting in a loss of open areas which is important for GCN courtship displays. If nutrient levels are increased further still, then submerged plants may also be completely lost as ponds become dominated by algae or in smaller waterbodies duckweed[132]. Natural England notes that "without water chemistry data it is impossible to tell if a water body is Nitrogen or Phosphorus limited. In many places neither nutrient is limiting as both nutrients are at elevated levels, regardless of the ratio between the two. Previously in freshwater science there was an assumption that most standing fresh waters were phosphorus limited, but this is no longer thought to be the case and the impacts of elevated levels of nitrogen, regardless of the phosphorus concentrations, has been more widely acknowledged, as has the number of cases where water bodies are nitrogen limited".

5.6.26 The conservation advice for the SAC is to 'maintain air pollutants at or below the relevant critical load (**paragraph 5.3.1**). The critical load range for nitrogen deposition taken from APIS in the Air Quality Report is for 'permanent oligotrophic waters: softwater lakes' (10 kg/N/ha/yr, see **Table 5.2**). As noted in **paragraph 5.3.4**, background nitrogen deposition rates in both the baseline and future years are projected to exceed the critical load across the SAC.

5.6.27 The critical load of 10 kg/N/ha/yr applies if the qualifying feature (GCN) is associated with soft-water oligotrophic lakes. APIS notes that this critical load should only be applied to oligotrophic waters with low alkalinity with no significant agricultural or other human inputs. The Conservation Advice for the SAC indicates that the site is vulnerable to runoff that drains into it from the surrounding residential areas and industrial estate. There are known discharges from adjacent industrial areas into GCN breeding ponds and Natural England's Conservation Advice notes that many of the ponds are naturally eutrophic and base-rich from the local clay geology. This attribute concerns point source, anthropogenic pollution resulting from discharges onto the site or dumping adjacent to ponds[133]. It is unlikely that soft water oligotrophic lakes are representative of the Fens Pools SAC, as these ponds are typically representative of eutrophic standing waterbodies. As with the Cannock Extension Canal SAC, data provided on APIS indicates that deposition of nitrogen from the atmosphere is unlikely to be the largest source of nutrients to eutrophic standing waters and, therefore, in general, nitrogen deposition is unlikely to be harmful to eutrophic standing waters, even when close to sources[134]. Data on APIS also notes that phosphorous is likely to be more important than nitrogen in terms of algal growth and nutrient enrichment in standing waterbodies.

[131] Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001) Great Crested Newt Conservation Handbook, Froglife, Halesworth.

[132] Personal Communication. Natural England. 1st May 2020.

[133] Natural England (2017). European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Fens Pools Special Area of Conservation (SAC) Site Code: UK0030150.

[134] APIS Nitrogen Deposition: Standing Open Water and Canals. Available at: https://www.apis.ac.uk/node/983 [Date Accessed: 08/08/24].

5.6.28 As noted in **paragraph 5.6.7** and **paragraph 5.6.8**, the GCN breeding ponds at Fens Pools SAC are in a good condition and issues associated with anti-social behaviour are the key conservational concern at the SAC. In addition, as noted in **paragraph 5.6.9**, Dudley Council is progressing enhancement work to enhance and extent GCN habitat within the wider landscape which will have a positive impact upon populations.

5.6.29 Given the small in-combination contribution of nitrogen deposition levels (0.8 kgN/ha/yr within SAC boundary) when compared to background levels, the reduction in 'with plans' contributions across the SAC as distance from road link increases, the high contribution of existing background levels, decreasing background trends which show an improvement in deposition levels, the good status of GCN populations at the SAC and when taking into consideration the policy provisions set out above to address the SLP contribution to any in-combination impact, it can be concluded that there will be no in-combination AIOSI at the SAC in relation to reduced air quality caused by the SLP in combination. The SAC targets in respect of air quality to *"restore concentrations and deposition of air pollutants to at or below the site-relevant Critical Load or Level values given for this feature of the site on the APIS"* will not be compromised as a result of the SLP alone or when considered in-combination.

6 Water Quality and Water Quantity Appropriate Assessment

6.1 Introduction

6.1.1 The HRA screening process in **Chapter 4** concluded that a number of SLP policies and all allocations have the potential to result in likely significant hydrological impacts at the following European sites:

- Cannock Extension Canal SAC
- Ensor's Pool SAC
- Fens Pools SAC
- Humber Estuary Ramsar
- Humber Estuary SAC
- River Mease SAC
- Severn Estuary Ramsar
- Severn Estuary SAC

6.1.2 This chapter provides an AA which assesses more precisely the ecological impacts associated with a deterioration in water quality and changes to water quantity due to SLP growth at each European site in view of its qualifying features and conservation objectives.

6.1.3 The following policies were screened into the HRA process for consideration in an AA due to water LSEs (**Appendix D**):

- Policy SDS1 – Spatial Strategy for Sandwell
- Policy SDS3 – Regeneration in Sandwell
- Policy SDS4 – Towns and Local Areas
- Policy SHO1 – Delivering Sustainable Housing Growth
- Policy SHO2 – Windfall Developments
- Policy SHO9 – Accommodations for Gypsies and Travellers and Travelling Showpeople
- Policy SEC1 – Providing for Economic Job Growth and Job Creation
- Policy SWB2 – Development in West Bromwich
- Policy SWA3 – Preferred Areas for New Waste Facilities

6.2 Water Quality Appropriate Assessment

Introduction

6.2.1 As noted in **Section 3.5**, development 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 WwTWs. 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 European sites and their qualifying features.

6.2.2 Together the Government, the EA and the water companies are responsible for preparing plans and strategies and implementing a regulatory framework to ensure there is enough water for the future needs of both people and the environment and manage the treatment of wastewater. This is undertaken through a catchment-based approach and provides protection for European sites and ensures compliance with the WFD[135].

6.2.3 The 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 a good ecological status or potential, good chemical status or good groundwater status every single element assessed must be at a good status or better. If one element is below its threshold for good status, then the whole water body's status is classed below good. Surface water bodies can be classed as high, good, moderate, poor or bad status.

6.2.4 The scoping assessment (presented in **Chapter 3**) identified water quality LSEs at the following six European sites:

- Cannock Extension Canal SAC
- Fens Pools SAC
- Humber Estuary SAC
- Humber Estuary Ramsar
- Severn Estuary SAC
- Severn Estuary Ramsar

[135] https://environment.ec.europa.eu/topics/water/water-framework-directive_en.

Mitigation

6.2.5 Policy SNE6 (Canals) of the SLP (**Box 2**) requires new development to protect the water quality of the canal network and applies to Cannock Extension Canal.

Box 2: Extract from Policy SNE6 – Canals

All development proposals likely to affect the canal network must:

1. Protect and enhance water quality in the canal and protect water resource availability both in the canal and the wider environment.
2. Consider the use of canals for surface water management purposes, if SuDS and other mitigation measures are built into a scheme in the vicinity.

6.2.6 Policies set out in the SLP (Policy SCC6 – Sustainable Drainage) will go towards the protection of water quality. In addition, Policy SWA4 (Locational Considerations for New Waste Facilities) sets out the requirements of waste management proposals to ensure no harm to water quality. Policy SDS2 (Increasing efficiency and resilience) outlines that development should be designed to protect water quality. Policy SDS8 (Green and Blue Infrastructure in Sandwell) aims to improve water quality through green infrastructure and blue infrastructure. Furthermore, Policy SWH1 (Health Impact Assessments) outlines the consideration of water contamination in its assessments for all proposed developments. Policy SCC5 (Flood Risk) outlines the use of SuDs as an opportunity to replicate natural drainage through new developments, helping to improve water quality.

6.2.7 Policy SNE1 (Nature Conservation) will apply to all allocations and any other windfall developments which come forward through the SLP. This policy sets out the requirements for internationally designated sites in which development will not be permitted that would have an adverse impact on the integrity of such sites either alone or in-combination.

Cannock Extension Canal SAC

6.2.8 As outlined in **Section 5.2**, the Cannock Extension Canal SAC, which is located approximately 8km to the north of the Plan area, is part of the extensive inland water system through the Black Country and comprises an extension off the Wyrley and Essington Canal. The Cannock Extension Canal SAC is fed by the Chasewater Reservoir, which lies approximately 8km to the north of the SAC[136]. The canal is hydrologically linked to the Wyrley and Essington Canal via the Birmingham Canal, Walsall Canal and Tame Valley Canal which extend into the Plan area. The Wyrley and Essington Canal is a contour canal which means that it follows the contours of the land with no intervening locks. As set out in **Appendix B,** the SAC is designated for Floating Water-plantain. Natural England's SIP[137] for the SAC lists water pollution as a pressure at the SAC and notes that Floating Water-plantain is sensitive to changes in water quality.

[136] Natural England (2018) Cannock Extension Canal SAC Conservation Objectives Supplementary Advice. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012672.pdf [Accessed 02/09/24].

[137] Natural England (2014) Site Improvement Plan: Cannock Extension Canal. Available at: https://publications.naturalengland.org.uk/file/6749431462363136 [Accessed 13/08/24].

6.2.9 As set out in **paragraph 5.5.22**, canals are artificial waterbodies and comprise lentic (slow moving) systems. Their connectivity with the surrounding landscape and drainage systems governs nutrient levels. Sources of water pollution may include agricultural run-off, discharge from wastewater treatment works, industry and surface water run-off.

6.2.10 Whilst water quality in the Chasewater Reservoir and its surrounding catchment is good, historically, high sediment loads into the canal have resulted in poor water quality[138]. Although the origin of the high sediment loads has been resolved, there remains a low sediment load in the inflow water in times of heavy rainfall events[139]. Consultation with the CRT, who are landowners at the Cannock Extension Canal SAC, indicates that numerous discharges feed into the Wyrley and Essington Canal, which could potentially impact water quality at the SAC.

6.2.11 In addition, and as noted in **paragraph 5.5.21,** the Conservation Advice for the SAC indicates that there are a number of drains which feed into the Canal from adjacent land, including one from Wyrley Common, which contains colliery shale waste in the water. To the north of the Canal, land uses include a restored (and sealed) refuse tip, boatyard and moorings on the offside and woodland, fishing pool and arable agriculture on the tow-path side up to the A5 trunk road[140]. Natural England identifies water pollution from agricultural sources as an issue at the SAC[141].

6.2.12 Research undertaken by Natural England indicates that Floating Water-plantain has a wide range of chemical tolerances and has been recorded in a range of waters from oligotrophic, to meso-oligotrophic and meso-eutrophic waters[142]. This body of work indicates that competition and succession are the major influences limiting the distribution and abundance of the Floating Water-plantain. Factors suppressing succession are artificial and include disturbance of sediment by light boat traffic. The use of the Cannock Extension Canal SAC by boat traffic and management through dredging may therefore be responsible for the exclusion of more competitive species. Nutrient inputs from surface water run-off however have the potential to increase the dominance of nutrient loving species and lead to succession.

[138] Natural England (2018) Cannock Extension Canal SAC Conservation Objectives Supplementary Advice. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012672.pdf [Accessed 02/09/24].

[139] Natural England (2014) Site Improvement Plan: Cannock Extension Canal. Available at: https://publications.naturalengland.org.uk/file/6749431462363136 [Accessed 13/08/24].

[140] Natural England (2018). European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Cannock Extension Canal Special Area of Conservation (SAC) Site Code: UK0012672.

[141] Natural England (2015) Designated Sites View: Cannock Extension Canal SSSI – Pressures. Available at: https://designatedsites.naturalengland.org.uk/SitePressures.aspx?SiteGuid=eeb695e3-5a50-e411-a6ba-000d3a2004ef&SiteCode=S1006558&SiteName=Cannock%20Extension%20Canal%20SSSI [Accessed 13/08/24].

[142] Lansdown RV & Wade PM (2003). Ecology of the Floating Water-plantain, *Luronium natans*. Conserving Natura 2000 Rivers Ecology Series No. 9. English Nature, Peterborough. Available at: https://publications.naturalengland.org.uk/file/111042 [Accessed: 26/06/24].

6.2.13 Natural England's Supplementary Advice for the SAC indicates that the target is to 'restore' water quality to standards which will provide the necessary conditions to support Floating Water-plantain which includes total concentrations of phosphorus of less than 20μg/l. Available water quality monitoring data indicates that this objective is not being achieved[143].

6.2.14 The outputs of the WCS and water quality modelling have been drawn upon to inform this AA[144]. The WCS was undertaken through consultation with the statutory water suppliers, the EA and neighbouring LPAs.

6.2.15 Increased growth can lead to a deterioration of water quality at water sensitive European sites through either polluted surface water run off or through increased discharges from WwTWs. Under the WFD, a watercourse is not allowed to deteriorate from its current WFD classification (either as an overall watercourse or for individual elements assessed).

6.2.16 Effluent discharge to the water environment is controlled through an environmental permitting system which is administered by the EA. The level of discharge is determined by the EA through the issue of Environmental Permits (EPs). These ensure the receiving watercourse is not prevented from meeting its environmental objectives under the WFD, with specific regard to the physico-chemical status element of the WFD classification.

6.2.17 To predict water quality at European sites, detailed water quality modelling was undertaken as part of the WCS[145] using the EA's SIMCAT model[146]. This was applied to watercourses adjacent to, or as close as possible to, European sites with hydrological connectivity.

6.2.18 Using SLP information, two scenarios were modelled. These included the impact of the SLP growth alone scenario and the impact of the SLP in combination with neighbouring local authority forecast growth scenario.

6.2.19 The modelling looked at three physico-chemical quality elements in the adjacent water body, including Biochemical Oxygen Demand (BOD), Ammonia, and Phosphate.

6.2.20 If the model indicated a change in water quality of 10% or more, or a decrease in the WFD class, the impact on water quality was deemed to be significant.

6.2.21 The modelling results indicated that there will be no significant deterioration in water quality downstream of any European site modelled. Whilst canals are not specifically modelled in the WCS, the results indicate that rivers closest to the Cannock Extension Canal SAC (and Fens Pools SAC) are not predicted to deteriorate significantly.

[143] Natural England (2018). European Site Conservation Objectives: Supplementary advice on conserving and restoring site features Cannock Extension Canal Special Area of Conservation (SAC) Site Code: UK0012672.

[144] JBA Consulting (2024) Sandwell Local Plan Water Cycle Study – Stage 2.

[145] JBA Consulting (2024) Sandwell Local Plan Water Cycle Study – Stage 2.

[146] SIMCAT model has been developed by the Environment Agency. Further details on modelling are provided in the JBA Phase 2 WCS.

6.2.22 Natural England note that the principal threat in Britain to Floating water-plantain is now from the restoration of waterways and the expansion of recreational boating activities[147].

6.2.23 Polices set out in **paragraphs 6.2.5** to **6.2.8** will ensure water discharges from new development set out in the SLP are managed to ensure no deterioration in water quality from surface water run-off. In addition, water quality modelling undertaken as part of the WCS has indicated that there will be no significant deterioration downstream of any European site.

6.2.24 Taking into consideration the protection that SLP policies set out in **Section 6.2** give to water quality, outputs of the water quality modelling, and the location of allocations in relation to the SAC, it can be concluded that there will be no AIOSI as a result of the SLP either alone or in-combination on the Cannock Extension Canal SAC.

Fens Pools SAC

6.2.25 Fens Pools SAC is located approximately 3.1km to the west of the Plan area, comprises of a series of small pools as well as swamp, fen and inundation communities to unimproved neutral and acidic grassland and scrub[148]. As set out at **Appendix B**, the qualifying species of the SAC is GCN.

6.2.26 Water is supplied to Fens Pools SAC from rainfall, run-off from neighbouring residential areas and inputs from springs to the northeastern corner of the site[149]. A review of topographical mapping data indicates that ground levels are relatively similar at both Fens Pools SAC and the SLP boundary with raised topography between the SAC and Plan area at Sandwell's Local Nature Reserve (Netherton Hill, Lady Wood and Birch Wood).

6.2.27 The closest watercourse to the SAC is the Stourbridge Canal which is located approximately 150m to its south. The main ponds at Fens Pools SAC (Fens Pool, Middle Pool, Grove Pool and Wide Water) connect to the Stourbridge Canal.

6.2.28 As set out in **paragraph 5.6.6**, consultation with the Dudley Council Countryside Management Team indicates that the main ponds (Fens Pool, Middle Pool, Grove Pool and Wide Waters) do not support GCN, due in part to the presence of large populations of carp. Recent GCN surveys undertaken in 2024 which were shared with Dudley Council Countryside Management Team, indicate that the smaller GCN breeding ponds are in a good condition with newts recorded at each.

[147] Lansdown RV & Wade PM (2003). Ecology of the Floating Water-plantain, *Luronium natans*. Conserving Natura 2000 Rivers Ecology Series No. 9. English Nature, Peterborough. Available at: https://publications.naturalengland.org.uk/file/111042 [Accessed: 26/06/24].

[148] Natural England (2014) European Site Conservation Objectives for Fens Pools SAC. Available at: https://publications.naturalengland.org.uk/publication/5327609814581248 [Accessed 10.06.24]

[149] Correspondence with Fens Pools SAC warden 19th June 2024.

6.2.29 As set out in **Section 5.6**, Natural England's SIP[150] and consultation with Dudley Council Countryside Management Team indicates that anti-social behaviours, such as use of off-road vehicles, unlicensed grazing, use of larger ponds by anglers, campfires, night fishing, the presence of non-native alpine newts and fragmentation of GCN habitat are a particular risk to GCN populations at the site. **Section 5.6** also highlights the work Dudley Council is currently undertaking on the creation of a GCN corridor to connect the landscape and provide connectivity between Fens Pools SAC and other GCN populations.

6.2.30 Polices set out in **paragraphs 6.2.5** to **6.2.8** will ensure water discharges from new development set out in the SLP are managed to ensure no deterioration in water quality from surface water run-off. In addition, water quality modelling undertaken as part of the WCS has indicated that there will be no significant deterioration downstream of any European site.

6.2.31 Taking into consideration the protection that SLP policies give to water quality, the outputs of water quality modelling, the location of allocations in relation to the SAC, local topography and hydrological links and the current status of GNC populations in smaller ponds at the SAC, it can be concluded that there will be no AIOSI as a result of the SLP either alone or in-combination on the Fens Pools SAC.

Humber Estuary SAC and Ramsar

6.2.32 The Humber Estuary is the UK's second-largest coastal plan estuary (370 km^2) consisting of extensive wetland and coastal habitats and nutrient-rich sediment that supports a wide variety of wintering, passage and breeding birds (especially geese, ducks and waders)[151]. As noted in **Section 3.5**, migratory species of fish for which the Humber Estuary SAC and Ramsar sites have been designated have the potential to use watercourses which are hydrologically linked to the Plan area for parts of their lifecycle, notably spawning. A change in the quality of water in these upstream spawning locations has the potential to adversely impact these qualifying features.

6.2.33 Polices set out in **paragraphs 6.2.5** to **6.2.8** will ensure water discharges from new development set out in the SLP are managed to ensure no deterioration in water quality from surface water run-off. In addition, water quality modelling undertaken as part of the WCS has indicated that there will be no significant deterioration downstream of any European site.

6.2.34 Taking into consideration the protection that SLP policies give to water quality and the outputs of the water quality modelling, it can be concluded that there will be no AIOSI as a result of the SLP either alone or in-combination on the Humber Estuary SAC or Ramsar.

[150] Natural England (2014) Site Improvement Plan: Fens Pool. Available at: https://publications.naturalengland.org.uk/publication/6307825315741696 [Accessed 19/06/24]

[151] Yorkshire Marine Nature Partnership. Nd. Humber Estuary SPA. Available at: https://yorkshiremarinenaturepartnership.org.uk/manage/marine-protected-areas/humber-estuary-spa/ [Accessed 29.05.24]

Severn Estuary SAC and Ramsar

6.2.35 As set out in **Section 3.5**, the Severn Estuary SAC, SPA and Ramsar is located between Wales and England with extensive intertidal mudflats and sandflats, rocky platforms and islands[152]. The Severn Estuary SAC hosts estuaries, mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows, sandbanks covered by sea water, and reefs. The site also supports Sea Lamprey (*Petromyzon marinus*), River Lamprey (*Lampetra fluviatilis*) and Twaite Shad (Alosa fallax).

6.2.36 Migratory species of fish for which the Severn and Humber Estuary SAC and Ramsar sites have been designated have the potential to use watercourses which are hydrologically linked to the Plan area for parts of their lifecycle, notably spawning. A change in the quality of water in these upstream spawning locations has the potential to adversely impact these qualifying features.

6.2.37 Polices set out in **paragraphs 6.2.5** to **6.2.8** will ensure water discharges from new development set out in the SLP are managed to ensure no deterioration in water quality from surface water run-off. In addition, water quality modelling undertaken as part of the WCS has indicated that there will be no significant deterioration downstream of any European site.

6.2.38 Taking into consideration the protection that SLP policies give to water quality and the outputs of the water quality modelling it can be concluded that there will be no AIOSI as a result of the SLP either alone or in-combination on the Severn Estuary SAC or Ramsar.

6.3 Water Quantity Appropriate Assessment

Introduction

6.3.1 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 a change in 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 employment development supported by the SLP) also has the potential to affect water balances at hydrologically sensitive European sites which are connected to the Plan area. European sites which are located within a WRZ area within which the SLP is also located have been screened in for further consideration in this AA (see **Table 3.4** for scoping outputs).

6.3.2 The following European sites have the potential to be impacted by water quantity effects as a result of the SLP:

- Cannock Extension Canal SAC
- Ensor's Pools SAC
- Fens Pools SAC

152 UK Government. Nd. Severn Estuary SAC and SPA. Available at: https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://assets.publishing.service.gov.uk/media/5dc1525ded915d1cfe538e44/Severn_Estuary_SAC_and_SPA_Factsheet.pdf&ved=2ahUKEwju_b2NubKGAxVJQUEAHS8sB0YQFnoECBIQAQ&usg=AOvVaw1C6EHSU86RzAz-fz2HUmWY [Accessed 29.05.24]

- River Mease SAC

Mitigation and Appropriate Assessment

6.3.3 Together the Government, the EA and the water companies are responsible for preparing plans and strategies and implementing a regulatory framework to ensure there is enough water for the future needs of both people and the environment. This is undertaken through a catchment-based approach and provides protection for European sties and ensures compliance with the WFD[153].

6.3.4 As set out in **Section 3.5**, STW and SSW supply water to Sandwell. The STW WRMP[154] and SSW WRMP[155] forecast a deficit that is likely to develop between supply and demand for water over time unless action is taken. The WRMPs outline a number of demand management measures that need to be taken to ensure continued sustainable sources of water supply. The SLP WCS[156] indicates that although SSW and STW have not relied on new homes being more water-efficient than existing metered homes, the opportunity through the planning system, to ensure that new homes do meet the higher standard of domestic water usage would be in line with general principals of sustainable development, and reducing energy consumed in the treatment and supply of water. This is set out in SLP policy wording (see below Policy SDM2). Growth during the Plan period is expected to be in the region of 16% between 2022 and 2041. This is higher than the percentage growth forecast in the South Staffs, Strategic grid and Wolverhampton WRZs. In those WRZs where the water company forecast is lower than the SLP, assurance will be sought from the company that the Council's growth forecast can be accommodated. This is based on data published as part of the draft WRMP24, updated in 2023. The Council has been in ongoing liaison with the water companies throughout the plan making process to ensure that appropriate and sufficient supply can be made for infrastructure, and that the emerging growth proposals can be supported. This forms part of the Duty to Cooperate on strategic cross border issues and will inform the Infrastructure Delivery Plan which forms a critical component of the SLP evidence base.

[153] European Commission. Water Framework Directive. Available at: https://environment.ec.europa.eu/topics/water/water-framework-directive_en [Accessed 11.06.24].

[154] Severn Trent Water (2019) Waste Resources Management Plan 2019. Available at: https://SLP.stwater.co.uk/content/dam/stw-plc/our-plans/severn-trent-water-resource-management-plan.pdf [Accessed: 04/06/24].

[155] South Staffs Water. Water Resources Management Plan 2019. Available at: https://www.south-staffs-water.co.uk/media/2676/final-wrmp-2019-south-staffs-water.pdf [Accessed: 04/06/24].

[156] JBA Consulting (2024) Sandwell Local Plan Water Cycle Study - Stage 2

6.3.5 The Water Industry Act 1991, as amended by the Water Act 2003, made it a statutory requirement for water companies to produce and maintain a Drought Plan every 5 years. A Drought Plan sets out the framework for a water company to follow in times of drought and dry weather to maintain water supply and links strategically with the WRMPs. The STW Drought Plan[157] and the SSW Drought Plan[158] tests a number of drought / dry weather scenarios under different climatic conditions to show that supply can be maintained.

6.3.6 As set out in **Section 3.5**, abstractions for water supply are managed by the EA through licences issued in line with their CAMS process.

6.3.7 In addition, the SLP sets out protective policies against water quantity impacts. Policy SDM2 (Development and Design Standards) outlines the requirement of all new residential developments to meet the identified water efficiency standards. Policy SNE6 (Canals) (see **Box 2**) protects water resource availability both in the canal and in the wider environment. Policy SCC5 (Flood Risk) requires all new development to be accompanied by a surface water drainage strategy. Surface water drainage strategies are required for all major developments, as outlined in Policy SCC6 (Sustainable drainage). Policy SWA4 (Locational Considerations for New Waste Facilities) considers water resources when assessing the potential impacts of waste management proposals.

6.3.8 Water supply issues will be addressed through the higher-level water planning framework and licencing process (RBMP, WRMP, Drought Plans and CAMS). SLP policies to improve water efficiency (Policy SDM2) will also ensure water supplies at European sites can be met to meet the requirements of European sites. It can therefore be concluded that there will be no adverse impacts on the integrity of any European site, either alone or in-combination, due to a change in water quantity as a result of the SLP.

[157] Severn Trent Water (2022) Drought Plan 2022-2027. Available at: https://www.severntrent.com/content/dam/stw-plc/water-resource-zones/drought-plan-2022-2027.pdf [Accessed 03.06.24].

[158] South Staffs Water (2022) South Staffs Water drought plan. Available at: https://www.south-staffs-water.co.uk/media/4050/ssw-final-drought-plan-2022.pdf [Accessed 12/08/24].

7 Conclusions

7.1 Summary

7.1.1 The SLP is not directly connected with or necessary for the management of any European site. A screening assessment was therefore undertaken which identified a number of LSEs associated with the SLP. Taking no account of mitigation measures, the SLP has the potential to affect the following European sites:

- Cannock Extension Canal SAC
- Ensor's Pools SAC
- Fens Pool SAC
- Humber Estuary SAC
- Humber Estuary Ramsar
- River Mease SAC
- Severn Estuary SAC
- Severn Estuary Ramsar

7.1.2 The HRA therefore progressed to the next stage of the HRA process: Appropriate Assessment. The following matters were explored in more detail:

- Impacts on designated features affected by a possible deterioration in air quality;
- Impacts on water quality and quantity associated with increased levels of built development; and,
- Consideration of impacts at associated functionally linked land / watercourses.

7.1.3 A range of potential threats and pressures that might be exacerbated by the SLP were identified through the assessment process. The Precautionary Principle has been used in circumstances where likely effects were considered to be uncertain. The protective policies set out in the SLP, alongside existing protection measures in existing high level strategic and planning policy frameworks, have been factored into the assessment process.

7.1.4 Taking into consideration these factors, it is concluded that the SLP would have no adverse impact on site integrity at any European site, either alone or in-combination.

7.2 Next steps

7.2.1 The purpose of this report is to inform the HRA of the SLP using best available information.

7.2.2 Sandwell Metropolitan Borough Council, as the Competent Authority, has responsibility to make the Integrity Test, which can be undertaken in light of the conclusions set out in this report.

7.2.3 This report will be submitted to Natural England, the statutory nature conservation body, for formal consultation. The Council must 'have regard' to Natural England's representations under the provisions of the Habitats Regulations prior to making a final decision as to whether they will 'adopt' the conclusions set out within this report as their own.

Appendix A: In-Combination Assessment

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
Birmingham City Council	The Birmingham Development Plan (BDP)[1] 2031 was adopted by Birmingham City Council on the 10th January 2017. The Council are currently working on a new Local Plan, the Birmingham Local Plan[2]. Consultation on the Issues and Options stage concluded in December 2022. The Plan is currently at the Preferred Options stage. The Plan is scheduled to be adopted late 2026.	Approximately 51,100 dwellings, two regional investment sites of 20ha and 25ha and a 71ha employment site for the plan period to 2031. The new Local Plan will guide decisions on development up to 2042. Once the Birmingham Local Plan has been adopted, it will replace the following plans: • Birmingham Development Plan (2017) • Aston, Newton and Lozells Area Action Plan (2012) • Longbridge Area Action Plan (2009)	The BDP was subject to an HRA which concluded there were no likely adverse impacts on the integrity on European sites. However, the Council should continue to regard the need to protect these sites when considering development proposals. No HRA for the Birmingham Local Plan was available online at the time of writing.	The combined impact of neighbouring authority growth, in-combination with the SLP, on air quality and hydrology will be considered further in the HRA process.
Bromsgrove District Council	The Bromsgrove District Plan 2011-2030[3] was adopted on the 25th January 2017.	Approximately 7,000 dwellings over the period 2011-2030 alongside a minimum of 28ha employment growth.	At the time of writing an HRA has not been published to support the plan review.	The combined impact of neighbouring authority growth, in-combination with the SLP, on air quality and hydrology will

[1] Birmingham City Council (2017) Birmingham Development Plan: Planning for sustainable growth. Available at: https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development_plan_2031?_gl=1*ns49pa*_up*MQ..*_ga*MTY3NjcxMTI3Ny4xNzI0MTQyMzU3*_ga_98DDPH489B*MTcyNDE0MjM1Ni4xLjAuMTcyNDE0MjM1Ni4wLjAuMA.. [Accessed 20/08/24].

[2] Birmingham City Council (2024) Birmingham Local Plan – Preferred Options Consultation. Available at: https://www.birminghambeheard.org.uk/bcc/birmingham-local-plan/ [Accessed 20/08/24].

[3] Bromsgrove District Council (2017) Bromsgrove District Plan 2011-2030. Available at: https://www.bromsgrove.gov.uk/media/samhiyxl/bromsgrove-district-plan-2011-2030.pdf [Accessed 20/08/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
	The Bromsgrove District Plan Review[4] has begun. The preferred options consultation took place in 2018 with a district plan review and further update in 2019.			be considered further in the HRA process.
Dudley Metropolitan Borough Council	The Council is in the process of preparing a new local plan for the Borough: the Dudley Local Plan 2041[5]. This follows from the Black Country Plan which ceased in October 2022. The Council consulted on the Draft Plan[67] at Regulation 18 and Regulation 19 is currently in preparation. The Plan is expected to be adopted in 2026.	The draft Plan sets out the council's vision for the borough, priorities for the plan, preferred policies and proposed housing and employment sites. It aims to deliver at least 10,876 net new homes and at least 25ha of employment land.	An HRA[8] was conducted at Regulation 18, concluding that a full AA is required at Regulation 19. No conclusions were drawn at this stage in terms of adverse impacts on the integrity of any European site.	This plan has the potential to act in-combination with the SLP through increased residential and employment development which may trigger in-combination air quality and hydrology LSEs

[4] Bromsgrove District Council. Bromsgrove District Plan Review. Available at: https://www.bromsgrove.gov.uk/council/policy/planning-policies-and-other-planning-information/bromsgrove-district-plan-review/ [Accessed 20/08/24].

[5] Dudley Metropolitan Borough Council. Dudley Local Plan 2041. Available at: https://www.dudley.gov.uk/residents/planning/planning-policy/dudley-local-plan/ [Accessed 20/08/24].

[6] Dudley Metropolitan Borough Council (2023) Draft Dudley Local Plan Part One Spatial Strategy and Policies Regulation 18 Consultation document. Available at: https://www.dudley.gov.uk/media/gmjj2yer/draft-dudley-local-plan-part-one-october-2023-consultation.pdf [Accessed 20/08/24].

[7] Dudley Metropolitan Borough Council (2023) Draft Dudley Local Plan Part Two Centres and Site Allocations Regulation 18 Consultation document. Available at: https://www.dudley.gov.uk/media/m2maposr/draft-dudley-local-plan-part-two-october-2023-consultation.pdf [Accessed 20/08/24].

[8] Lepus Consulting (October 2023) Draft Dudley Local Plan 2031 Regulation 19: Habitat Regulations Assessment.

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
Lichfield District Council	The Council is currently preparing a new Local Plan[9] following the previous plan, Local Plan, being withdrawn from examination in 2023. A call for sites was undertaken between January and March 2024. The previous Local Plan Strategy[10] 2008-2029 was adopted on the 17th February 2015.	n/a	No HRA was available online at the time of writing.	This plan has the potential to act in-combination with the SLP through increased residential and employment development which may trigger in-combination air quality and hydrology LSEs
North Warwickshire Borough Council	The Local Plan for North Warwickshire[11] was adopted on the 29th September 2021.	The local plan sets out requirement for 30-50 residential units per hectare, depending on the density (more in and around the town centre). A windfall allowance of 660 dwelling units over the Plan period is also provided. The plan includes provisions for economic regeneration, employment areas and rural employment.	The HRA concluded that no adverse effects on integrity will occur at any European sites as a result of the Local Plan, either alone or in-combination.	This plan has the potential to act in-combination with the SLP through increased residential and employment development which may trigger in-combination air quality and hydrology LSEs.

[9] Lichfield District Council. New Local Plan. Available at: https://www.lichfielddc.gov.uk/planning-policy/local-plan-review [Accessed 20/08/24].

[10] Lichfield District Council. Adopted Local Plan. Available at: https://www.lichfielddc.gov.uk/planning-policy/adopted-local-plan [Accessed 20/08/24].

[11] North Warwickshire Borough Council (2021) North Warwickshire Local Plan 2021. Available at: https://www.northwarks.gov.uk/downloads/file/265/local-plan-adopted-2021- [Accessed 20/08/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
Solihull Metropolitan Borough Council	The Council submitted the Solihull Local Plan Review[12] to the Planning Inspectorate on 13th May 2021 for independent examination.	The Local Plan sets out a requirement for at least 5,270 net additional homes, to ensure sufficient housing land supply to deliver 15,017 additional homes in the period 2020-2036. Evidence in the Housing and Economic Development Needs Assessment 2020 indicates that there is a need for around 147,000 sq. m of employment floorspace to meet local needs for the Plan period to 2036.	An HRA[13] was conducted at Stage 1: screening in 2020 following an update in site allocations and policies of the Submission Draft. It concluded no adverse effects on the integrity of European sites alone or in-combination. An appropriate assessment was therefore concluded in the HRA to not be required.	This plan has the potential to act in-combination with the SLP through increased residential and employment development which may trigger in-combination air quality and hydrology LSEs.
South Staffordshire District Council	The Regulation 19 Publication Local Plan Review[14] Consultation closed on the 31st May 2024. The Plan is set to be submitted by June 2025.	The new Local Plan will deliver approx. 1,400 affordable homes between the period 2023-2041. The Local Plan (pre-submission) sets out requirements for a minimum annual average of 227 dwellings per annum from 2023/4 to the end of the plan period (2041). This equates to 4,086 new homes. Employment land of 112.2ha is available for strategic cross boundary unmet needs from the Black Country.	An HRA[15] was conducted for the South Staffordshire Local Plan Review at the Publication Stage. At the AA stage, adverse effects on the integrity from recreation and water impacts were ruled out, both alone and in-combination for all European sites. It was not however possible to rule out adverse effects on integrity relating to air quality as a result of increased traffic. Traffic data and possibly air quality modelling are currently being undertaken.	The combined impact of neighbouring authority growth, in-combination with the SLP, on air quality and hydrology will be considered further in the HRA process.

[12] Solihull Metropolitan Borough Council. Solihull Local Plan Review. Available at: https://www.solihull.gov.uk/Planning-and-building-control/Local-Plan-Review [Accessed 20/08/24].

[13] Solihull Metropolitan Borough Council (2020) Solihull Local Plan Review: Updated Habitat Regulations Assessment Stage 1: Screening. Available at: https://www.solihull.gov.uk/sites/default/files/2020-12/HRA_Screening_Report_Sep_2020.pdf [Accessed: 07/06/24].

[14] South Staffordshire Council (2024) Local Plan Review. Available at: https://www.sstaffs.gov.uk/planning/planning-policy/local-plan-review [Accessed 20/08/24].

[15] Liley, D.; Fleming, B. and Rush, E. (2024) Habitats Regulations Assessment (HRA) of the South Staffordshire Local Plan Review 2023-2041 (Publication Plan, Regulation 29). Available at: https://www.sstaffs.gov.uk/sites/default/files/2024-04/05_s_staffs_hra_280324_final_report.pdf [Accessed: 07/06/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
City of Wolverhampton Council	The Council is in the process of preparing a new local plan, after the production of joint Black Country Plan ceased in October 2022. The Council undertook the Wolverhampton Local Plan[16] Regulation 18 Issues & Options Consultation, ending in April 2024. The Plan is scheduled to be adopted in mid 2026.	The plan will include detailed policies and provisions for housing and employment allocations. The Preferred Option will deliver 10,300 new homes and 63ha of industrial employment land by 2042.	An HRA[17] was conducted for the Issues and Preferred Options stage in January 2024. It concluded that European sites had the potential to be impacted by air quality, water quality and quantity, and recreational LSEs.	This plan has the potential to act in-combination with the SLP through increased residential and employment development which may trigger in-combination air quality and hydrology LSEs
Walsall Council	The Council is in the process of preparing a new Local Plan[18], after the production of joint Black Country Plan ceased in October 2022. As per the Local development Scheme, the council is working on the Issues and Options document under Regulation 18.	The plan will include detailed policies and provisions for housing and employment allocations.	No HRA was available at the time of writing.	This plan has the potential to act in-combination with the SLP through increased residential and employment development which may trigger in-combination air quality and hydrology LSEs
The West Midlands Local	Transport for West Midlands (TfWM) is currently updating the Local Transport Plan for the West Midlands Combined Authority (7	The Plan sets out policies to promote safe, integrated, efficient and economic transport to, from and within the area. The Core Strategy	An HRA[20] was conducted alongside the Core Strategy in February 2022. This was a high-level assessment of the Core Strategy in the absence of detailed project-specific	The combined impact of Local Transport Plan strategies, in-combination with SLP growth, on

[16] City of Wolverhampton Council (2024) Wolverhampton Local Plan. Available at: https://www.wolverhampton.gov.uk/planning/planning-policies/wolverhampton-local-plan [Accessed 20/08/24].

[17] Lepus Consulting (January 2024) Wolverhampton Issues and Preferred Options Habitat Regulations Assessment. Available at: https://www.wolverhampton.gov.uk/sites/default/files/2024-02/Habitats%20Regulations%20Assessment%20WLP%20IPO%202024.pdf [Accessed 07.06.24]

[18] Walsall Council. Future planning policy Walsall Borough Local Plan. Available at: https://go.walsall.gov.uk/planning-and-building-control/planning-policy/future-planning-policy [Accessed: 20/08/24].

[20] Atkins (February 2022) Transport for the West Midlands Local Transport Plan Core Strategy. Habitat Regulations Assessment Stage 1: Screening and Stage 2: Appropriate Assessment. Available at: https://www.tfwm.org.uk/media/iviebt3z/tfwm-ltp5-hra-v2.pdf [Accessed: 07/06/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
Transport Plan[19]	metropolitan districts and boroughs). The Core Strategy has been adopted and TfWM is currently consulting on a draft 'Big Moves' plan.	outlines a vision for improving accessibility, reducing traffic and electrifying transport.	information. The HRA concluded that the Plan could be delivered to avoid adverse effects on the integrity of any European sites through standard mitigation techniques. The HRA should be updated accordingly with Plan progress.	traffic related air quality will be considered further in the HRA process.
Severn River Basin Management Plan (RBMP)	The Severn RBMP was updated in October 2022[21].	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[22]. 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 RBMP actions are focused on water body and water dependent European site improvements. Whilst development activities arising from Local Development Plans (including the SLP) may inhibit the ability of the RBMP to achieve objectives relating to European site protected areas, the overall effect of the RBMP is to promote management towards Good Ecological Potential (GEP) and Good Ecological Status (GES).

[19] Transport for West Midlands. Local Transport Plan: Reimagining transport in the West Midlands. Available at: https://www.tfwm.org.uk/who-we-are/our-strategy/local-transport-plan/ [Accessed 20/08/24].

[21] 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: 07/06/24].

22 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: 07/06/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
Humber River Basin Management Plan (RBMP)	The Humber RBMP was updated in October 2022[23].	The Plan provides an overview of river basin planning in England and Wales for the Humber 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[24]. 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 is 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 RBMP actions are focused on water body and water dependent European site improvements. Whilst development activities arising from Local Development Plans (including the SLP) may inhibit the ability of the RBMP to achieve objectives relating to European site protected areas, the overall effect of the RBMP is to promote management towards GEP and GES.
Severn Trent Water Resources Management Plan (WRMP)[25].	The Draft Water Resources Management Plan was devised in 2024. The next step is to create a final Plan which is scheduled to be published mid 2024.	The draft Plan describes a likely future supply / demand deficit of 244Ml/d by plan year 2040-2041 if no action is taken. It sets out the long-term strategy until 2085 to prepare for the future. The Plan proposes ongoing leakage reduction measures, water	The WRMP was supported by an HRA[26]. This concluded that the WRMP is likely to have a significant effect on the following screened in Local Plan European sites within the statutory 25 year planning period either alone (I) or in-combination (L): • Cannock Chase SAC	This plan aims to protect the water environment and takes account for future water demand. It is unlikely that the WRMP will have alone or in-

23 Environment Agency (2022) Humber river basin district management plan: updated 2022. Available at: https://www.gov.uk/guidance/humber-river-basin-district-river-management-plan-updated-2022 [Accessed 07.06.24]

24 Environment Agency (2022) River basin management plan for the Humber River Basin District Habitats Regulations Assessment. Available at: https://assets.publishing.service.gov.uk/media/63524462d3bf7f193d35a0f7/Humber_river_basin_management_plan_2022_HRA.pdf [Accessed: 03/06/24].

25 Severn Trent Water (2024) Draft Water Resources Management Plan: Main Narrative. Available at: https://www.severntrent.com/content/dam/dwrmp24-st/STdWRMP24-Main-Narrative.pdf [Accessed: 07/06/24].

26 Severn Trent Water (2022) Habitats Regulations Assessment: Draft Water Resources Management Plan 2024. Available at: https://www.severntrent.com/content/dam/dwrmp-st-v2/STdWRMP24-HRA-Issue-2-redacted.pdf [Accessed: 07/06/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
		efficiency and metering activities. Some current EA abstraction licenses will be capped to prevent WFD deterioration. It sets out a vision of 'no/low regret' solutions, particularly in response to the challenges of climate change on water demand and supply. The draft builds on previous goals to reduce unsustainable abstraction. Mainly focuses on water availability but considers water quality through design. Severn Trent Water will continue to restore rivers to improve habitats and ecological resilience to low flows.	• Fens Pools SAC • Humber Estuary SAC and Ramsar • River Mease SAC • Severn Estuary SAC and Ramsar A meaningful AA was not possible at the strategic level for demand-side measures and therefore, the AA is necessarily deferred to the project level. The AA of the supply-side options conclude no adverse impacts on the integrity of any European site through suitable mitigation.	combination effects on the water environment.
South Staffs Water Resources Management Plan 2024 (WRMP)[27]	The draft Plan was published for consultation on the 16th November 2022. This is currently under review.	South Staffs Water's published WRMP demonstrates the long-term plans in place to accommodate the impacts of population growth, drought, our environmental obligations and climate change uncertainty in order to balance the supply and demand for water in the communities. The plan covers from 2025 to 2050 and considers until 2100. Since the previous Plan in 2019, the Environment Agency has classified the region as under serious water stress. If no action is taken, by 2050 there would be a supply deficit of 50Ml/d.	An HRA[28] was conducted for the draft WRMP in 2023. The HRA concludes that in-combination effects are highly unlikely however this will need to be confirmed at the project level HRA.	This plan aims to protect the water environment. It has the potential to have a positive in-combination effect with the SLP on the water environment.

[27] South Staffs Water (2024) Revised Draft Water Resources Management Plan 2024. Available at: https://www.south-staffs-water.co.uk/media/4287/sst-revised-draft-wrmp-may-2023.pdf [Accessed: 07/06/24].

[28] Ricardo (2023) Habitats Regulations Assessment: Revised Draft Water Resources Management Plan 2024. Available at: https://www.south-staffs-water.co.uk/media/4143/appendix-p2-ssw-draft-wrmp24-hra_issue2.pdf [Accessed: 07/06/24].

Councils, Plans and Policies	Plan Status	Summary of housing/employment – Key elements of the Local Plan that could cause in-combination effects	Summary of HRA findings	Potential in-combination Likely Significant Effect (LSE)
Severn Trent Water Drought Plan[29]	The Severn Trent Drought Plan was prepared in 2022.	The Drought Plan outlines the operational steps that will be conducted if we face a drought in the next 5 years. It describes how supplies will be enhanced, demands managed, and environmental impacts minimised. It proposes ongoing leakage reduction measures, water efficiency and monitoring and metering activities.	An HRA was not available online.	This plan aims to protect the water environment in times of drought. It is unlikely that the WRMP will have alone or in-combination effects on the water environment.
South Staffs Water Drought Plan[30]	The South Staffs Drought Plan was prepared in 2022.	The Drought Plan outlines the area of operation and describes how South Staffs water will supply adequate quantities of water, at an appropriate quality, with as little recourse as possible to drought orders or permits, during times of drought. It proposes additional indicators to promote demand saving measures earlier in times of drought and prioritises improving customer understanding of drought actions.	An HRA was not available online but the outcomes conclude no likely significant effects the integrity of European sites[31].	This plan aims to protect the water environment in times of drought. It is unlikely that the WRMP will have alone or in-combination effects on the water environment.

[29] Severn Trent Water (2022) Drought Plan 2022-2027. Available at: https://www.severntrent.com/content/dam/stw-plc/water-resource-zones/drought-plan-2022-2027.pdf [Accessed: 03/06/24].

[30] South Staffs Water (2022) South Staffs Water Drought Plan. Available at: https://www.south-staffs-water.co.uk/media/4050/ssw-final-drought-plan-2022.pdf [Accessed: 17/07/24].

[31] South Staffs Water (September 2021) South Staffs Water Draft Drought Plan – Statement of Response. Available at: https://www.south-staffs-water.co.uk/media/3755/south-staffs-statement-of-response-v2.pdf [Accessed: 17/07/24].

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

Cannock Extension Canal SAC[1]

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:

S1831. *Luronium natans*; Floating water-plantain

Threats and Pressures at European site which may be affected by the SLP[2,3]:

- Water pollution (water quality and water clarity);
- Water levels;
- Air pollution – impact of nitrogen deposition;
- Disturbance of habitat by human activity.

Ensor's Pool SAC[4]

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

Qualifying features:

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

Threats and Pressures at European site which may be affected by the SLP[5,6]:

[1] Natural England (2018) Cannock Extension Canal SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5063623810482176 [Accessed: 07/06/24].

[2] Natural England (2014) Cannock Extension Canal SAC SIP. Available at: http://publications.naturalengland.org.uk/file/6749431462363136 [Accessed: 07/06/24].

[3] Natural England (2018) Cannock Extension Canal SAC Conservation Objectives Supplementary Advice. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012672.pdf [Accessed: 20/06/24].

[4] Natural England (2018) Ensor's Pool SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/6577286383927296 [Accessed: 07/06/24].

[5] Natural England (2014) Ensor's Pool SAC SIP. Available at: http://publications.naturalengland.org.uk/publication/5364843502632960 [Accessed: 07/06/24].

[6] Natural England (2019) Ensor's Pool SAC Conservation Objectives Supplementary Advice. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012646.pdf [Accessed: 20/06/24].

Ensor's Pool SAC[4]

- Water pollution; and
- Habitat fragmentation.

Fens Pools SAC[7]

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

Qualifying features:

S1166. *Triturus cristatus*; Great crested newt.

Threats and Pressures at European site which may be affected by the SLP[8,9]:

- Water pollution;
- Habitat fragmentation; and
- Air quality.

Humber Estuary SAC[10]

Conservation objectives:

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

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

Qualifying features:

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

[7] Natural England (2018) Fens Pools SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6642225895440384 [Accessed: 07/06/24].

[8] Natural England (2014) Fens Pools SAC SIP. Available at: http://publications.naturalengland.org.uk/file/4872756676001792 [Accessed: 07/06/24].

[9] Natural England (2017) Fens Pools SAC Conservation Objectives Supplementary Advice. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030150.pdf [Accessed: 20/06/24].

[10] Natural England (2018) Humber Estuary SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5009545743040512 [Accessed 24/06/24].

Humber Estuary SAC[10]

H1130. Estuaries

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

H1150. Coastal lagoons*

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

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

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

H2130. Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland

H2160. Dunes with *Hippophae rhamnoides*; Dunes with sea-buckthorn

S1095. *Petromyzon marinus*; Sea lamprey
S1099. *Lampetra fluviatilis*; River lamprey

S1364. *Halichoerus grypus;* Grey seal

Threats and Pressures at European site which may be affected by the SLP[11]:

- Hydrology;
- Direct land take for development;
- Public access/disturbance; and,
- Air pollution – impact of atmospheric nitrogen deposition.

Humber Estuary SPA[12]

Conservation objectives:
Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

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

Qualifying features:

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

A021 *Botaurus stellaris*; Great bittern (Breeding)

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

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

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

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

A132 *Recurvirostra avosetta*; Pied avocet (Breeding)

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

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

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

[11] Natural England (2015) Humber Estuary SIP. Available at: http://publications.naturalengland.org.uk/file/5730884670980096 [Accessed 25/06/24].

[12] Natural England (2019) Humber Estuary SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/5382184353398784 [Accessed 24/06/24].

Humber Estuary SPA[12]

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

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

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

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

A195 *Sterna albifrons*; Little tern (Breeding)

Waterbird assemblage

Threats and Pressures at European site which may be affected by the SLP[13]:

- Water pollution;
- Public access/disturbance;
- Direct land take for development; and,
- Air pollution – impact of atmospheric nitrogen deposition.

Humber Estuary Ramsar[14]

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

Ramsar Criterion	Justification for the application of each criterion
1	The site is a representative example of a near-natural estuary with the following component habitats: dune systems and humid dune slacks, estuarine waters, intertidal mud and sand flats, saltmarshes, and coastal brackish/saline lagoons. It is a large macro-tidal coastal plain estuary with high suspended sediment loads, which feed a dynamic and rapidly changing system of accreting and eroding intertidal and subtidal mudflats, sandflats, saltmarsh and reedbeds. Examples of both strandline, foredune, mobile, semi-fixed dunes, fixed dunes and dune grassland occur on both banks of the estuary and along the coast. The estuary supports a full range of saline conditions from the open coast to the limit of saline intrusion on the tidal rivers of the Ouse and Trent. Wave exposed sandy shores are found in the outer/open coast areas of the estuary. These change to the more moderately exposed sandy shores and then to sheltered muddy shores within the main body of the estuary and up into the tidal rivers. The lower saltmarsh of the Humber is dominated by common cordgrass Spartina anglica and annual glasswort Salicornia communities. Low to mid marsh communities are mostly represented by sea aster Aster tripolium, common saltmarsh grass Puccinellia maritima and sea purslane Atriplex portulacoides communities. The upper portion of the saltmarsh community is atypical, dominated by sea couch Elytrigia atherica (Elymus pycnanthus) saltmarsh community. In the upper reaches of the estuary, the tidal marsh community is dominated by the common reed Phragmites australis fen and sea club rush Bolboschoenus maritimus swamp with the couch grass Elytrigia repens (Elymus repens) saltmarsh community. Within the Humber Estuary Ramsar site there are good examples of four of the five physiographic types of saline lagoon.

[13] Natural England (2015) Humber Estuary SIP. Available at: http://publications.naturalengland.org.uk/file/5730884670980096 [Accessed 25/06/24].

[14] JNCC (2007) Ramsar Information Sheet: Humber Estuary. Available at: https://rsis.ramsar.org/RISapp/files/RISrep/GB663RIS.pdf [Accessed 25/06/24].

3	The Humber Estuary Ramsar site supports a breeding colony of grey seals Halichoerus grypus at Donna Nook. It is the second largest grey seal colony in England and the furthest south regular breeding site on the east coast. The dune slacks at Saltfleetby-Theddlethorpe on the southern extremity of the Ramsar site are the most north-easterly breeding site in Great Britain of the natterjack toad Bufo calamita.
5	Assemblages of international importance: 153,934 waterfowl, non-breeding season (5 year peak mean 1996/97-2000/2001)
6	Species/populations occurring at levels of international importance. Qualifying species/populations (as identified at designation): Species with peak counts in winter: • Common shelduck, *Tadorna tadorna*, NW Europe - 4464 individuals, representing an average of 1.5% of the population (5 year peak mean 1996/7-2000/1) • Eurasian golden plover, *Pluvialis apricaria*, altifrons subspecies, NW Europe, W Continental Europe, NW Africa population - 30,709 individuals, representing an average of 3.3% of the GB population (5 year peak mean 1996/7-2000/1) • Red Knot, *Calidris canutus* islandica subspecies - 28165 individuals, representing an average of 6.3% of the population (5 year peak mean 1996/7-2000/1) • Dunlin, *Calidris alpina alpina*, Europe - 22222 individuals, representing an average of 1.7% of the population (5 year peak mean 1996/7-2000/1) • Black-tailed godwit, *Limosa limosa*, islandica subspecies - 1,113 individuals, wintering, representing an average of 3.2% of the population (5 year peak mean 1996/7-2000/1) • Bar-tailed godwit, *Limosa lapponica*, lapponica subspecies - 2,752 individuals, wintering, representing an average of 2.3% of the population (5 year peak mean 1996/7-2000/1) • Common redshank, *Tringa totanus totanus* - 4632 individuals, representing an average of 3.6% of the population (5 year peak mean 1996/7- 2000/1)
8	The Humber Estuary acts as an important migration route for both river lamprey Lampetra fluviatilis and sea lamprey Petromyzon marinus between coastal waters and their spawning areas.

Threats and Pressures at European site which may be affected by the SLP:

- Water pollution (domestic sewage); and,
- Recreational / tourism disturbance.

River Mease SAC[15]

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

[15] Natural England (2016) River Mease SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/publication/6217720043405312 [Accessed: 07/06/24].

River Mease SAC[15]

- 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 *Callitricho-Batrachion* vegetation; Rivers with floating vegetation often dominated by water-crowfoot

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

S1149. *Cobitis taenia*; Spined loach
S1163. *Cottus gobio*; Bullhead
S1355. *Lutra lutra;* Otter

Threats and Pressures at European site which may be affected by the SLP[16,17]:

- Water pollution (water quality and water clarity) – specific targets set for water quality and flows[18]; and
- Water abstraction.

Severn Estuary SAC[19]

Conservation objectives:

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

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

Qualifying features:

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

H1130. Estuaries;

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

H1170. Reefs;

H1330. Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); Atlantic salt meadows;

S1095. *Petromyzon marinus*; Sea lamprey;

S1099. *Lampetra fluviatilis*; River lamprey; and

S1103. *Alosa fallax*; Twaite shad.

[16] Natural England (2014) River Mease SAC SIP. Available at: http://publications.naturalengland.org.uk/file/6448011194400768 [Accessed: 07/06/24].

[17] Natural England (2016) River Mease SAC Conservation Objectives Supplementary Advice. Available at: https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030258.pdf [Accessed: 20/06/24].

[18] Natural England (2014) River Mease Moving towards common standards monitoring guidance targets for SAC rivers. Available at: http://publications.naturalengland.org.uk/file/5583205847531520 [Accessed: 07/06/24].

[19] Natural England (2019) Severn Estuary SAC Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6377265718099968 [Accessed: 07/06/24].

Severn Estuary SAC[19]

Threats and Pressures at European site which may be affected by the SLP[20]:

- Public access / disturbance;
- Impacts from development;
- Coastal squeeze;
- Water pollution; and
- Air pollution.

Severn Estuary SPA[21]

Conservation objectives:

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

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

Qualifying features:

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

Threats and Pressures at European site which may be affected by the SLP[22]:

- Public access / disturbance;
- Impacts from development;
- Coastal squeeze;
- Water pollution; and
- Air pollution.

Severn Estuary Ramsar[23]

Ramsar sites do not have the Conservation Objectives in the same way as SPAs and SACs. Information regarding the designation of Ramsar sites is contained in JNCC Ramsar Information

[20] Natural England (2015) Severn Estuary SIP. Available at: http://publications.naturalengland.org.uk/file/4856107648417792 [Accessed: 07/06/24].

[21] Natural England (2019) Severn Estuary SPA Conservation Objectives. Available at: http://publications.naturalengland.org.uk/file/6288530213175296 [Accessed: 07/06/24].

[22] Natural England (2015) Severn Estuary SIP. Available at: http://publications.naturalengland.org.uk/file/4856107648417792 [Accessed: 07/06/24].

[23] JNCC (2008) Ramsar Information Sheet: UK11081 Severn Estuary. Available at: https://jncc.gov.uk/jncc-assets/RIS/UK11081.pdf [Accessed: 07/06/24].

Severn Estuary Ramsar[23]

Sheets. Ramsar Criteria are the criteria for identifying Wetlands of International Importance. The relevant criteria and ways in which this site meets the criteria are presented in the table below.

Ramsar Criterion	Justification for the application of each criterion
1	Due to immense tidal range (second-largest in world), this affects both the physical environment and biological communities.
3	Due to unusual estuarine communities, reduced diversity and high productivity.
4	This site is important for the run of migratory fish between sea and river via estuary. Species include: Salmon *Salmo salar*; Sea trout *S. trutta*; Sea lamprey *Petromyzon marinus*; River lamprey *Lampetra fluviatilis*; Allis shad *Alosa alosa*; Twaite shad *A. fallax*, and Eel *Anguilla anguilla*. It is also of particular importance for migratory birds during spring and autumn.
5	Assemblages of international importance: Species with peak counts in winter: • 70919 waterfowl (5 year peak mean 1998/99-2002/2003)
6	Species/populations occurring at levels of international importance. Qualifying species/populations (as identified at designation): Species with peak counts in winter: • Tundra swan, *Cygnus columbianus bewickii*, NW Europe - 229 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/9-2002/3) • Greater white-fronted goose, *Anser albifrons albifrons*, NW Europe - 2076 individuals, representing an average of 35.8% of the GB population (5 year peak mean for 1996/7-2000/01) • Common shelduck, *Tadorna tadorna*, NW Europe - 3223 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3) • Gadwall, *Anas strepera strepera*, NW Europe - 241 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3) • Dunlin, *Calidris alpina alpina*, W Siberia/W Europe - 25082 individuals, representing an average of 1.8% of the population (5 year peak mean 1998/9-2002/3) • Common redshank, *Tringa totanus totanus* - 2616 individuals, representing an average of 1% of the population (5 year peak mean 1998/9- 2002/3) Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species regularly supported during the breeding season: • Lesser black-backed gull, *Larus fuscus graellsii*, W Europe/Mediterranean/W Africa - 4167 apparently occupied nests, representing an average of 2.8% of the breeding population (Seabird 2000 Census) Species with peak counts in spring/autumn:

Ramsar Criterion	Justification for the application of each criterion
	• Ringed plover, *Charadrius hiaticula*, Europe/Northwest Africa - 740 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3) Species with peak counts in winter: • Eurasian teal, *Anas crecca*, NW Europe - 4456 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3) • Northern pintail, *Anas acuta*, NW Europe - 756 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9- 2002/3)
8	The fish of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded. Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla* use the Severn Estuary as a key migration route to their spawning grounds in the many tributaries that flow into the estuary. The site is important as a feeding and nursery ground for many fish species particularly allis shad *Alosa alosa* and twaite shad *A. fallax* which feed on mysid shrimps in the salt wedge.

Threats and Pressures at European site which may be affected by the SLP:

- Recreational / tourism disturbance.

Appendix C: Draft Air Quality Assessment

[Final version was not available at the time of writing]

Appendix D: Sandwell Local Plan Screening to Inform the Test of Likely Significance

The Sandwell Local Plan (SLP) polices have been screened using the DTA HRA pre-screening categories[1] (Table 2.1 main report).

Introduction

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
n/a	This section provides introductory text, background and context for the SLP.	Screen Out Administrative text

1. Sandwell 2041: Spatial Vision, Priorities and Objectives

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Sandwell Local Plan Vision 2041	The proposed Vision for Sandwell in 2041 sets out the aspiration to support growth and regeneration for the borough, meeting the needs of the local population and addressing key issues, whilst conserving the natural and historic environment. This is a general aspiration for the Plan (supported by ten ambitions) and will not trigger a change or development.	Screen Out Category A
Sandwell Local Plan Priorities, Strategy Objectives and Policies	To assist with delivery of the vision the SLP sets out a set of priorities and strategic objectives. The objectives are central to achieving the delivery of the vision set out in the SLP centred around climate change, the environment, the community, design, the economy and infrastructure. These are general aspirations for the Plan and will not trigger a change or development.	Screen Out Category A

2. Spatial Strategy

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
n/a	This section provides a general overview of the spatial strategy for Sandwell – the balanced green growth strategy. It does not directly trigger a change or development.	Screen Out Category A

[1] Tyldesley, D., and Chapman, C. (2013) The Habitats Regulations Assessment Handbook (September) (2013) edition UK: DTA Publications Limited. Available at: www.dtapublications.co.uk

3. Framework Policies

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SDS1 – Spatial Strategy for Sandwell	To support the attainment of the SLP, drive sustainable and strategic economic and housing growth and meet local aspiration the SLP supports a target to deliver at least 10,434 net new homes over the period 2022-2041 and maintain the provision of 1,221ha of allocated employment land. The allocations are set out in Appendices B and C of the SLP. Development within the Plan area (from the SLP alone and in- combination with development in neighbouring local plan areas (see **Appendix A**) has the potential to cumulatively result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites).	Screen In Category L
Policy SDS2 – Increasing efficiency and resilience	The policy sets out the design requirements of developments to maximise resistance and resilience to climate change. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDS3 – Regeneration in Sandwell	The policy identifies regeneration areas within Sandwell and sets out how specific areas will accommodate different types of development, infrastructure and investment. It focuses on the strategic centre of West Bromwich and the Regeneration Areas. The policy sets out the development of a minimum of 2,134 new homes of mixed type and tenure in these Regeneration Areas as well as the main clusters of local employment land (**Figure C.1**). Development within the Plan area (from the SLP alone and in-combination with development in neighbouring local plan areas (see Appendix A) has the potential cumulatively to result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites). This policy allocates the development in the following areas (**Figure D.1**): • West Bromwich • Carter's Green • Dudley Port • Smethwick • Wednesbury to Tipton Metro Corridor	Screen In Category L
Policy SDS4 – Towns and Local Areas	The policy sets out the provision for 474 new homes in communities outside West Bromwich and the Regeneration Areas as well as an additional 637ha of employment land with improved infrastructure and access. Development within the Plan area (from the SLP alone and in-combination with development in neighbouring local plan areas (see Appendix A) has the potential cumulatively to result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and	Screen In Category L

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
	• Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites).	
Policy SDS5 - Achieving Well Designed Places	The policy seeks to ensure that all new developments within the Plan area are of high-quality design and have regard for the natural, built, and historic environment. It sets out plans for a Design Code supplementary plan to be produced for Sandwell to which the design of new development will be expected to adhere to. It lists criteria for high quality design and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category B
Policy SDS6 - Cultural Facilities and the Visitor Economy	The policy aims to provide the protection, enhancement, promotion, and expansion of cultural, tourist and leisure facilities within the borough. It sets high-level criteria to guide these facilities but will not lead to development or any change which may have an LSE on any European site.	Screen Out Category B
Policy SDS7 – Sandwell's Green Belt	The policy aims to maintain a strong Green Belt boundary that will promote urban renaissance alongside aiding climate change mitigation and providing accessibility to the open countryside for residents of the borough. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category B
Policy SDS8 – Green and Blue Infrastructure in Sandwell	The policy outlines the requirements of developments to incorporate green and blue infrastructure and how this will embed into the wider Green Infrastructure (GI) and Blue Infrastructure (BI) network across the borough. It sets out high-level criteria and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

4. Sandwell's Natural and Historic Environment

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SNE1 - Nature Conservation	The policy aims to protect, conserve and enhance biodiversity assets, from internationally designated to locally protected sites and also aims to ensure protected or rare species are not harmed by future development. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SNE2 – Protection and Enhancement of Wildlife Habitats	The policy requires all development to deliver a minimum of 10% biodiversity net gain in biodiversity value when measured against the site's baseline information. The policy identifies sites suitable for the provision of biodiversity units for off-site BNG. It also sets out the principles of the Local Nature Recovery Strategy as a requirement for all development. It sets out the local opportunities for habitats and wildlife. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SNE3- Provision, Retention and Protection of Trees, Woodlands and Hedgerows	The policy aims to create, retain and protect trees, woodlands and hedgerows, including ancient trees, ancient woodlands and veteran trees across the Plan area. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SNE4 - Geodiversity and the Black Country UNESCO Global Geopark	This policy protects and enhances geodiversity sites across the Borough, particularly within the boundaries of the Black Country UNESCO Global Geopark. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SNE5 – The Rowley Hills	This policy aims to protect the strategic importance of this landscape area in terms of its character and amenity. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SNE6 - Canals	This policy aims to protect and enhance Sandwell's 66km canal network. It sets out the requirements for developments which are likely to affect the canal network. It 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.	Screen Out Category D
Policy SHE1 – Listed Buildings and Conservation Areas	This policy aims to ensure heritage assets are conserved in a manner appropriate to their significance, in line with national policy, and that the setting and special character of heritage assets are not adversely impacted by development. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SHE2 – Development in the Historic Environment	This policy aims to ensure heritage assets, both designated and non-designated, are protected throughout the Borough and that proposals sustain and reinforce special character and conserve the locally distinctive historic aspects of Sandwell. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SHE3 – Locally Listed Buildings	This policy sets out the requirements for development proposals in regard to locally listed buildings within the Borough. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SHE4 - Archaeology	This policy sets out the requirements for development proposals in regard to heritage assets within the Borough and specific requirements in relation to the archaeological nature of these assets. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D

5. Climate Change

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SCC1 – Energy Infrastructure	This policy sets out how energy infrastructure will be considered, including how opportunities for decentralised energy and district heating will be identified. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SCC2 – Reducing Operational Carbon in New Build Non-Residential Development	This policy sets out the requirements for reducing carbon in new non-domestic development proposals to encourage a clean energy supply. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SCC3 – Climate-adapted Design and Construction	This policy requires all new residential and non-residential developments to employ sustainable design and construction principles to mitigate against and adapt to climate change. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SCC4 – Embodied Carbon and Waste	This policy requires large scale major residential and non-residential development to complete a whole-life carbon assessment and limit emissions arising from the construction of new development. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SCC5 – Flood Risk	This policy seeks to manage the risk of flooding throughout the Plan area and ensure that measures are in place within new developments to promote resilience to flooding. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SCC6 – Sustainable drainage	This policy sets out guidelines for development with respect to sustainable drainage to help reduce the risk of surface water flooding. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D

6. Health and Wellbeing in Sandwell

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SHW1 – Health Impact Assessments	This policy sets out the requirement for development to undertake a Health Impact Assessment (HIA), dependent on the scale and nature of the proposal to ensure that opportunities for promoting healthy lifestyles are maximised. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHW2 – Healthcare Infrastructure	This policy seeks to ensure that all new healthcare facilities are well designed and accessible, with a particular focus on ensuring facilities are accessible by public transport. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHW3 – Air Quality	This policy requires development proposals to promote active travel to support a modal shift and the use of public transport. The policy also sets out the requirements of development to improve air quality in construction and when occupied / operational. It is a plan-wide environmental protective policy and will not lead to development or any change which may have an LSE on any European site.	Screen Out Category D
Policy SHW4 – Open Space and Recreation	This policy seeks to ensure that open space and recreation facilities throughout the Plan area will be protected, managed and enhanced in order to provide safe and accessible community facilities for existing	Screen Out Category F

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
	and future residents. It will not lead to development or any change which may have an LSE on any European site.	
Policy SHW5 – Playing Fields and Sports Facilities	This policy seeks to ensure that playing fields and sports facilities throughout the Plan area are protected, managed, and enhanced in order to provide safe and accessible community facilities for existing and future residents. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHW6 - Allotments	This policy sets out measures to protect allotments within the borough and additionally ensure that the provision of new allotments meet certain standards. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

7. Sandwell's Housing

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SHO1 - Delivering Sustainable Housing Growth	This policy outlines the key sources of housing land supply and the timeframes for housing delivery. It requires the development of sites for housing to make best use of available land and infrastructure. Development within the Plan area (from the SLP alone and in-combination with development in neighbouring local plan areas (see Appendix A) has the potential to cumulatively result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites).	Screen In Category L
Policy SHO2 – Windfall developments	This policy sets out criteria for windfall development proposals. Development within the Plan area (from the SLP alone and in-combination with development in neighbouring local plan areas (see Appendix A) has the potential to cumulatively result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites).	Screen In Category L
Policy SHO3 - Housing Density, Type and Accessibility	This policy aims to ensure that residential developments contribute towards the local housing need, supporting the current and future requirements of the population in terms of housing type, density and size, as well as ensuring new residents have good access to sustainable transport options. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHO4 – Affordable Housing	This policy would help to ensure that, throughout the Plan area, the SLP delivers an appropriate mix of affordable housing that meets the varied social and economic needs of current and future residents. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHO5 – Delivering Accessible and Self / Custom Build Housing	This policy seeks to ensure an appropriate mix of accessible homes are delivered across the Plan area, as well as the opportunity for self-build homes. The policy also sets out requirements for developments where	Screen Out Category F

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
	the criteria for accessible and self-build homes on site are not viable. It will not lead to development or any change which may have an LSE on any European site.	
Policy SHO6 – Protecting Family Housing (Use Class C3)	This policy seeks to respond to the local context and identified needs, ensuring housing suitable for families is protected. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHO7 - Houses in Multiple Occupation	This policy supports the development of HMOs, providing the proposal is in accordance with the criteria set out in the policy to provide a range of housing options to residents. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SHO8 - Education Facilities	This policy seeks to support the development or expansion of education facilities secured through a range of funding measures, including planning obligations or through the Community Infrastructure Levy (CIL). This policy does not allocate sites itself, rather sets out delivery objectives. It will therefore not lead to development or any change itself which may have an LSE on any European site.	Screen Out Category F
Policy SHO9 - Accommodations for Gypsies and Travellers and Travelling Showpeople	This policy sets out requirements to safeguard existing Gypsy and Traveller and Travelling Showpeople pitches and new pitches which would be required to meet future need (in accordance with the Black Country Gypsy and Traveller Accommodation Assessment (GTAA) 2022). Up to 2031, ten pitches are needed. The Plan will deliver sufficient pitches to meet the need up to 2031 plus a buffer of two pitches (20%). These allocations are detailed in **Figure D.1**. Travelling Showpeople require an additional 32 plots over the Plan period but no deliverable site options have been put forward by the SLP. Development within the Plan area (from the SLP alone and in-combination with development in neighbouring local plan areas (see Appendix A) has the potential to cumulatively result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites).	Screen In Category L
Policy SHO10 – Housing for People with Specific Needs	This policy sets the criteria for development which caters for people with specific needs. It does not allocate sites itself, rather sets out delivery objectives. It will therefore not lead to development or any change itself which may have an LSE on any European site.	Screen Out Category F

8. Sandwell's Economy

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SEC1 – Providing for Economic Growth and Job Creation	This policy seeks to maintain the existing provision of 1,221 ha of employment land alongside an additional 211ha between 2020 to 2041 (9.07ha per annum). The SLP allocates 42ha of employment land (see **Figure D.1**). Development within the Plan area from the SLP in-combination with development in neighbouring local plan areas (see Appendix A) has the potential to cumulatively result in the following LSEs:	Screen In Category L

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
	• Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites).	
Policy SEC2 – Strategic Employment Areas	This policy seeks to allocate Strategic Employment Areas within the borough, which correspond to areas of highest market demand and are characterised by clusters of high technology growth. The policy seeks to safeguard areas for mainly manufacturing and logistics use (Classes E(g)(ii), E(g)(iii), B2 and B8). This policy does not allocate development itself but sets out uses which may be considered in these areas. It will therefore not lead to development or any change itself which may have an LSE on any European site.	Screen Out Category F
Policy SEC3 – Local Employment Areas	This policy seeks to allocate Local Employment Areas to support the provision of industrial, logistics and commercial activities which would be likely to result in benefits for the local economy and provision of local employment opportunities. The policy seeks to safeguard areas for mainly manufacturing and logistics use (Classes E(g)(ii), E(g)(iii), B2 and B8). This policy does not allocate sites itself, rather sets out criteria for selection. It will therefore not lead to development or any change itself which may have an LSE on any European site.	Screen Out Category F
Policy SEC4 – Other Employment Areas	This policy supports new industrial employment uses or extensions to existing industrial employment uses which would be likely to increase the provision of employment floorspace across the Borough, outside of the identified Strategic and Local Employment Areas. This policy does not allocate sites itself, rather sets out criteria for selection. It will therefore not lead to development or any change itself which may have an LSE on any European site.	Screen Out Category F
Policy SEC5 – Improving Access to the Labour Market	This policy supports proposals for new employment development, so long as the employment opportunities are accessible, in particular for priority groups and residents in the most deprived areas of Sandwell. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SEC6 – Relationship between Industry and Sensitive Uses	This policy seeks to ensure that any development of new industrial sites does not majorly disrupt neighbouring land uses, using buffers where appropriate. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

9. Sandwell's Centres

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SCE1 – Sandwell's Centres	This policy aims to ensure centres in the Borough provide residents with services and facilities that meet the local needs for retail, leisure, commercial, residential, community and civic services; and sets out hierarchies for town centres, edge of centre areas and out of centre areas. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category B
Policy SCE2 – Non-E Class Uses in Town Centres	This policy outlines measures in place to retain the predominance of retail uses (Class E) within defined Retail Core / Primary Shopping Areas. This policy does not allocate sites itself, rather sets out criteria for the	Screen Out

	extension to protect the vitality and viability of the retail areas and additionally protect jobs in the area and will therefore not lead to development or any change which may have an LSE on any European site.	Category B
Policy SCE3 – Town Centres (Tier-Two centres)	This policy supports the development of retail, office, leisure, residential, community, health, education and cultural facilities" with the defined Town Centres. This policy does not allocate any sites and will therefore not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SCE4 – District and Local Centres (Tier-Three centres)	This policy supports development within defined District or Local Centres that would serve communities, including food stores and day-to-day services, complementing the higher tier centres. This policy does not allocate any sites and will therefore not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SCE5 – Provision of Small Scale Local Facilities not in Centres	This policy sets out requirements for proposals relating to small-scale local facilities, seeking to ensure that they will meet the specific day-to-day needs of a population. This policy does not allocate sites itself, rather sets out criteria for the extension of existing floorspace. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SCE6 – Edge of Centre and Out of Centre Development	This policy sets out criteria for development proposals within edge-of-centre and out-of-centre locations. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category B

Town Centre Profiles

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Bearwood	The section provides contextual information, general visions and aspirations and proposals for Bearwood. The following locations offer opportunities for improvements as additions to the public realm and character of the area: • BE1 • BE2 • BE3 • BE4 • BE5 • BE6	Screen out Category B
Blackheath	The section provides contextual information, general visions and aspirations and proposals for Blackheath. The following locations are identified as potential development locations with possible improvements to local amenity and character: • BH 1 • BH3 • BH4	Screen out Category B

Cape Hill	The section provides contextual information, general visions and aspirations and proposals for Cape Hill. The following locations offer opportunities for improvements as additions to the public realm and character of the area: • CH1 • CH2 • CH3	Screen out Category B
Cradley Heath	The section provides contextual information, general visions and aspirations and proposals for Cradley Heath. The following locations are identified as potential development locations with possible improvements to local amenity and character: • CrH1 • CrH2 • CrH3 • CrH4	Screen out Category B
Great Bridge	The section provides contextual information, general visions and aspirations and proposals for Great Bridge.	Screen out Category B
Oldbury	The section provides contextual information, general visions and aspirations and proposals for Cradley Heath. The following locations are identified as potential development locations: • OL1	Screen out Category B
Wednesbury Town	The section provides contextual information, general visions and aspirations and proposals for Great Bridge.	Screen out Category B

10. West Bromwich

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SWB1 – West Bromwich Town Centre	This policy sets out the contextual background and strategic priorities for West Bromwich and how these will be achieved. This policy will not directly lead to development or any change which may have an LSE on any European site.	Screen Out Category B
Policy SWB2 – Development in West Bromwich	This policy sets out development which will be delivered in West Bromwich for housing, retail, leisure, office, sustainability and accessibility. This includes a minimum of 1,162 new homes in the strategic centre by 2041. Allocations are detailed in Appendix B of the SLP and shown on **Figure D.1** below. Development within West Bromwich in-combination with development in the rest of the Plan area has the potential to cumulatively result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and	Screen In Category L

	• Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites)	

11. Transport

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy STR1 – Priorities for the Development of the Transport Network	This policy outlines the Council's priorities for the transport network during the Plan period, covering a wide range of transport modes including the strategic road network, rail, rapid transit and interchanges. Whilst this policy safeguards land for infrastructure projects and supports their delivery it does not allocate any projects directly. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR2 – Safeguarding the Development of the Key Route Network (KRN)	This policy seeks to ensure that the KRN is effectively managed and meets it strategic functions. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR3 – Managing Transport Impacts of New Development	This policy states that proposals that are likely to have significant impacts on transport, unless sufficiently mitigated, will not be granted. The policy emphasises that sustainable travel options must more convenient than car usage to promote a genuine modal shift. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR4 – The Efficient Movement of Freight and Logistics	This policy sets out guidelines for the movement of freight, and the prioritisation of sustainable modes of transport where possible. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR5 – Creating Coherent Networks for Cycling and Walking	This policy seeks to ensure that walking and cycling infrastructure networks are developed and maintained across the borough to encourage sustainable travel choices. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR6 – Influencing the Demand for Travel and Travel Choices	This policy promotes the holistic management of traffic across the borough and seeks to encourage a modal shift towards more sustainable travel options, in accordance with the wider regional priorities for the West Midlands. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR7 – Network Management	This policy sets out the potential to introduce technologies (e.g. VMS) to allow the effective planning of journeys, which could help to improve the overall management of the transport network and reduce congestion. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR8 - Parking Management	This policy aims to guide traffic within the borough through parking measures that strive to reduce the impacts of vehicle use on air quality through discouraging car use in centres. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy STR9 – Planning for Low Emission Vehicles	This policy provides measures that will enable the use of low emission vehicles, helping to meet the aim to achieve net zero emissions by 2041. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy STR10 – Transport Innovation and Digital Connectivity	This policy promotes the integration of smart infrastructure and provision of 5G connectivity, including within new homes and businesses and integrated within the transport network, which would encourage remote working and reduce the need to travel. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

12. Infrastructure and Delivery

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SID1 – Infrastructure Provision and Viability Assessments	This policy requires all new developments to be supported by sufficient on and off site infrastructure to ensure its needs are met whilst mitigating impacts on the environment. These will be secured through planning obligations, the Community Infrastructure Levy / Infrastructure Funding Statements, planning conditions or other relevant means or mechanisms as necessary. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SID2 – Digital Infrastructure	This policy supports the provision of 5G networks subject to meeting the outlined requirements. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SID3 – 5G Network Infrastructure	This policy sets out the requirements of 5G network infrastructure to mitigate against adverse impacts on local landscapes, biodiversity and heritage. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SID4 – Communications Infrastructure / Equipment	This policy sets out the requirements of digital communicative infrastructure and equipment. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

13. Waste and Minerals

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SWA1 – Waste Infrastructure Future Requirements	This policy sets out the overall strategy and principles for waste management and criteria for waste management facilities proposals. It does not allocate any waste sites itself. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category B
Policy SWA2 – Waste Sites	The aim of this policy is to safeguard and retain capacity of the existing waste facilities in the borough. It will not lead to development or any change which may have an LSE on any European site.	Screen Out

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
		Category F
Policy SWA3 – Preferred Areas for New Waste Facilities	This policy identifies preferred locations for new waste management infrastructure in Sandwell within existing employment areas. The policy sets out the requirements of new waste management proposals. Preferred areas for new waste facilities are detailed in Appendix B of the Draft SLP and shown on **Figure C.1** below. Development within the Plan area from the SLP in-combination with development in neighbouring local plan areas (see Appendix A) has the potential to cumulatively result in the following LSEs: • Air Pollution (in-combination LSEs on the Cannock Extension Canal SAC); and • Water quality and quantity (in-combination LSEs on a number of SACs, SPAs and Ramsar sites) Preferred areas for new waste facilities sites: • M.4 • M.5 • M.6 • M.7 • M.8 • M.9 • M10	Screen In Category L
Policy SWA4 – Locational Considerations for New Waste Facilities	This policy sets out criteria which new waste management facilities should be in accordance with. As a result, waste management facilities will only be supported where there is an identified need for the facility. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SWA5 - Resource Management and New Development	The policy sets out criteria for the sustainable management of waste and resources associated with new developments, during both construction and occupation. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SMI1 – Minerals Safeguarding	The policy safeguards existing mineral sites in Sandwell. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SMI2 – Managing the Effects of Mineral Development	This policy sets out criteria by which development proposals for mineral working and related infrastructure would be expected to comply. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

14. Development Constraints and Industrial Legacy

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion

Policy SCO1 – Hazardous Installations and Substances	This policy sets out criteria by which development proposals will be expected to comply regarding installations and substances that could be harmful to health, including those which are toxic, explosive, inflammable, highly reactive and hazardous. It will seek the reduction or removal of hazardous components when notified. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SCO2 – Pollution Control	This policy sets out criteria by which development proposals will be expected to comply regarding air, noise, smell and light pollution. It 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.	Screen Out Category D
Policy SCO3 – Land contamination and instability	This policy would ensure any development on unstable or contaminated land is structurally sound and poses no danger to human or environmental health. The Council will support the reuse of degraded landscapes and regeneration of the borough, including derelict, despoiled, degraded or contaminated land. It is a plan wide environmental protection policy and will not lead to development or any change which may have an LSE on any Habitats site.	Screen Out Category D

15. Development Management

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SDM1 - Design Quality	This policy aims to implement good design throughout the Borough through effective design codes that can help to ensure new developments are integrated effectively into the local landscape, reinforcing local distinctiveness, contributing to the greening of Sandwell and conserving cultural and heritage assets. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM2 – Development and Design Standards	This policy sets out the requirements of development proposals to incorporate specific design standards that are nationally recognised. It includes water efficiency standards. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM3 – Tall Buildings and Gateway Sites	This policy sets out the requirements for development proposals regarding tall buildings and gateway sites, specifically the design and location of proposals. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM4 - Advertisements	This policy sets out the requirements for the appropriate design and location of advertisements to prevent adverse impacts on the surrounding landscape and health and safety of the public. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM5 – Shop Fronts and Roller Shutters	This policy provides requirements for planning proposals involving shop fronts and roller shutters in relation to their design, installation and location. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM6 – Hot Food Takeaways	This policy aims to counteract the over-concentration of hot food takeaways in particular locations and provide a healthy balance of food choices across the borough. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
Policy SDM7 – Management of Hot Food Takeaways	This policy sets out the requirements for the management of HFTs in relation to the issues that could arise on residents, the environment and waste. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM8 – Gambling Activities and Alternative Financial Services	This policy aims to prevent potential detrimental impact on the amenity of neighbouring uses, through increased noise and disturbance as a result of gambling or other financial services. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM9 – Community Facilities	This policy sets out support for new community facilities within centres, provided a set of criteria are met. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F
Policy SDM10 - Telecommunications	This policy supports the provision of telecommunications infrastructure, where this would not impede on highways or the street scene. It will not lead to development or any change which may have an LSE on any European site.	Screen Out Category F

Delivery, Monitoring, and Implementation

Policy Name	Summary of Policy and Identification of LSEs	Screening Conclusion
n/a	Sandwell Council is committed to ensuring that robust monitoring of the implementation of the SLP is carried out. The aim of this chapter is to set out monitoring measures to ensure that the Strategic Objectives of the SLP are delivered successfully so that the Vision for the Borough for 2041 is realised.	Screen Out Category B

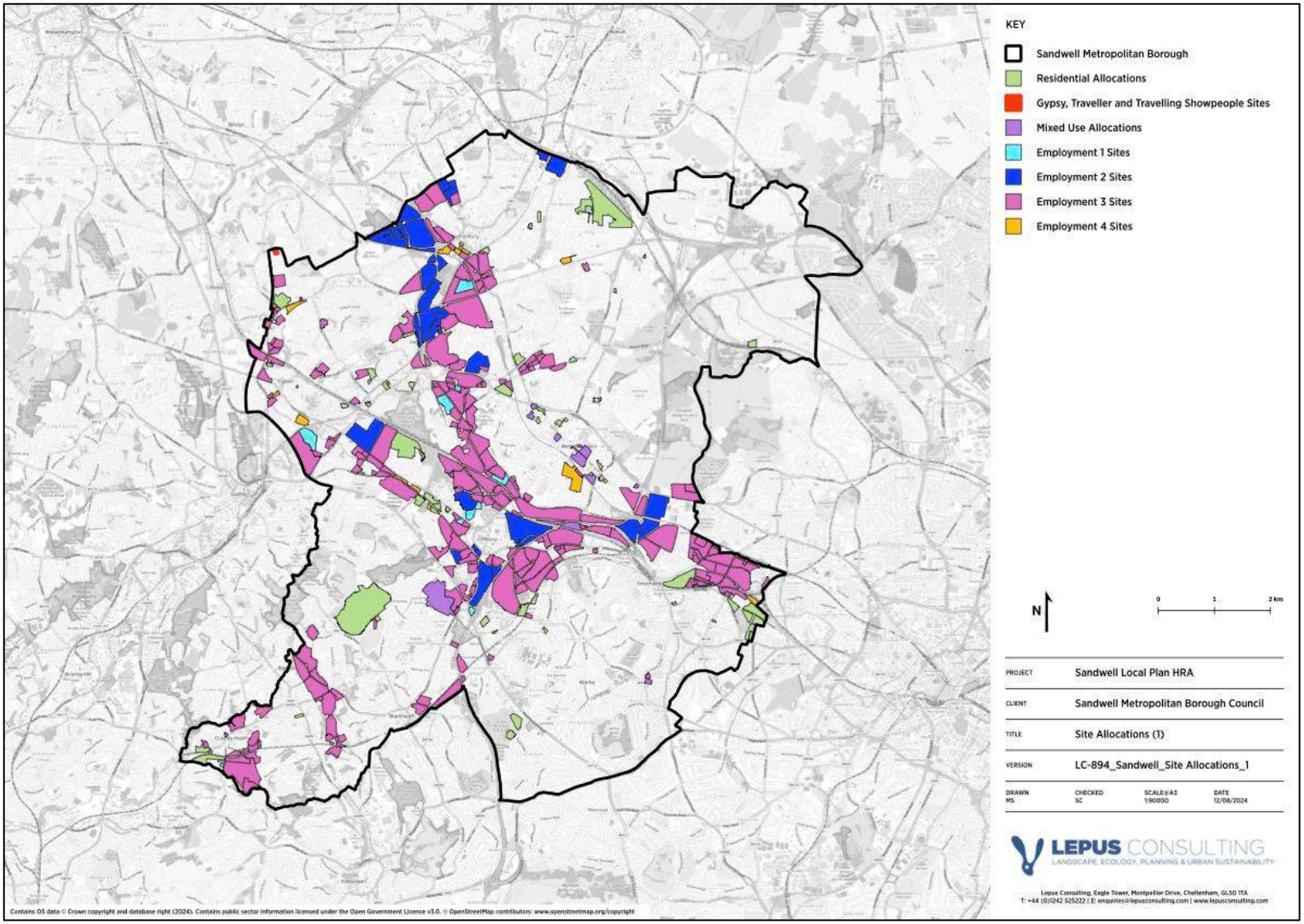

Figure D.1: SLP Site Allocations

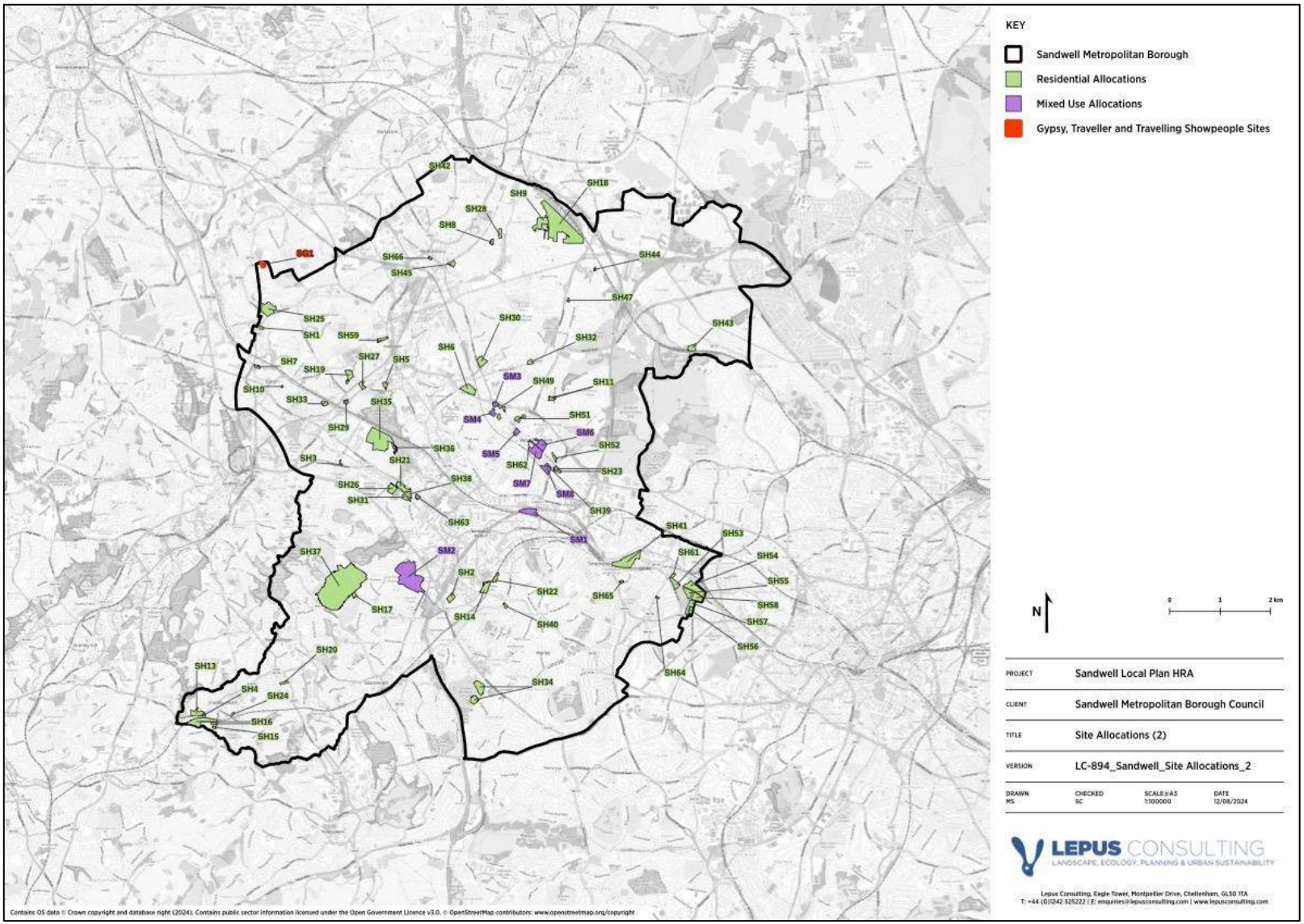

Figure D.2: SLP Site Allocations – Residential Allocations, Mixed Use Allocations, Gypsy, Traveller and Travelling Showpeople Allocations

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

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