Habitats Regulations Assessment: Stage 1: Screening Report

Solihull Draft Local Plan

Regulation 19

Solihull Metropolitan Borough Council
Planning Policy Team

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1. Introduction

Solihull Local Plan

1.1 The current Solihull Local Plan was adopted in December 2013 and covers the period 2011 to 2028. Following a High Court Challenge, the Council commenced work on a Local Plan Review in 2015, and after three rounds of consultation, a Draft Submission Plan was published for consultation in late 2020. It was subsequently submitted for independent examination in May 2021. During the course of the examination significant changes were made to the national planning policy landscape, which impacted on the examination process. Eventually, the Inspectors recommended that the plan be withdrawn, which took place in October 2024.

1.2 The Council commenced work on an Issues and Options Plan in 2025, which was consulted on in early 2026. Originally, the Council had set out to prepare the new Plan under the newly proposed planning system. However, the Council were urged by MHCLG to not delay and to submit a plan under the 'legacy system' by 31st December 2026.[1]

1.3 In response to the Minister the Council indicated "*we will proceed with the forthcoming consultation and make necessary preparations ready to publish a Regulation 19 later in the year, but we do have to recognise that whilst we work towards this aim, we cannot be certain it will be met, despite best efforts*." Since the exchange of letters with the Minister, officials from MHCLG have been in regular contact with Council officers in order to monitor progress on the likely publication of a Regulation 19 plan.

1.4 This Regulation 19 Solihull Draft Local Plan[2] is the subject of this Habitat Regulations Assessment: Stage 1 Screening Report.

HRA Legislation

1.5 Habitats Regulations Assessment (HRA) is undertaken under Regulation 105 of the Conservation of Habitats and Species Regulations 2017, as amended. Regulation 105 specifically addresses land-use plans[3].

1.6 The Regulations serve to transpose two European Directives, the Birds Directive and the Habitats Directive into domestic law. An amended and updated version remains in force in each of the UK nations, following the departure of the UK from the European Union.

1.7 The Regulations play an important role in protecting sites of international importance for wildlife, known as 'Habitats Sites'.[4] These are:

[1] 11th December 2025 - The Minister for Housing and Planning wrote to the Council expressing his disappointment that the Council was not seeking to bring a plan forward under the legacy system: https://www.solihull.gov.uk/sites/default/files/2026-01/Minister-of-State-for-Housing-Planning-Letter-SMBC.pdf

[2] https://democracy.solihull.gov.uk/documents/s137670/Appendix%20A%20-%20Draft%20Submission%20Plan.pdf

[3] https://www.legislation.gov.uk/uksi/2017/1012/regulation/105

[4] Previously known also as 'European Sites' or referred to 'Natura 2000 sites', along with SPAs and SACs across Europe as a whole.

- Special Protection Areas (SPAs) – a site/area protected due to its internationally important wild bird population.
- Special Areas for Conservation – a site/area protected for its international importance for other wildlife.
- Ramsar Wetland Sites – wetland sites of international importance designated under the Ramsar Convention.

1.8 N.B. Government Guidance on HRA[5] states also that any proposals affecting the following sites would also require an HRA because these are protected by government policy:

- proposed SACs
- potential SPAs
- proposed Ramsar sites
- areas secured as sites compensating for damage to a European site

1.9 The Regulations serve to transpose two European Directives, the Birds Directive and the Habitats Directive into domestic law. An amended and updated version remains in force in each of the UK nations, following the departure of the UK from the European Union.

1.10 Certain case law is also important to bear in mind when carrying out an HRA. In 2018, the 'People Over Wind' European Court of Justice (ECJ) ruling[6] clarified that when making screening decisions for the purposes of deciding whether an appropriate assessment is required, competent authorities cannot take into account any mitigation measures. This means that mitigation measures should not be taken into account when forming a view on likely significant effects. The Government's guidance states that this a departure from the previous approach established by domestic case law, which had permitted mitigation measures to be taken into account, and potentially offset any likely significant effects at screening stage[7].

HRA Purpose

1.11 The Government's PPG includes Guidance on the use of Habitats Regulations Assessment:[8]

"All plans and projects (including planning applications) which are not directly connected with, or necessary for, the conservation management of a habitat site, require consideration of whether the plan or project is likely to have significant effects on that [Habitats] site. This consideration – typically referred to as the 'Habitats Regulations Assessment screening' – should take into account the potential effects both of the plan/project itself and in combination with other plans or projects."

1.12 Under the Habitats Regulations, the competent authority—Solihull MBC or the Secretary of State—may agree to a plan or project that is likely to have a significant effect on a Habitats site only after establishing that it will not adversely affect the integrity of that site, either

[5] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site
[6] https://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN
[7] Paragraph: 005 Reference ID: 65-005-20190722
[8] https://www.gov.uk/guidance/appropriate-assessment

alone or in combination with other plans and projects. Where adverse effects cannot be ruled out, the plan or project may proceed only where there are no alternative solutions and there are imperative reasons of overriding public interest.

1.13 In such cases, appropriate compensatory measures must be secured to protect the overall coherence of the Habitats Sites network.

1.14 N.B. 'Appropriate' with regards to HRA 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.

Previous HRAs

1.15 This assessment will build on the findings of the previous Habitats Regulations Screening exercises[9] that were carried out for the now withdrawn draft Local Plan 2020 in 2018 and 2020 by Middlemarch Environmental Ltd.

1.16 A number of Neighbourhood Development Plans have been made in the Borough, but none of these have been subject to separate HRA.

Report Structure

1.17 The report is structured as

1) Introduction – Background to Solihull Local Plan process; HRA legislation and purpose; relationship to previous HRAs
2) Methodology – components of HRA assessment
3) Relevant Habitats Sites – identifies relevant Habitats sites for screening and justification
4) Policy Screening – identifies which policies and proposals would potentially impact the conservation objectives and status of qualifying features of the Habitats Sites
5) Determination of likely significant effects – Examines how each of the Habitats Sites could be affected by the policies and proposals in the Solihull Draft Local Plan. These draw from Appendix 1 rather than duplicate all relevant material in the main text.
6) Conclusions and recommendations – Draws conclusions on the likely significant effects and whether the Stage 1 screening should proceed to Stage 2.

Appendix 1 – Summary of Conservation Objectives and Key Vulnerabilities and Actions of each of the Habitats Sites

Appendix 2 – Map showing the principal allocations in the Draft Local Plan

Appendix 3 – Maps of the relevant Habitats Sites showing boundaries in OS based maps.

[9] 2018 – https://www.solihull.gov.uk/sites/default/files/2020-12/HRA_Screening_Report_April_2018.pdf
2020 - https://www.solihull.gov.uk/sites/default/files/2020-12/HRA_Screening_Report_Sep_2020.pdf

2. Methodology

Introduction

2.1 This HRA follows the Government's guidance and legislation, in particular the 'Habitats regulations assessments: protecting a European Site' (Gov.uk, 2023[10]) and the Planning Practice Guidance on Appropriate Assessment (Gov.uk, 2019[11]).

2.2 The guidance sets out 4 main stages to a Habitats Regulations Assessment:

Stage 1 – Screening – to determine if a plan would have a likely significant effect on a Habitats Sites, either alone or in-combination, taking no account of mitigation measures

Stage 2 – Appropriate Assessment – Impact assessment and evaluation of a plan or project's effects against the conservation objectives of a Habitats Site. If adverse impacts on site integrity are identified, then consideration can be given to mitigation.

Stage 3 -Derogations – Investigate whether alternative solutions would avoid or have a lesser effect on a Habitats Site.

Stage 4 – Consider imperative reasons of over-riding public interest (IROPI)

Precautionary Principle

2.3 The first stage of HRA is to examine the likelihood of any significant effects arising from the policies and proposals within the draft Local Plan, either alone or in combination. If following this initial assessment it is concluded that there are potential likely significant effects (with or without mitigation), then the competent authority must proceed to Stage 2, and carry out an Appropriate Assessment.

2.4 It can be difficult to ascertain the extent of likely effects at a Local Plan, due to the nature of proposals, which are often at a preliminary stage. It is therefore best practice to assume a precautionary approach in analysing the data. This is also in accordance with the court ruling on 'People Over Wind' case.

Geographical Scope

2.5 This HRA builds on the work of the previous 2020 HRA carried out for the now withdrawn Local Plan, and assesses whether the geographical scope of the relevant Habitats Sites still applies.

Evidence base

2.6 The Screening report relies on information pertaining to the Habitats Sites from the statutory bodies, e.g. Conservation Objectives, Site Improvement Plans, JNCC Standard Form Data, NRW Core Management Plans.

[10] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site
[11] https://www.gov.uk/guidance/appropriate-assessment

2.7 Supplementary evidence is also drawn from Action Plans and key strategies and plans from other relevant bodies such the Environment Agency and Severn Trent Water. The assessment also draws on the wider evidence base supporting the Draft Local Plan.

2.8 This evidence has also been used to define impact pathways and functional linkages between the policies and proposals in the Draft Local Plan and relevant Habitats Sites.

Maps and boundaries

2.9 Site boundaries and GIS information have been taken from the MAGIC website as well as up-to-date shapefile data available on the JNCC website.

3. Relevant Habitats Sites

Identification of relevant Habitats Sites

3.1 The 2020 HRA for the Local Plan Review identified 12 Habitats Sites for assessment that could potentially be impacted by policies or plans in the Draft Local Plan. These are:

- Cannock Chase SAC
- Cannock Extension Canal SAC
- Elan Valley Woodlands SAC
- Elenydd SAC
- Elenydd – Mallean SPA
- Ensor's Pool SAC
- Fens Pool SAC
- Humber Estuary Ramsar
- Humber Estuary SAC
- Humber Flats, Marshes and Coast SPA
- River Mease SAC
- River Wye SAC

3.2 The following table shows the relevant distances from the Solihull Borough boundary in ascending order:

Habitats Site	Distance from Solihull boundary (km)
Ensors Pool SAC	9.0
Cannock Extension Canal SAC	18.8
Fens Pool SAC	19.6
River Mease SAC	25.6
Cannock Chase SAC	28.3
River Wye SAC	81
Elenydd – Mallean SPA	111
Elan Valley Woodlands SAC	116.4
Elenydd SAC	128
Humber Estuary SAC	137
Humber Estuary SPA	143
Humber Estuary Ramsar	166

Sites greater than 50km from Solihull boundary

3.3 In the 2020 HRA assessment, 2 of the above Habitat Sites (Elan Valley Woodlands SAC and Elenydd-Mallean SPA) were screened out. This was due to no identified functional linkages with between the key issues affecting favourable conservation status of the Sites and the policies and plans within Solihull Borough boundary:

Elenydd – Mallean SPA – With an intervening distance of 111km, there are no identified functional linkages between key issues affecting the favourable conservation status of the SPA.

Elan Valley Woodlands SAC – There are no identified functional linkages between the issues identified in the Core Management Plan for the Elan Valley Woodlands SAC, i.e. invasive species, forestry management, inappropriate scrub control and overgrazing and Solihull MBC.

Given the distance of these sites, the key vulnerabilities and outcome of the 2020 HRA, these sites have been screened out from further assessment in this HRA.

The River Wye SAC and Elenydd SAC have potential functional linkages and impact pathways with Solihull Borough as water supply in Solihull is provided by Severn Trent Water, whose Water Resource Management Area includes linkages with the Elan Vally Reservoirs.

The Humber Estuary SAC; Humber Estuary SPA and; Humber Estuary Ramsar have potential functional linkages and impact pathways with Solihull Borough as the borough is currently served by several waste water treatment works (WwTW) each of which are located in the borough and discharge into the River Blythe which is connected to the Humber Estuary via the Rivers Tame and Trent.

4. Policy Screening

Introduction

4.1 The current local plan, the "Solihull Local Plan" (SLP), was adopted in December 2013 and covers the period 2011 to 2028.

4.2 The Council commenced a Local Plan Review in 2015, that was subject to a series of stages. These included a Scope, Issues and Options consultation in November 2015, further consultations on draft versions in November 2016 and January 2019, culminating in a Draft Submission Plan being published for consultation in October 2020.

4.3 The Draft Plan was subsequently submitted for examination in May 2021. The Plan was subject to a protracted examination period, caused in part by changes to national policy and a small number of key issues regarding housing land supply. The Inspectors overseeing the examination recommended the Plan be withdrawn in September 2024, which was confirmed through a meeting of the Full Council the following month.

4.4 Despite its withdrawal much was achieved through the examination of the draft Plan, including:

- The inspector confirmed the duty to cooperate had been complied with;
- The Spatial Strategy was deemed acceptable in principle;
- The housing requirement, including its basis as a stepped requirement, was agreed in principle; and
- The proposed residential site allocations were confirmed as acceptable in principle.

Proposals Screening

4.5 The Regulation 19 Solihull Draft Local Plan includes 15 residential site allocations, 5 broad locations around rail stations, 2 employment allocations and 1 large mixed use allocation at Arden Cross, future home to the HS2 Interchange station. The geographic location of these sites are included on the draft Policies Map[12].

4.6 The objectively assessed housing need for the Borough has been determined by the Local Housing Need figure (1,286 dwellings per annum) and further work as part of the Housing and Economic Development Needs Assessment (HEDNA) by Iceni. The level of housing growth is therefore anticipated to be 23,091 dwellings for the period 2026-2043 (1358 p.a.) This is a significant step change compared to the previous Local Plan Review figure of 15,029 for the period 2020-2036 (939 dwellings p.a.).[13]

4.7 The Precautionary Principle requires that the maximum level of harm be assumed when assessing likely impacts on European Habitats Sites. It is therefore assumed that developments will build out according to the highest rate of the stepped trajectory.

[12] https://democracy.solihull.gov.uk/documents/s137671/Appendix%20B%20-%20Draft%20Local%20Plan%20Policies%20Map.pdf

[13] N.B. The rate of housing delivery in the Borough has been declining since 2020, with an average of 518 dpa – peaking at 828 in 2021, and only 177 in 2026.

4.8 The level of growth is also subject to an SEA/Sustainability Appraisal.

Policies Screening

4.9 The Regulation 19 Solihull Draft Local Plan includes 25 chapters outlining a vision, challenges, spatial strategy and 28 development management policies and 16 site policies designed to achieve sustainable growth with the Borough for the period 2026-2043.

4.10 Each chapter and policy of the Draft Local Plan have been subject to an initial screening to determine whether they would have impacts either alone or in combination on the favourable conservation status of Habitats Sites. The findings of the initial screening are summarised below.

Table 4.1 Summary of Screening Chapters and General Policies in Draft Local Plan

Chapter	Policies	Screened in/out
Chapter 1: Introduction,	N/A	Screened out – Administrative text
Chapter 2: National Context	N/A	Screened out – Administrative text
Chapter 3: Scope	N/A	Screened out – Administrative text
Chapter 4: Borough Portrait	N/A	Screened out – Administrative text
Chapter 5: Challenges	N/A	Screened out – Administrative text
Chapter 6: Vision	N/A	Screened out – Administrative text
Chapter 7: Spatial Strategy	SMBC/SS1: Solihull Settlement Hierarchy	Screened out – Policy listing ranking of settlements within the Borough
	SMBC/SS2: Protection of Vulnerable Gaps	Screened out – Policy identifying areas to be potentially safeguarded from development
Chapter 8: Delivering a Sufficient Supply of Homes	SMBC/HO1: Provision of Land for Housing	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/HO2: Broad Locations	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/HO3: Affordable Housing	Screened out – Policy outlining criteria for development types
	SMBC/HO4: Self and Custom House Building	Screened out – Policy outlining criteria for development types
	SMBC/HO5: Housing for Older and Disabled People	Screened out – Policy outlining criteria for development types
	SMBC/HO6: Housing Mix – Market Housing	Screened out – Policy outlining criteria for development types
	SMBC/HO7: Homes in Multiple Occupation	Screened out – Policy outlining criteria for development types

Chapter 8: Delivering a Sufficient Supply of Homes	SMBC/HO8: Residential Accommodation for Looked After Children	Screened out – Policy outlining criteria for development types
	SMBC/HO9: Provision of Accommodation for Gypsies and Travellers	Screened out – Small scale development only
	SMBC/HO10: Safeguarding Gypsy and Traveller Sites	Screened out – Does not result in a change of development
Chapter 9: Delivering a Strong, Effective Economy	SMBC/E1: UK Central Solihull Hub Area	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/E2: Arden Cross	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/E3: National Exhibition Centre	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/E4: Birmingham Airport	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/E5: Jaguar Land Rover	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/E6: Birmingham Business Park	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
	SMBC/E7: Provision of Land for Employment	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
Chapter 10: Protecting Green Belt Land	SMBC/GB1: Green Belt Boundaries	Screened out – Policy describing boundaries
	SMBC/GB2: Limited Infilling in Villages lying in the Green Belt	Screened out – Small scale development only
	SMBC/GB3: Insetting Settlements from the Green Belt	Screened out – Policy describing boundaries
Chapter 11: Promoting Sustainable Travel	SMBC/TM1: Rapid Transit	Screened out – Policy will increase public transport offer

Chapter 12: Promoting Healthy Communities	SMBC/HC1: Health and Wellbeing	Screened out – Policy outlining criteria for development types
	SMBC/HC2: Health Impact Assessments	Screened out – Policy outlining criteria for development types
Chapter 13: Conserving and Enhancing the Natural Environment	SMBC/N1: Local Wildlife Sites	Screened out – Environment protection policy
Chapter 14: Conserving and Enhancing the Historic Environment	SMBC/HE1: Assessing Effects on Heritage Assets	Screened out – Policy outlining criteria for development types
Chapter 15: Waste Management	SMBC/WM1: Waste Management Facilities	Possible significant effect on Habitats sites as a result of increased development and associated infrastructure, traffic impacts etc.
Chapter 16: Delivery	SMBC/D1: Comprehensive Master planning for Strategic and Major Development	Screened out – Policy outlining criteria for development types
	SMBC/D2: Infrastructure Provision and Developer Contributions	Screened out – Policy outlining criteria for development types
Chapter 17: Balsall Common	Site Policies (BC1, BC3, BC5, BC6, BC7)	See SMBC HO1 & HO2
Chapter 18: Blythe	Site Policies (BL1, BL3)	See SMBC HO1 & HO2
Chapter 19: Hampton in Arden	Site Policies (HA1)	See SMBC HO1
Chapter 20: Hockley Heath	N/A	See SMBC HO1
Chapter 21: Knowle, Dorridge & Bentley Heath	Site Policies (KN1A, KN1B, KN2)	See SMBC HO1 & HO2
Chapter 22: Meriden	Site Policy (ME1)	See SMBC HO1
Chapter 23: North of the Borough	N/A	See SMBC HO1
Chapter 24: Solihull Town Centre & Mature Suburbs	Site Policies (SO1, SO2)	See SMBC HO1
Chapter 25: UK Central	Site Policies (UK1 and UK2)	See SMBC HO1 and SMBC E1

4.11 Table 4.2 below summarises the potential environmental effects of implementing the Draft Local Plan policies and proposals that require more detailed assessment against each Habitats Site in Chapter 5.

4.12 The potential environmental impacts to be assessed are:

- Air Quality (atmospheric pollution);
- Water quantity (abstraction)
- Water quality (pollution from wastewater management)

- Recreational disturbance

4.13 The following potential impacts have been ruled out before further consideration:

- Physical damage/loss (on-site) - none of the Habitats sites are within or close to the Solihull boundaries;
- Noise, vibration and light pollution - none of the sites will be within 500m of a Habitats site (nearest is 9km away)
- Non-toxic contaminants (e.g. dust) - none of the sites will be within 500m of a Habitats site (nearest is 9km away)
- Species movements – although proposed development may impact/alter species movements across and in and out of the Borough, the species movements of mobile Qualifying features on the Habitats sites are not considered to be of close enough proximity to be affected.

Table 4.2 – Summary of Potential Impacts on Qualifying Features arising from Draft Local Plan policies and proposals

Policy	Description	Potential Impacts on Qualifying Features			
		Air Quality (atmospheric pollution)	Water quantity (abstraction)	Water quality (diffuse pollution)	Recreational disturbance
SMBC/HO1: Provision of Land for Housing	Sets housing target as 23,091 dwellings for plan period 2026-2043. Identifies 4,877 dwellings to be provided on residential site allocations and 8,219 dwellings on broad locations.	Yes – The substantial residential development enabled by the policy would increase the Borough's population, with potential associated increases in household and vehicle emissions, particularly in the short to medium term.	Yes – Future housing growth may increase domestic water demand and the associated need for water abstraction.	Yes – Future housing allocations may increase domestic wastewater flows and the associated demand for treatment and management capacity.	Yes – The population growth arising from future housing allocations may increase recreational pressure on accessible green spaces within the Borough and surrounding areas.
SMBC/HO2: Broad Locations	Establishes principle for Broad Locations for growth and that Green Belt boundaries will be amended through future plans.	As above	As above	As above	As above
SMBC/E1: UK Central Solihull Hub Area	Supports future commercial and residential development in wider UKC Hub Area (see E2-E6). Highlighted as regionally important economic assets	Yes – The policy supports commercial (and residential) growth at the UK Central Hub, potentially resulting in increased traffic volumes and associated atmospheric emissions.	Yes – Growth in commercial (and residential) activity may increase water demand and the associated need for abstraction.	Yes – Growth in commercial (and residential) activity may increase wastewater flows and the associated demand for treatment and management capacity.	
SMBC/E2: Arden Cross	Supports mixed use proposals at Arden Cross and HS2 Interchange station.	Yes – The policy supports commercial (and residential) growth at the Arden Cross, potentially	Yes – Growth in commercial (and residential) activity may increase water demand	Yes – Growth in commercial (and residential) activity may increase wastewater flows	

	Potential for 400K to 600K of commercial floorspace, Health Tech campus and 1600 homes within plan period.	resulting in increased traffic volumes and associated atmospheric emissions.	and the associated need for abstraction.	and the associated demand for treatment and management capacity.	
SMBC/E3: National Exhibition Centre	Supports economic growth at NEC with particular focus on future commercial development and wide range of major leisure and entertainment uses.	Yes – The policy supports commercial growth at the NEC, potentially resulting in increased traffic volumes and associated atmospheric emissions.	Yes – Growth in commercial activity may increase water demand and the associated need for abstraction.	Yes – Growth in commercial activity may increase wastewater flows and the associated demand for treatment and management capacity.	
SMBC/E4: Birmingham Airport	Supports continued sustainable growth and development at Birmingham Airport (7th largest in country) and range of ancillary functions.	Yes – The policy supports commercial growth at Birmingham Airport, potentially resulting in increased traffic volumes and associated atmospheric emissions.	Yes – Growth in commercial activity may increase water demand and the associated need for abstraction.	Yes – Growth in commercial activity may increase wastewater flows and the associated demand for treatment and management capacity.	
SMBC/E5: Jaguar Land Rover	Support growth at JLR and future competitivity.	Yes – The policy supports commercial growth at Jaguar Land Rover, potentially resulting in increased traffic volumes and associated atmospheric emissions.	Yes – Growth in commercial activity may increase water demand and the associated need for abstraction.	Yes – Growth in commercial activity may increase wastewater flows and the associated demand for treatment and management capacity.	
SMBC/E6: Birmingham Business Park	Support future re-developments at Birmingham Business Park to continue its role as a high quality business location.	Yes – The policy supports commercial growth at Birmingham Business Park, potentially resulting in increased traffic volumes	Yes – Growth in commercial activity may increase water demand and the associated need for abstraction.	Yes – Growth in commercial activity may increase wastewater flows and the associated demand for treatment and management capacity.	

		and associated atmospheric emissions.			
SMBC/E7: Provision of Land for Employment	Identifies up to 60.1ha (gross) of industrial and warehousing/logistics land, and 6.8ha (gross) of office land. These will be mostly accommodated at Arden Cross, Damson Parkway and NEC.	Yes – The policy allocates land for commercial growth in the Borough, potentially resulting in increased traffic volumes and associated atmospheric emissions.	Yes – Growth in commercial activity may increase water demand and the associated need for abstraction.	Yes – Growth in commercial activity may increase wastewater flows and the associated demand for treatment and management capacity.	
SMBC/WM1: Waste Management Facilities	Support for new waste management facilities to meet Borough's needs – should be managed at highest practicable level of waste hierarchy and contribute to circular economy.	Yes – The policy establishes criteria for locating future waste management facilities, which may increase commercial activity, traffic movements and associated vehicle and industrial emissions.		Yes – Depending on their location and operational requirements, future waste management facilities may increase wastewater flows and the associated demand for treatment capacity.	

5. Determination of Likely Significant Effects

5.1 This Section examines whether the identified potential environment effects of the Draft Solihull Local Plan will have any likely significant adverse effects on the 10 Habitats sites that have potential impact pathways and functional linkages to the Solihull Metropolitan Borough area.

Table 5.1 Habitats Sites to be considered for likely significant effects

Habitats Site	Distance from Solihull boundary (km)
Ensors Pool SAC	9.0
Cannock Extension Canal SAC	18.8
Fens Pool SAC	19.6
River Mease SAC	25.6
Cannock Chase SAC	28.3
River Wye SAC	81
Elenydd SAC	128
Humber Estuary SAC	137
Humber Estuary SPA	143
Humber Estuary Ramsar	166

Ensor's Pool

5.2 Appendix 1 highlights that favourable conservation status of the Ensor's Pool SAC is vulnerable to the following key issues:

- Change in species composition

5.3 Extensive surveys were undertaken in 2014 and 2015, however, these failed to detect the qualifying feature, white-clawed crayfish at Ensor's Pool SAC. The cause for any reduction in population / absence remains unclear.

5.4 The more recent Warwickshire Local Biodiversity Action Plan[14], updated in 2022, states that it is unlikely that crayfish remain present, although complete absence cannot be demonstrated because there is no agreed level of survey effort that conclusively proves absence. Nevertheless, white-clawed crayfish remains the SAC's qualifying feature and the site must continue to be assessed against its conservation objectives unless and until its designation is formally amended.

5.5 The main actions from the Site Improvement Plan are to maintain the site's suitability for a white clawed crayfish population.

Water abstraction

5.6 Both Solihull MBC and Ensor's Pool are located within the Tame, Anker and Mease Catchment area. As last reported in the 2020 HRA, water abstractions in this catchment are managed by the Environment Agency through the Tame, Anker and Mease Catchment Abstraction Management Strategy (CAMS)[15].

5.7 Ensor's Pool is identified in the CAMS as one of two SACs in the catchment area (along with River Mease SAC), which are afforded high protection. "*We will consider the impact of all new abstraction applications on these sites. We may need more detailed supporting information when a licence application could impact on a designated conservation site. A Habitats Regulations Assessment may be required*."[16]

5.8 In view of the Environment Agency's abstraction licensing controls, water abstraction associated with the Solihull Local Plan Review policies and proposals is unlikely to affect species composition within Ensor's Pool SAC.

Wastewater Management

5.9 The 2020 HRA referred to the Joint Warwickshire Partnership Water Cycle Study caried out by Aecom in 2016. At the time, the study consulted the Environment Agency about potential discharges into Ensor's Pool SAC, which reported that an investigation was carried out into the main inputs to the pool. It was discovered that there are no permitted discharges and that the SAC is predominantly fed via land drains from a farm. As such, there is no connection between wastewater treatment in the study area and this [Ensor's Pool] SAC.

5.10 This finding has not been contradicted by the more recent Coventry and Warwickshire Water Cycle Study from 2024[17].

[14] https://www.warwickshirewildlifetrust.org.uk/sites/default/files/2022-05/Whiteclawed%20Crayfish.%20April%202022..pdf
[15] 2013 (last updated 2022): https://www.gov.uk/government/publications/cams-tame-anker-and-mease-abstraction-licensing-strategy
[16] Ibid p.30
[17] https://www.northwarks.gov.uk/downloads/file/3821/north-warwickshire-local-plan-2026-hra-report-reg-18-

5.11 Given the separation distance from Solihull Borough, the lack of an identified hydrological pathway, and the intervening land uses between the Borough and Ensor's Pool SAC, likely significant effects on the SAC arising from wastewater management associated with the Draft Local Plan can be ruled out.

Cannock Extension Canal SAC

5.12 Appendix 1 highlights that favourable conservation status of the Cannock Chase Extension Canal SAC is vulnerable to the following key issues:

- Water pollution;
- Overgrazing;
- Invasive species;
- Air pollution.

Water Pollution

5.13 The Site Improvement Plan for Cannock Extension Canal SAC outlines that the SAC has previously been vulnerable to historic sediment loads, which have since been resolved.

5.14 Cannock Extension Canal SAC lies approximately 18.8 km north-west of Solihull Metropolitan Borough and is separated from the Borough by the urban areas of Birmingham and Walsall. Land uses, transport infrastructure and canal moorings within, or in the vicinity of, the SAC that may require investigation as potential sources of water pollution are located outside the administrative area of Solihull Metropolitan Borough. No hydrological or other pathways linking sources of water pollution within Solihull Metropolitan Borough to the SAC have been identified. On this basis, the policies and proposals of the Draft Local Plan are not expected to affect water quality within Cannock Extension Canal SAC or influence any associated remediation or management measures.

Overgrazing and Invasive species

5.15 There are no identified linkages between overgrazing pressure from Canada geese at the Cannock Extension Canal SAC and Solihull Borough.

5.16 There are no identified linkages or impact pathways between the case or spread of invasive non-native species in the Cannock Extension Canal SAC and Solihull Borough.

5.17 The policies and proposals of the Solihull Draft Local Plan are not expected to contribute to overgrazing within the SAC, the introduction or spread of non-native invasive species, or any associated management and remedial measures implemented to address these pressures.

Air Pollution

5.18 The Site Improvement Plan for the Cannock Extension Canal SAC identifies that the site exceeds its critical load with regards to nitrogen deposition and outlines that a Site Nitrogen Action Plan should be produced to control, reduce and ameliorate atmospheric nitrogen impacts.

5.19 An ‘Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell, and Dudley’ was produced in 2024. The assessment models the air quality impact of additional vehicle movements generated by Local Plans of Black Country

and Southern Staffordshire Councils on Habitats sites, including Cannock Extension Canal SAC.[18]

5.20 The dispersion modelling study for the period 2022-2042 has identified that most European sites, including Cannock Extension Canal SAC, are predicted to experience in-combination impacts above the 1% significance screening criterion for NH3 concentrations, N deposition rates, and acid (N) deposition rates. In some cases, the modelled areas of the respective sites exceeding the 1% criterion are extensive. As a result, this study concludes that a further Appropriate Assessment of the Partnership Authorities' emerging Local Plans, in terms of in-combination impacts, is necessary and should be conducted by a suitably qualified ecologist. The full and detailed results of this assessment have been provided to the Partnership Authorities.

5.21 In terms of expected nitrogen deposition from the Draft Solihull Local Plan, additional traffic is anticipated as a result of housing and commercial growth in the Plan.

5.22 Natural England has updated its standing advice on 'Air Pollution and development: advice for local authorities'[19] for protected sites, including Habitats Sites. With regard to road traffic, the advice is to check how are the protected site is from the edge of any part of the existing road network where the proposal could create additional traffic. If all affected roads are further than 200m from the protected site, then 'there is no likely significant effect (habitats sites) on the site from air pollution.

5.23 Reference to mapped sources (MAGIC) indicates that most of the SAC is located beyond the zone of influence of major roads, with only the northern extremity situated within 200 m of the A5. Given the substantial distance between the SAC and Solihull Metropolitan Borough, together with the intervening transport network, any contribution from Local Plan-related traffic to flows on the A5 would be dispersed across the wider network and would not be expected to result in a measurable increase in NOx deposition within the SAC.

5.24 The NE Air Pollution standing advice also provides screening distances for Agricultural (Table 1) and Industrial Processes (Table 2). The furthest distance for consideration for Habitats sites is 10km, which is well within the distance of Solihull Borough from the SAC.

5.25 Therefore, the Draft Local Plan is not considered to make a significant contribution to long-range air pollution from vehicle movements or agricultural/industrial processes either alone or in-combination of different policies, during the plan period.

[18] https://www.cannockchasedc.gov.uk/sites/default/files/document-library/Assessment%20of%20Air%20Quality%20Impacts%20on%20European%20Sites%20-%20Air%20Quality%20Assessment%20Report%20(Oct%202024).pdf

[19] https://www.gov.uk/guidance/air-pollution-and-development-advice-for-local-authorities

Fens Pools SAC

5.26 Appendix 1 highlights that favourable conservation status of the Fens Pools SAC is vulnerable to the following key issues:

- Overgrazing;
- Inappropriate scrub control;
- Disease;
- Water pollution;
- Habitat fragmentation;

5.27 Of the above vulnerabilities, given the 19.6km distance from the Solihull boundary in a different local authority, the Solihull Draft Local Plan does not have identified linkages to the more site specific issues of:

- overgrazing by illicit stocking of tethered horses;
- inappropriate scrub control and subsequent habitat succession;
- the presence of invasive alpine habitat newts and associated Chytrid fungus; and
- the habitat fragmentation and genetic isolation of the GCN population.

Water pollution

5.28 Maintaining an adequate quantity and quality of water supply at the site is critical for the conservation objectives of the qualifying feature - Great Crested newts - to be met.

5.29 The main causes of direct pollution on site has been identified as fly-tipping and burning of abandoned cars, which will not be associated with Solihull Borough.

5.30 However, water abstraction practices and increases in air pollution could potentially result in a negative impacts on water quality.

5.31 Solihull is located in the Tame, Anker and Mease catchment area, whereas Fens Pools is situated within the adjacent Worcestershire Middle Severn catchment area. The Abstraction Licensing strategy for WMS affords high protection to Fens Pool SAC, and states that the Environment Agency have a duty to have regard to Natural England's advice when determining licence applications that may impact on a designated site.[20]

5.32 Having regard to the abstraction licence controls in place and the position of Fens Pools SAC outside the Solihull MBC catchment area, the policies and proposals of the Solihull Local Plan Review are not expected to result in effects on water quality or water quantity within the SAC.

5.33 In terms of air pollution impacts, the SAC lies beyond 200m from a major road. Based on the Natural England Air Pollution standing advice (see above), it is unlikely that the policies and proposals of the Draft Local Plan will affect the air quality or deposition of gaseous nitrogen on Fens Pool SAC.

[20] https://assets.publishing.service.gov.uk/media/62c672b1e90e077484133fe6/Worcestershire-Middle-Severn-abstraction-licensing-strategy.pdf

River Mease SAC

5.34 Appendix 1 highlights that favourable conservation status of the River Mease SAC is vulnerable to the following key issues:

- Water Pollution;
- Drainage;
- Inappropriate weirs dams and other structures;
- Invasive species;
- Siltation; and,
- Water abstraction.

5.35 Given the 25.6km distance of the River Mease SAC from the Solihull boundary, it is not considered that there are identified functional linkages with the following vulnerabilities, which will result in likely significant effects on the SAC:

- Inappropriate weirs, dams and other structures – these are localised to modification of the physical condition of the river and its embankments, resulting in reducing/removing fish movement and poor hydrological conditions.
- Invasive species –the spread of the non-native signal crayfish can have a devastating impact on native white-clawed crayfish populations. High impact species such as Japanese knotweed and Himalayan balsam have also been along the river. Although these species can be spread along watercourses, the control of invasive species will be more localised to the River Mease catchment.
- Siltation – excess siltation can be harmful to crayfish (obstructing gills), and cover the gravel bed and fine sand beds that the Bullhead and spined loach used for spawning habitat respectively. Excessive delivery of fine sediment from sources within the River Mease catchment or artificially enhanced river bank erosion, as well as algal growth from nutrient enrichment can lead to increased siltation in the river. These causes will mostly be localised e.g. agricultural run-off or damage to banks, and not functionally linked to Solihull.[21]

Water Pollution

5.36 The Site Improvement Plan (2014) for the River Mease SAC identified that elevated levels of phosphate were contributing to eutrophication and consequent increased algal growth and decline in abundance/diversity of characteristic plant and freshwater species from the SAC, including the qualifying features. Furthermore, high levels of ammonia had been detected in the headwaters of the river which may have an effect on juvenile recruitment of spined loach and bullhead.

5.37 The SIP states that a large proportion of the phosphate is associated with the high number of sewage treatment works (despite phosphate stripping being undertaken at several STWs through the Asset Management Plan), as well as more diffuse septic tank discharges.

[21] https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030258.pdf

5.38 Following persistently high levels of phosphorus concentrations withing the SAC's waterbodies, in 2022, Natural England informed relevant local authorities[22] in the River Mease SAC catchment that new development (comprising overnight accommodation) must demonstrate nutrient neutrality before permission can be granted.[23]

5.39 Severn Trent Water are working with Natural England and the Environment Agency to make improvements at the Packington and Measham STWs.

5.40 Severn Trent Water will delivering a project to transfer the treated wastewater out of catchment as part of the Water Industry National Environment Programme (WINEP), scheduled to be completed by March 2027. In addition, enhanced phosphate removal at several other STWs will also be delivered by Severn Trent to the 2030 deadline.[24]

5.41 The closest 'sub-area' of the River Mease SAC catchment is the 'source to Gilwiskaw-Brook' area. The boundary of this sub-area is over 21km in distance from the Solihull boundary, with large areas of agricultural land and small towns between the two. There is therefore no known relationship between Solihull borough and the River Mease water catchment; and Solihull is not included in the nutrient neutrality area for the SAC. Therefore, it is not deemed likely that there will be any significant impact on the water quality of the site as a result of the policies and proposals within the Regulation 19 Draft Local Plan.

Drainage

5.42 The Site Improvement Plan states that drains, field under drainage and other discharges (STWs and roads as a conduit) all cumulatively act to adversely affect the naturalised flow pattern within the catchment. As a consequence, the river appears more 'flashy' with water levels rising and falling with increased rapidity. This has negative impacts on both the qualifying habitats and critical ecological functions of other habitats that the qualifying species are reliant on. However, as with the water pollution section above, Solihull boundary's closest distance to a catchment sub-area is 21km in distance. As a result, it is deemed highly unlikely that there will be any change in drainage patters due to policies and proposals within the Regulation 19 Draft Local Plan.

Water Abstraction

5.43 Solihull borough is not within the operational River Mease SAC catchment, however, both areas lie within the wider 'Tame, Anker and Mease' catchment. Water abstractions within the wider catchment are managed through the Environment Agency's 'Tame, Anker and Mease Abstraction Licensing Strategy' (updated 2022)[25]. The strategy provides information on water resource availability and sets out the framework for regulating existing abstractions, and applications for new abstraction licences. The strategy identifies the River Mease SAC as a

[22] Letter to local authorities: https://www.nwleics.gov.uk/files/documents/natural_englands_advice_for_development_proposals_160322/Natural%20England%27s%20advice%20for%20development%20proposals%2016.03.22.pdf
[23] Evidence pack (updated 2024) with map of catchment: https://publications.naturalengland.org.uk/file/5857900506120192
[24] https://rivermease.co.uk/how-we-work/river-improvement-project/
[25] https://www.gov.uk/government/publications/cams-tame-anker-and-mease-abstraction-licensing-strategy

highly protected site, and confirms that the EA must take account of the requirements of the Habitats Regulations when determining abstraction licences. In view of these existing regulatory safeguards, and the Environment Agency's statutory duties under the Habitats Regulations, it is unlikely that policies and proposals arising from the Solihull Draft Local Plan would result in significant effects on the extent or distribution of qualifying habitats or the habitats supporting qualifying species through water abstraction.

Cannock Chase SAC

5.44 Appendix 1 highlights that the favourable conservation status of the Cannock Chase SAC is vulnerable to the following key issues:

- Recreational pressure
- Undergrazing;
- Drainage;
- Hydrological changes;
- Disease;
- Air pollution;
- Wildfire/arson; and,
- Invasive species.

5.45 Given the 28.3km distance of the Cannock Chase SAC from the Solihull boundary, it is not considered that there are identified linkages with the following vulnerabilities, which will result in likely significant effects on the SAC:

- Undergrazing and Disease –the spread of plant fungal disease *Phytophthora pseudosyringae* and its subsequent impact on conservation grazing impacts are more localised issues.
- Drainage – the Site Improvement Plan identifies that water supply to the wetland habitats requires further investigation, but these issues are localised.
- Hydrological changes – these are localised to the reduction in extent of the valley more habitat, and a change to more drier wetland vegetation at Sher Brook Valley.
- Wildfire/arson – there are currently no identified linkages between accidental and deliberate fires on Cannock Chase and any policies and proposals in the Solihull Draft Local Plan.
- Invasive species – the spread and control of a range of invasive species is more localised to neighbouring landowners and adjacent watercourses.

Air Pollution

5.46 An 'Assessment of Air Quality Impacts on European Sites in Staffordshire, Wolverhampton, Walsall, Sandwell, and Dudley' was produced in 2024. The assessment models the air quality impact of additional vehicle movements generated by Local Plans of Black Country and Southern Staffordshire Councils on Habitats sites, including Cannock Chase SAC.[26]

5.47 The study found that Background N deposition rates in both the baseline and future years are projected to exceed the respective lower critical loads.

[26] https://www.cannockchasedc.gov.uk/sites/default/files/document-library/Assessment%20of%20Air%20Quality%20Impacts%20on%20European%20Sites%20-%20Air%20Quality%20Assessment%20Report%20(Oct%202024).pdf

5.48 Furthermore, background acid (N) deposition at Cannock Chase SAC – the only European site screened into the assessment that is sensitive to acid deposition – is reported to exceed the lower critical load.

5.49 Review of mapped sources indicates that much of the SAC is located beyond the influence of major roads, although sections of the northern and southern areas lie within 200 m of the A513 and A460. Given the substantial distance between the SAC and the Solihull MBC boundary, together with the availability of alternative routes within the wider strategic road network, any increase in traffic associated with development within the borough is expected to be negligible and is therefore unlikely to result in a measurable increase in nitrogen deposition within the SAC.

Recreational pressure

5.50 This is not listed in the Site Improvement Plan specifically, but is a matter of consideration for the Cannock Chase SAC.

5.51 The Cannock Chase SAC partnership commissioned Footprint Ecology to review and provide information to update the strategic approach to mitigation for recreation impacts on the SAC following previous work done in 2017; i.e. "Cannock Chase SAC Planning Evidence Base Review Stage 2".[27]

5.52 The outcome of the original visitor survey in 2012 was to recommend a 15km zone of influence around the SAC, and this has been supported by more recent survey data from 2018. The results show that 75% of visitors come from 14.8km (short visits), whereas all visitors combined it was 15.3km.

5.53 The zone of influence has resulted in specific mitigation measures and implementation plans for the affected local authorities; (Cannock Chase District Council, South Staffordshire District Council, Lichfield District Council, Staffordshire Borough Council, East Staffordshire Borough Council, and Wolverhampton City Council).

5.54 Cannock Chase SAC is located approximately 28.3 km from Solihull Borough and is therefore well beyond the recognised zone of influence for recreation-related effects. Although the Draft Solihull Local Plan includes policies that support housing growth, numerous alternative recreational resources are available in closer proximity. There is a large network of parks and accessible natural greenspaces within the Borough with 21 Green Flag sites. Furthermore, there is a large National Nature Reserve at Sutton Park in Birmingham, and the Princethorpe Woodlands, such as Ryton Wood, in Warwickshire that are of closer proximity.

5.55 Having regard to these factors, a material increase in recreational pressure on Cannock Chase SAC arising from development within Solihull is not anticipated, and any residual effects are unlikely to exceed those already considered by the Footprint Ecology Stage 2 study on the SAC.

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27 https://www.staffordbc.gov.uk/sites/default/files/cme/DocMan1/Planning%20Policy/Further%20Information%20and%20Evidence/Habitats%20Regulation%20Assessment/Cannock-Chase-SAC-Planning-Evidence-Base-Report-Stage-2.pdf

5.56 The following Habitats Sites to be considered are all over 50km from the Solihull boundary (ranging from 81 to 166km).

5.57 Given the large spatial distance between the remaining Habitats sites and the Solihull boundary, and the types of polices and proposals with the Draft Local Plan, most of the identified vulnerabilities of the respective SACs will not impacted by the Plan.

5.58 The main functional linkages and impact pathways relate to water resource management, via abstraction, supply and/or wastewater management.

5.59 However, for the sake of completeness and avoidance of doubt, a summary of each of the key vulnerabilities as highlighted in Appendix 1 will be provided for each of the sites.

River Wye / Afon Gwy SAC

5.60 Appendix 1 highlights that the favourable conservation status of the River Wye SAC is vulnerable to the following key issues:

- Water Pollution;
- Physical modification;
- Invasive species;
- Hydrological changes;
- Forestry and woodland management;
- Fisheries: freshwater;
- Fisheries: fish stocking;
- Water abstraction;
- Public access/disturbance;
- Air pollution;
- Inappropriate scrub control;
- Undergrazing; and
- Transportation and service corridors.

5.61 It is not considered that there are identified functional linkages with the following vulnerabilities, which will result in likely significant effects on the SAC:

- Water Pollution – sediment and diffuse source pollution are identified as key issues affecting water quality in the SAC in the 2014 Site Improvement Plan. The more recent Defra River Wye Action Plan policy Paper[28] cites 2014 data, i.e. over 75% of sediment entered the River Wye from agricultural land and approximately 20% attributed to riverbank erosion. A Nutrient Management Plan[29] was published in 2014 and Defra have implemented measures through the Catchment Sensitive Farming (CSF) advice partnership, and introduced the Slurry Infrastructure Grant in 2022, to help reduce water pollution. These are all more localised impacts to the catchment that will not be affected by the Solihull Draft Local Plan.

[28] https://www.gov.uk/government/publications/river-wye-action-plan/river-wye-action-plan
[29] https://www.gov.uk/government/publications/nutrient-management-plan-river-wye

- Physical modification – the relatively near -natural river system in the SAC is vulnerable to small scale development along the watercourse, localised erosion and weirs along the River Lugg. These are localised to modification of the physical condition of the river and its embankments and not linked to the Solihull Draft Local Plan.
- Invasive species –the spread of the non-native signal crayfish can have a devastating impact on native white-clawed crayfish populations. High impact species such as Japanese knotweed, Himalayan balsam, Giant Hogweed and hybrids have been recorded through the catchment, and now also American skunk cabbage. Defra have provided funding in 2023 for the 'Ridge to River Landscape Recovery Project' to address invasive species control. Although these species can be spread along watercourses, the control of invasive species will be more localised to the River Wye catchment.
- Hydrological changes – the Site Improvement Plan identifies urban drainage, new development and poor siting of infrastructure as the main causes, along with bankside grazing and woody debris. These are all more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Forestry and woodland management - Clearfell/management of upland conifer plantations can lead to sediment and nitrate release which is a concern. However, 167 hectares of new woodland has been planted in the catchment between 2006 and 2022 creating habitat that counteracts erosion and acts as a barrier for overland nutrient run-off.[30] These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Fisheries: freshwater and fish stocking - These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Public access/disturbance - These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Inappropriate scrub control – affecting structure and composition of the transitional mire and quaking bog at Colwyn Brook Marshes. Risk of drying out and/or vegetation succession. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Undergrazing – as above.
- Transportation and service corridors – focus on works on Network Rail's assets that may affect the SAC's qualifying features. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.

Air Pollution

5.62 The Site Improvement Plan (2014) for the River Wye SAC identified that the site exceeds its critical load with regards to nitrogen deposition on the SAC's transition mire habitat within Wales. However, it is considered that any contribution from development in Solihull towards atmospheric nitrogen would be negligible given the large spatial distance between the two sites and lack of functional linkages between Solihull and the local road network surrounding the River Wye, in particular in Wales.

Water Abstraction

[30] https://www.gov.uk/government/publications/river-wye-action-plan/river-wye-action-plan

5.63 The Site Improvement Plan (2014) for the River Wye SAC identifies that the flow of the river does not follow near natural patterns because of the effects of the Elan Reservoirs and the releases made from the dams. At that time, work was underway to assess and agree a revised set of reservoir release rules that will require changes to the operating agreement so that impacts on hydro-morphology and ecology can be resolved. In addition, the SIP outlined that changes will be made to both river regulation and abstraction licences to ensure the best use of water to balance public water supply and environmental needs.

5.64 Water abstraction within the Wye catchment is managed through the Wye Abstraction Licensing Strategy[31] (ALS), jointly produced by Natural Resources Wales and the Environment Agency in 2015, and last updated in 2022.

5.65 The River Wye SAC is identified in ALS as a Habitats Sites, that is afforded very high protection:

"*Under the Habitats Regulations we have assessed the effects of all existing licensed abstraction in the Wye catchment to make sure these permitted activities do not have a likely significant effect on the River Wye SAC, the Wye SAC estuary and the River Severn Estuary SAC. A small number of licences were found to pose a risk, in-combination, on River Wye SAC site integrity and have been modified to remove this risk*.

The outcome of the Wye HDRoC process and recovery of water from existing licences have been integrated with the principles of CAMS in setting this 2015 licensing strategy, to ensure ongoing sustainable abstraction in the Wye catchment."

5.66 In view of these abstraction licence reviews and controls issued by Natural Resources Wales and the Environment Agency, it is unlikely that there will be any future water abstractions that will be permitted that would result in adverse effects on the River Wye SAC.

5.67 Water supplied to Solihull forms part of Severn Trent Water's wider water resource system, which includes strategic links with the Elan Valley reservoirs. Water released from the Elan Valley enters the River Wye system and contributes to downstream water resources used within the wider regional supply network.

5.68 Future water demand arising from growth within Solihull has been considered through Severn Trent Water's statutory Water Resources Management Plan 2024 (WRMP24)[32], which sets out how long-term demand will be balanced against available supplies while accounting for environmental obligations, climate change and population growth. The WRMP process is subject to environmental assessment and Habitats Regulations Assessment[33], ensuring that options for meeting future water demand are evaluated against potential effects on designated sites.

5.69 The HRA for the Severn Trent Water's WRMP24 states that:

"*For the River Wye SAC, Natural England will be carrying out a new, full condition assessment, including a flow assessment, which will provide additional information on the pressures impacting the River Wye SAC. Natural England have agreed that they will continue to engage with Severn Trent Water and Welsh Water and once the full condition assessment*

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[31] https://assets.publishing.service.gov.uk/media/61c1b069d3bf7f0559e1dce0/Wye_abstraction_licensing_strategy.pdf

[32] https://www.severntrent.com/about-us/our-plans/water-resources-management-plan/wrmp24-final-documents/

[33] https://www.severntrent.com/content/dam/wrmp24-documents-and-data-tables-st/final-WRMP24-HRA-Report.pdf

has been completed, to add the River Wye SAC to the PR29 WINEP, if appropriate (and hence no additional work is required as part of the 2024 WRMP HRA)."

Question to Natural England team - has this work been undertaken?

5.70 N.B. Severn Trent Water's WRMP24 was informed by the 2020 Draft Local Plan Review. Although the overall figures for the plan period will be higher for the Draft Local Plan (2026-2043), the housing stepped trajectory for the period 2020-2036 (accounting for past completions) is lower than as the 2020 Draft Plan, and for the period 2026 to 2036, these are similar:

Period	Draft Local Plan Review 2020[34]	Draft Local Plan 2026
2020-2026	5,106	3109
2026-2031	4955	3701
2031-2036	4955	6818
TOTAL	**15,016**	**12,661**

5.71 Severn Trent are currently being consulted as part of the refresh to the Borough's Water Cycle Study to support the Regulation 19 Local Plan.

5.72 It is therefore considered that the increased demand in water supply to facilitate the policies and proposals in the Draft Local Plan will have no significant effect on the River Wye SAC with regards to water abstraction, either alone or in combination with other plans.

[34] p.70 - https://www.solihull.gov.uk/sites/default/files/2020-12/Draft-Submission-Plan-Oct-2020%20(1).pdf

Elenydd SAC

5.73 Appendix 1 highlights that the favourable conservation status of the Elenydd SAC is vulnerable to the following key issues:

- Water clarity;
- Water quality;
- Hydrology;
- Air quality;
- Disturbance;
- Grazing pressure;
- Burning;
- Erosion;
- Peat erosion; and,
- Drainage.

5.74 It is not considered that there are identified functional linkages with the following vulnerabilities, which will result in likely significant effects on the SAC:

- Water Clarity – The qualifying species, floating water plantain, can only thrive on the lakebeds where there is good light penetration. Water clarity is also affected by sediment load. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Water quality – The Core Management Plan[35] states that a low nutrient status in the lakes should be maintained, to support rare water plants and qualifying habitat features, by avoiding heavy grazing, feeding of stock and use of fertilisers and pesticides where there is any potential for run-off into the lake. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Hydrology - The upland lakes are dependent on the maintenance of a fairly constant water level throughout the year. Most of the water plants are adapted to grow in a particular depth of water, although some, such as floating water plantain, can withstand greater fluctuations in water level. The water levels in the upland lakes should not be altered artificially. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Air Quality – It is likely that atmospheric pollution in the form of NOx and SOx, is having a damaging effect on the blanket bog vegetation, as well as contributing to acidification of lakes. However, it is considered that any contribution from development in Solihull towards atmospheric nitrogen would be negligible given the large spatial distance between the two sites and lack of functional linkages between Solihull and the local road network surrounding the Elenydd SAC in Wales.
- Grazing Pressure – heavy grazing pressure has affected the heath vegetation and blanket bog structure; however, some grazing is required to prevent scrub and coarse vegetation

[35] https://naturalresources.wales/media/671965/Elenydd_cSAC_core_English.pdf

in areas of Calaminarian grasslands. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.

- Burning - This type of oceanic blanket bog is adversely affected by burning, which leads to surface drying and the replacement of bog-mosses by purple moor-grass and common haircap. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Erosion and Peat erosion - There is a natural cycle of peat erosion and deposition, but the balance can be upset by burning, heavy grazing, pollution and vehicle damage. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Drainage – new drains could cause surface drying of blanket bog areas and peat erosion. The natural drainage pattern (including areas of impeded drainage) must not be altered and any old drainage ditches should not be maintained. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.

Humber Estuary SAC and Humber Estuary SPA

5.75 The Humber Estuary SAC and SPA are covered together in one Site Improvement Plan (2015)[36]. Appendix 1 highlights that the favourable conservation status of the Humber Estuary SAC and SPA is vulnerable to the following key issues:

- Water pollution;
- Coastal Squeeze;
- Changes in species distribution;
- Undergrazing;
- Invasive species;
- Natural changes to site conditions;
- Public access/disturbance;
- Fisheries: commercial, marine and estuarine;
- Direct land take from development;
- Air pollution; and,
- Direct impact from third party.

5.76 It is not considered that there are identified functional linkages with the following vulnerabilities, which will result in likely significant effects on the SAC:

- Coastal squeeze –Due to gradual and persistent loss of intertidal habitat (linked to sea level rise) and presence of fixed defences. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Changes in species distribution – Declines in populations of SPA bird features due to unknown factors. River and sea lamprey spawn in freshwater sites many kilometres upstream of designated site. There is no evidence that the decline in SPA bird populations is functionally linked to the policies and proposals in the Solihull Draft Local Plan. The lamprey spawning requirements are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Undergrazing – Lack of grazing by livestock can result in reduction of suitable habitat for roosting/loafing SPA birds. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Invasive species – given the spatial distance from Solihull boundary, the presence of high impact invasive vegetation such as Himalayan Balsam, Giant Hogweed and Japanese knotweed will not be linked to the Draft Local Plan. The presence of marine invasive species will similarly not arise from policies and proposals in the Draft Local Plan.
- Natural changes to site conditions - These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Public access/disturbance - These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Fisheries: commercial, marine and estuarine - These are more localised impacts that will not be affected by the Solihull Draft Local Plan.

[36] https://publications.naturalengland.org.uk/file/5730884670980096

- Direct land take from development - These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Air Quality – Atmospheric nitrogen deposition exceeds site relevant critical loads. However, it is considered that any contribution from development in Solihull towards atmospheric nitrogen would be negligible given the large spatial distance between the two sites and lack of functional linkages between Solihull and the road network surrounding the Humber Estuary SAC, SPA and Ramsar.

Water Pollution

5.77 The Site Improvement Plan (2015) for the Humber Estuary SAC identifies a range of water-quality issues, including seasonal dissolved oxygen deficits in the tidal River Ouse that may affect sea lamprey migration, contamination risks associated with the former Capper Pass industrial site, and elevated phosphorus concentrations within several adjacent clay-pit complexes. Whilst Solihull Metropolitan Borough lies within the wider River Tame catchment, the Site Improvement Plan does not identify any direct linkages between these specific estuarine pressures and activities within the Borough. These impacts will not therefore be affected by policies and proposals in the Draft Local Plan.

5.78 However, the policies and proposals of the Draft Local Plan are likely to result in an increased demand for wastewater management.

5.79 The capacity of the local wastewater treatment works (WwTw) for the previous Local Plan Review were assessed in the 2017 Solihull Water Cycle Study, which is currently being updated.

5.80 The four highlighted WwTW plants at Balsall Common, Barston, Meriden and Norton Green, serve the principal growth locations within Solihull. These all discharge either directly to the River Blythe or to tributary watercourses within the River Blythe catchment. The River Blythe flows into the River Tame, which joins the River Trent before discharging to the Humber Estuary, an impact pathway between the proposals in the Draft Local Plan and the designated Habitats Sites.

5.81 The 2017 study concluded the following:

- WwTW at Balsall Common, Barston, Meriden and Norton Green are all operating above the Phosphorous Permit Conditions;
- The proposed growth is not predicted to lead to any class deteriorations, or deteriorations of water quality greater than 10% for any determinant; and
- Environmental capacity is not considered to be a constraint to growth at any of the WwTW plants assessed.

5.82 However, it would be anticipated that Balsall Common, Barston, Meriden and Norton Green WwTW will need to be brought into compliance with their phosphorous permits before any significant growth is connected to these treatment works.

5.83 The 2020 Solihull 2020 Infrastructure Delivery Plan[37] provided updated information from Severn Trent:

"*The Phase 1 Water Cycle Study (WCS) has been carried out in co operation with the EA and STW. The WCS assesses the potential issues relating to future development within the*

[37] Section 3.3.1 - https://www.solihull.gov.uk/sites/default/files/2020-12/Draft-Infrastructure-Delivery-Plan-2020.pdf

Borough and the impacts on water supply, wastewater collection and wastewater treatment… Overall, there are no major issues identified which indicate that the planned scale, location and timing of planned development within the Borough is achievable from the perspective of supplying water and wastewater services, and preventing deterioration of water quality in receiving waters. However, significant wastewater treatment capacity issues have been identified at 10 of the 21 sites [across the sub-region].

Severn Trent Water were provided with updated housing information in 2019, and confirmed there were still a number of high and medium risk sites (identified in their high level sewerage capacity assessments). STW have advised: "Once detailed developments and site specific locations are confirmed by local councils, we are able to provide more specific comments and modelling of the network if required". In terms of sewerage capacity, "in areas where sufficient capacity is not currently available and we have sufficient confidence that developments will be built, we will complete necessary improvements to provide the capacity"…

Under the Flood Water Management Act, new development no longer has the automatic right to connect surface water drainage to sewers. Developers will be required to put Sustainable Drainage Systems in place in new developments, wherever practicable. Connection will be conditional on meeting national standards on SUDs and drainage."

5.84 The need to ensure relevant WwTW are compliant with their phosphorous permits was identified as an immediate constraint to future development in these locations in the 2020 HRA. However, it was concluded that any extra pollution loading from new development will require a new Environmental Permit from the Environment Agency which will ensure that this will not lead to a deterioration in the water quality of the receiving watercourse.

5.85 The Environment Agency have a duty under the Water Framework Directive to ensure that all waterbodies achieve Good Ecological Status and are also required under the Habitats Directive to have regard to the protection and restoration of European Sites. Therefore, new development proposals that may result in a deterioration in the status of the river will be subject to controls and measures through the Environmental Permit process which will restrict downstream effects on the Humber Estuary SAC.

Humber Estuary Ramsar

5.86 Appendix 1 highlights that the favourable conservation status of the Humber Estuary Ramsar is vulnerable to the following key issues:

- Disturbance to vegetation through cutting/clearing;
- Vegetation/succession;
- Water diversion for irrigation/domestic/industrial use;
- Overfishing;
- Pollution – domestic sewerage;
- Pollution – agricultural fertilisers;
- Recreational/tourism disturbance; and,
- Coastal squeeze

5.87 It is not considered that there are identified functional linkages with the following vulnerabilities, which will result in likely significant effects on the Ramsar:

- Disturbance to vegetation – These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Vegetation/Succession – These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Overfishing –These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Pollution – Agricultural fertilisers – These are more localised impacts that will not be affected by the Solihull Draft Local Plan.
- Recreation/Tourism disturbance – Given the large spatial distance between the Ramsar and Solihull it is not considered that these impacts that will be affected by the Solihull Draft Local Plan.
- Coastal squeeze - Due to gradual and persistent loss of intertidal habitat (linked to sea level rise) and presence of fixed defences. These are more localised impacts that will not be affected by the Solihull Draft Local Plan.

Water diversion of irrigation/domestic/industrial use

5.88 All water abstractions carried out in the Metropolitan Borough are carried out in compliance with the Tame, Anker and Mease Catchment Area Management Plan and the Avon Catchment Management, both of which are overseen by the Environment Agency as a licencing authority.

5.89 The Environment Agency has a duty under the Habitats Directive to ensure that any new licence applications for abstraction do not adversely affect any European Sites. Therefore, with these licences and controls it is highly unlikely that abstraction within the Tame, Anker or Mease Catchment will result in water diversion effects in the Humber Estuary.

5.90 Water supply in the Solihull Metropolitan Borough is provided by Severn Trent Water whose Water Resource Management Area includes strategic water assets in the Humber Basin.

5.91 Management of water supply within the Severn Trent area is set out in the Water Resources Management Plan 2024.

5.92 The HRA[38] supporting the Severn Trent Water WRMP24 states the following on the Humber Estuary EMS (combining the SAC, SPA and Ramsar):

"The *effects of the WRMP24 options operating 'in-combination' have been explored through the screening and appropriate assessment phases (see from Section 5 to Section 16 where relevant), with an assessment on the impacts to the River Trent (relevant to offsite functionally linked habitat for the River Mease SAC qualifying features) and the Humber Estuary (relevant to the Humber Estuary European Marine Site migratory fish and freshwater input to estuaries) below. These assessments have concluded that adverse 'in-combination' effects are not likely to occur for any European sites or features based on the currently available information, although this may require updating with the development of the groundwater model.*"

5.93 It is therefore considered that the increased demand in water supply to facilitate the policies and proposals of the Solihull Draft Local Plan will have no effect on the Humber Estuary Ramsar with regards to water diversion either alone or combination with other plans.

Pollution – Domestic Sewerage

5.94 The Site Improvement Plan for the Humber Estuary SAC and SPA (see entry above), identifies issues regarding water pollution that are also likely to be relevant to the Humber Estuary Ramsar.

5.95 The conclusions of the assessment made for the Humber Estuary SAC and SPA above with apply to the Ramsar. This concludes that there will be no significant effect on the Humber Estuary with regards to the policies and proposals within the Solihull Draft Local Plan.

[38] https://www.severntrent.com/content/dam/wrmp24-documents-and-data-tables-st/final-WRMP24-HRA-Report.pdf

6. Conclusions and Recommendations

Summary of Determination of Likely Significant Effects

6.1 Table 6.1 summarises the findings in Chapter 5, which determine whether any of the policies and proposals of the Draft Solihull Local Plan will result in a likely significant effect on a European site.

Table 6.1 Summary of Likely Significant effects of Solihull Draft Local Plan on Habitats Sites

Habitats Site	Potential Impacts on Qualifying Features			
	Air Quality (atmospheric pollution)	Water quantity (abstraction)	Water quality (diffuse pollution)	Recreational disturbance
Ensors Pool SAC	No effect	No effect	No effect	No effect
Cannock Extension Canal SAC	No effect	No effect	No effect	No effect
Fens Pool SAC	No effect	No effect	No effect	No effect
River Mease SAC	No effect	No effect	No effect	No effect
Cannock Chase SAC	No effect	No effect	No effect	No effect
River Wye SAC	No effect	No effect	No effect	No effect
Elenydd SAC	No effect	No effect	No effect	No effect
Humber Estuary SAC	No effect	No effect	No effect	No effect
Humber Estuary SPA	No effect	No effect	No effect	No effect
Humber Estuary Ramsar	No effect	No effect	No effect	No effect

6.2 The Stage 1 Screening Assessment has found no likely significant effects on the conservation objectives of the above Habitats Sites. The screening process has examined impacts and functional pathways arising from the policies and proposals in the Draft Local Plan, in accordance with Government guidance and best practice[39]. In-combination effects have been looked at where Solihull contributes to a wider sub-regional/regional impact, such as water abstraction and wastewater treatment.

6.3 The recommendation is therefore to not proceed with a Stage 2 Appropriate Assessment under the Habitat Regulations.

6.4 The findings of the Stage 1 Screening Assessment will be submitted to Natural England, as the statutory nature conservation body, to allow further comment and consideration.

6.5 Any future material revisions of the Solihull Draft Local Plan should be submitted to additional screening to determine if such changes to the policies and proposals of the plan could give rise to a likely significant effect on a Habitats Sites, either alone or in-combination with other plans and projects.

[39] https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site

Appendix 1 – Conservation Objectives of Habitats Sites and Identified Key Vulnerabilities for the favourable conservation of the Qualifying Features

Site	Qualifying Features	Wider site description	Conservation Objectives	Key Vulnerabilities and Actions
Within 25km of Solihull Boundary				
Ensors Pool Designation: SAC, & SSSI Area (ha): 3.86 LA: Warwickshire Grid ref: SP348903 Code: UK0012646	Species: *Austropotamobius pallipes*: White-clawed (or Atlantic stream) crayfish (S1092) This former marl pit has held a very large population estimated at 50,000 individuals.	Ensor's Pool lies on western edge of Nuneaton and formed in an abandoned clay pit. The pool has some marginal vegetation of *Juncus inflexus*, *Eleocharis palustris, Equisetum fluviatile* and *Typha angustifolia*. Water plants include *Myriophyllum spicatum* and *Potamogeton natans*. The pool also supports a number of dragonflies & damselflies. The pool is surrounded by areas of scrub & grassland.	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. Source: Natural England (2014)[40]	Change in species distribution: The site was formerly a stronghold for native white-clawed crayfish with a population estimated at around 50,000 animals. However, no crayfish were found during two survey visits in 2014 and 2015. The cause of this decline remains unclear. The Site Improvement Plan (2018): The pool still provides a suitable habitat for crayfish with abundant emergent and submerged vegetation; under-cut banks providing potential refuges and shelter from predator and there appears to be good crayfish habitat around all of the pool. Further advice on actions: • Maintain an absence of non-native crayfish within the site; • Ensure human activities within or around the site do not pose a significant risk of plague transfer; • Maintain continuity of the feature's supporting habitat across the site;

[40] https://publications.naturalengland.org.uk/file/5267179054563328

				• Maintain appropriate calcium and oxygen levels; • Ensure supporting habitat is not at risk of effluent discharges from within the site's wider catchment; • Maintain current extent and diversity of shoreline refugia. Source: Natural England[41]
Cannock Extension Canal SAC Designation: SAC, & SSSI Area (ha): 5.47 LA: Staffordshire & Walsall Grid ref: SK019055 Code: UK0012672	Species: Floating water-plantain (*Luronium natans*) (S1831)	The Cannock Extension Canal in central England is an example of anthropogenic, lowland habitat supporting floating water-plantain *Luronium natans* at the eastern limit of the plant's natural distribution on England. The waterway is a terminal side branch of the Wyrley and Essington Canal extending northwards for 2.5 km towards Norton Canes. The canal is fed by Chasewater Reservoir SSSI that lies approximately 8km to the north-east. The high water quality of the canal is due to the wider catchment	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.	Prioritised issues for the site: Water pollution – There is an indication that there is a sediment load, albeit low, that is still entering the canal, which can be perceived after heavy rainfall events. Investigation required to understand the source, including any road drainage. Overgrazing – Large groups of Canada geese are grazing on the water plants in the canal. There is a risk that this could affect the vegetation community including Floating water-plantain as well as contributing additional nutrients via excreta. Invasive species – Water fern *Azolla filiculoides* and Water pennywort *Hydrocotyle ranunculoides* have been present on the canal in the recent past. The Canal and Rivers Trust have taken measures to control their spread, but there is threat of other

[41] https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0012646.pdf

		of its feeder reservoir comprising semi-natural habitat such as heathland at Cuckoo Bank and little intensive agriculture in the catchment.	Source: Natural England 2018[42]	invasive species such as New Zealand pygmyweed. Air Pollution – Nitrogen deposition exceeds site relevant critical load. The site could be affected by major roads, industrial estates and farming in the vicinity. Source Natural England 2014[43]
Fens Pool SAC Designation: SAC, & SSSI & LNR Area (ha): 20.4 LA: Dudley Grid ref: SO920886 Code: UK0030150	Species: *Triturus cristatus*; Great crested newt (S1166) Nationally significant amphibian assemblage	Fens Pools is the best amphibian site known in the West Midlands. It comprises three canal feeder reservoirs and a series of smaller pools. The site shows evidence of past industrial activities and includes a wide range of habitats. Amphibians inhabit the whole site, using the pools for breeding. The community includes common frog *Rana temporaria*, common toad *Bufo bufo* and exceptional numbers of both smooth and great crested newts (*Triturus*	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,	Prioritised issues for the site: The site lies in an urban area and the nationally important assemblage of GCNs are under constant pressure from anthropogenic activities such as fly tipping, off road vehicles, unlicenced grazing as well under management of pools and surrounding woodland and scrub areas. Overgrazing – Due to illicit stocking on the site of tethered horses. During the summer months the overgrazed sward results in reduced availability of invertebrate food prey for amphibian populations. Inappropriate scrub control – Lack of scrub management has resulted in vegetation encroachment and contributed to pools' degradation. Disease – Chytrid fungus has been detected in non-native alpine newts found on the site. The

[42] https://publications.naturalengland.org.uk/file/5726861862895616 and https://designatedsites.naturalengland.org.uk/ConservationAdvice.aspx?SiteCode=UK0012672&SiteName=Cannock%20Extension&SiteNameDisplay=Cannock%20Extension%20Canal%20SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&HasCA=1&NumMarineSeasonality=0&SiteNameDisplay=Cannock%20Extension%20Canal%20SAC#hlco

[43] https://publications.naturalengland.org.uk/file/6749431462363136

		vulgaris and *T. cristatus* respectively).	• The distribution of qualifying species within the site. Source: Natural England 2018[44]	presence of alpine newts continues to be monitored for chytrid fungus and whether they are causing a decline in the resident populations of the native amphibians. Water pollution – Off road burnt out vehicles in particular pose a pollution threat to the GCNs. Habitat fragmentation – Fen Pools is partially isolated as a result of its location within a built-up urban area. Connectivity and therefore genetic interchange with other GCN populations is believed to be non-existent. Source: Natural England 2014[45]
Between 25 and 50km of the Solihull boundary				
River Mease SAC Designation: SAC, & SSSI Area (ha): 21.86 LA: NW Leicestershire District Council, South Derbyshire DC and Lichfield DC. Grid ref: SK 259114 Code: UK0030258	Habitats: 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 Species: S1092. *Austropotamobius pallipes*; White-clawed (or Atlantic stream) crayfish	The River Mease is representative of a relatively un-modified clay lowland river which supports nationally significant populations of Spined Loach *Cobitis taenia* and Bullhead *Cottus gobio*. The River Mease arises in North West Leicestershire and flows westwards through Derbyshire and Staffordshire for around 25 kilometres across a largely	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;	Prioritised issues: Water pollution - Elevated levels of phosphate contribute to eutrophication leading to increased algal growth and the decline in abundance and/or diversity of characteristic plant and freshwater species and habitats of the SAC. A large proportion of phosphate is associated with the high number of sewage treatment works (STWs) and more diffuse septic tank discharges. N.B. Since the SIP, Natural England (March 2022) have issued advice to relevant local authorities in Warwickshire, Staffordshire, Derbyshire and Leicestershire in relation to nutrient neutrality for

[44] https://publications.naturalengland.org.uk/file/6642225895440384
[45] https://publications.naturalengland.org.uk/file/4872756676001792

	S1149. *Cobitis taenia*; Spined loach S1163. *Cottus gobio*; Bullhead S1355. *Lutra lutra*; Otter	rural and agricultural landscape to its confluence with the Trent at Croxall. It is a small tributary of the River Trent system and represents a relatively unmodified lowland river with a diverse range of in-channel features, including riffles, pools, shoals, vegetated channel margins and bank side tree cover. The upper reaches of the Mease, while mainly rural, also includes the small urban area of Measham. The middle reaches meander across the broad lowland floodplain. Submerged aquatic vegetation becomes more varied on the lower reaches of the river. The River Mease catchment is characterised by extensive areas of arable cultivation with low, sparse hedges and few hedgerow trees.	• 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. Source: Natural England 2018[46]	developments in the River Mease SAC catchment47. Furthermore, any development granted that would extract water from or discharge foul water to the River Mease that is likely to have a significant impact on the integrity of the River Mease requires a Regulation 77 (Habs Regs) application. Drainage – Cumulatively drains, field under drainage and other discharges (eg.11 sewage treatment works, and roads as a conduit) within the catchment affect the naturalised flow pattern. As a consequence the river appears more 'flashy' with water levels rising and falling with increased rapidity. Inappropriate weirs, dams and other structures – The physical condition of the watercourse has been modified in several ways, affecting fish movements and hydrology. The River Mease River Restoration Plan seeks to remove unsuitable structures, however any weir removal must be compatible with the protection of the native crayfish population. Invasive species – Himalayan balsam and Japanese knotweed have been found along the banks of the river. American signal crayfish, which can outcompete the native species and carry

[46] https://publications.naturalengland.org.uk/file/6012812623347712
[47] https://www.lichfielddc.gov.uk/planning-developers-business/special-areas-conservation/2

				crayfish plague, have been found in lower reaches of the river. Siltation – Needs to be reduced and prevented where possible from runoff as high levels of siltation act to smother the gravel beds used as spawning habitat by the bullhead; and covers areas of fine sand used as spawning habitat by the spined loach. Water abstraction - Water abstraction changes the naturalised flow pattern from low to high flows and all flow ranges are important for different life stages of the SAC species. As of the 2014, there were a number of regulated agricultural related abstractions along the River Mease and a permitted transfer of ground water to the Ashby Canal, and 11 sewage treatment works within the catchment. These provided a net surplus of water to the system overall. Source: Natural England 2014[48]
Cannock Chase SAC Designation: SAC, & SSSI Area (ha): 1,243.97 LA: Staffordshire Grid ref: SJ 988179	Habitats: Northern Atlantic wet heaths with *Erica tetralix* (H4010) 4030 – European dry heaths (H4030)	Cannock Chase is a large, diverse area of semi-natural vegetation comprising the majority of the most ecologically valuable parts of the former Royal Chase, one of a nationally important series of relict ancient	Ensure that the integrity of the site is maintained, and ensure that the site retains its ability to contribute to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:	Recreational pressure – Increased visitor pressure and cumulative impacts of recreation can pose a major threat in terms of disturbance to wildlife and fragile habitats by people and pets; eutrophication and pollution; increased risk of wildfire; resources drawn from conservation management etc.

[48] https://publications.naturalengland.org.uk/file/6448011194400768

Code: UK0030107		Forest/Chase landscapes in the Midlands. The area of lowland dry heathland at Cannock Chase is the most extensive in the Midlands. Its special interest also reflects an unusual floristic character. The valley mire/wet heath communities are rare, threatened vegetation types, being some of the most floristically-rich and representative examples of their type in central England. floristically-rich and representative examples of their type in central England. The outstandingly diverse invertebrate fauna includes many species of restricted national occurrence. Home to several characteristic heathland birds, including nightjar, woodlark and Dartford warbler.	• The extent and distribution of the habitats of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and, • The supporting processes on which the qualifying natural habitats rely. Source Natural England 2020[49]	Source: Footprint Ecology 2021[50] Undergrazing – Need for conservation grazing plan with built-in biosecurity to minimise spread of *Phytophthora pseudosyringae*. Conservation grazing by appropriate stock will help restoration of dry and wet heathland habitats and address a number of management issues. Drainage – Restore to as natural as possible a functioning wetland system, in particular in Oldacre Valley, to maintain and enhance the wetland habitats. Hydrological changes – Extent of valley mire has been reduced and indications of a move towards a drier wetland vegetation. Disease - The fungal plant disease *Phytophthora pseudosyringae* is widespread on several parts of the main body of the Chase, affecting bilberry, a major part of the heathland vegetation. Air Pollution: impact of atmospheric nitrogen deposition. Possible effects of this seen on the ground include an increase in bramble across the site and a shorter Calluna vulgaris lifecycle resulting in the plants ageing faster. See also – Critical levels of ammonia (NH3), nitrogen oxides (Nox) and sulphur dioxide (SO2), as

[49] https://designatedsites.naturalengland.org.uk/TerrestrialAdvicePDFs/UK0030107.pdf
[50] https://www.lichfielddc.gov.uk/downloads/file/2025/cannock-chase-special-area-of-conservation-planning-evidence-base-review-stage-2

		Cannock Chase is also a regional refuge for declining and vulnerable reptile species such as adder, common lizard, and slow worm.		well as critical loads for nutrient nitrogen deposition and acid deposition. Wildfire/arson: Accidental and deliberate fires have caused massive damage to Cannock Chase over the decades. These have detrimental impacts on the habitat integrity and species conservation. The threat has continued to increase in recent years due to hotter drier summers and public's use of barbecues and other flammable products. Invasive species – A range of (non-native) invasive species are present on the SAC and on surrounding land. Monitoring and controlling the spread of certain aggressive species is vital to prevent damage to the dry and wet heath communities. Source: Natural England 2014[51]
Greater than 50km from the Solihull boundary				
River Wye/Afon Gwy SAC Designation: SAC, & SSSI Area (ha): 2,147.64 LA: Powys (Wales), Gloucestershire & Herefordshire authorities Grid ref: SJ 988179	Habitats: Watercourses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (H3260) Quaking bogs and transition mires (H7410) Species: 7 fish species:	The River Wye SAC is a large river on the border of England and Wales with a large geographically mixed catchment and a clear vegetative transition between the upland and lower reaches. The SAC principally comprises Inland water bodies (52.5%) with tidal rivers, estuaries sand flats, lagoons (9.5%), salt	For habitat features: Extent should be stable in the long term, or where appropriate increasing*; Quality (including in terms of ecological structure and function) should be being maintained, or where appropriate improving; Populations of the habitat's typical species must be being maintained or where appropriate increasing*;	Key Issues: Water pollution- high water quality is imperative to breeding success of salmon. Concerns due to diffuse pollution from agricultural run-off, road run-off and point pollution from e.g. mining waste; resulting in eutrophication, raised metals concentrations, etc. Physical modification – this is a relatively near natural river system and needs to be maintained in that state. Risks due to public access and local

[51] https://publications.naturalengland.org.uk/file/4810429419225088

Code: UK0012642	Sea lamprey *Petromyzon marinus* (S1095); Rook lamprey *Lampetra planeri* (S1096); River lamprey *Lampetra fluviatilis* (S1099); Rwaite shad *Alosa fallax* (S1103); Allis shad *Alosa alosa* (S1102); Atlantic salmon *Salmo salar* (S1106); Bullhead *Cottus gobio* (S1163). Other species: European otter *Lutra lutra* (S1355) White-clawed crayfish *Austropotambius pallipes* (S1092)	marches, salt pastures and salt steppe (1.5%) Bogs, marshes water-fringed vegetation and fens (3.1%), heath and scrub (1%) dry grassland (5.3%) mesophile grassland (2.4%) improved grassland 10.4%) broad-leaved deciduous woodland (12.3%) inland rocks screes and sands (0.2%) and other land (1.8%). (JNCC[52])	Factors affecting the extent and quality of the habitat and its typical species (and thus affecting the habitat's future prospects) should be under appropriate control. For species features: The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term*; The distribution of the population should be being maintained*; There should be sufficient habitat, of sufficient quality, to support the population in the long term; Factors affecting the population or its habitat should be under appropriate control. Source: Natural Resources Wales 2023[53] See also: Natural England 2018[54]	erosion, small scale development impacting hydromorphology and character. Invasive species - Himalayan Balsam, Japanese Knotweed, Giant Hogweed and hybrids are present throughout the catchment and these require control. Biosecurity plan recommended to prevent other invasive species reaching the catchment. Hydrological changes – Can be affected by urban drainage and new development, as well as from forestry and agricultural practices. Cattle and sheep can provide beneficial bankside grazing, however, free access can cause issues with pollution and erosion. Forestry and woodland management - Gauging appropriate management levels is difficult but there is a need to balance management and risks with fisheries management, navigation and flood risk management. Clearfell/management of upland conifer plantations can lead to sediment and nitrate release which is a concern. Fisheries: freshwater - The management of banks and vegetation by river users is not always compatible with the SAC features e.g. digging steps and mowing banks. In channel management of gravels may impact the river habitat. Angling is managed via bylaws e.g. compulsory catch and

[52] https://sac.jncc.gov.uk/site/UK0012642
[53] https://naturalresources.wales/media/a0ooioqx/river-wye-sac-core-management-plan-approved.pdf
[54] https://publications.naturalengland.org.uk/file/5099305425960960

				release of salmon year round on the Wye and Shad fishing is not permitted. Fisheries: fish stocking – At time of writing (2014) fish stocking was continuing. Fish hatcheries are being phased out by National Resources Wales (NRW). Water abstraction - Water flow does not follow the near natural pattern because of the effects of Elan reservoirs and the releases made from the dams. Work is underway (UWAG) to assess and agree a revised set of reservoir release rules that will require changes to the operating agreement. More natural flushing and migration flows are proposed. There is a potential impact on hydro-morphology and ecology due to regular higher than natural flows. There is a need to integrate environmental requirements with the need for public water supply and agriculture. Public access/disturbance - The high usage of the river by canoeists and anglers has the potential to cause disturbance to SAC species and habitats as well as the supporting or dependant flora and fauna. Examples range from the cutting of water crowfoot *Ranunculus* beds for navigation, dogs disturbing otters and the disturbance of gravel bars and beds by canoeists. Air pollution - Nitrogen deposition exceeds site relevant critical loads with respect to the SAC's transition mire habitat located in Wales.

				Inappropriate scrub control - Increased scrub and woodland is affecting the structure and composition of the transitional mire and quaking bog at Colwyn Brook Marshes. This appears to indicate drying out due to a change in hydrological processes/wetland structure function and/or vegetation succession due to a change in grazing pressure. Undergrazing - Undergrazing is affecting the structure and composition of the transitional mire and quaking bog feature at Colwyn Brook Marshes and may be contributing to further scrub encroachment and vegetation succession. Transportation and service corridors – Recommendation to produce a site management statement which ensures that the SAC features are taken into account when undertaking works on Network Rail's assets. Source: Natural England 2014[55]
Elenydd SAC Designation: SAC Area (ha): 8;609.1 LA: East Wales, West Wales & The Valleys Grid ref: SN824704	Habitats: Calaminarian grasslands of the *Violetalia calaminariae* (H6130) Blanket bogs (if active bog) (H7130)	General site character • Inland water bodies (Standing water, Running water) (0.7%) • Bogs, Marshes, Water fringed vegetation, Fens (58%)	**Calaminarian grasslands of the *Violetalia calaminariae*** (6130): • The habitat covers at least its current measured area. • Lichens dominate large blocks of metal rich spoil from mine workings, tips, walls and other built structures.	N.B. These are collated from the 2008 (minor amendment in 2013) Core Management Plan from NRW that includes Elenydd SAC[58]: Water clarity – Floating water plantain requires good light penetration to lake bed to thrive, and is affected by sediment load. Water quality – Oligotrophic lakes and associated plant communities are vulnerable to acidification

[55] https://publications.naturalengland.org.uk/file/5550181483282432
[58] https://naturalresources.wales/media/671965/Elenydd_cSAC_core_English.pdf

Code: UK0012928	N.B. Elenydd comprises the largest tract of blanket mire within the central Wales uplands. The following two habitats are Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (H3130) European dry heaths (H4030) Species: Floating water-plantain, *Luronium natans* (S1831)	• Heath, Scrub, Maquis and Garrigue, Phygrana (6.2%) • Dry grassland, Steppes (16.1%) • Humid grassland, Mesophile grassland (18.2%) • Inland rocks, Screes, Sands, Permanent Snow and ice (0.5%) • Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites) (0.3%) Source: JNCC[56]	• Lichens, mosses, ferns and a few higher plants such as sea campion are present on rock outcrops in cliffs, open cuts and about the entrances to shafts and adits. • On open, usually level ground, plant communities are found represented by the moss genus *Weissia* and a range of crustose metallophyte lichens. The moss *Ditrichum plumbicola* and sea campion occur in the most base-rich areas, usually associated with scattered lime mortar from adjacent buildings. • Heath, shrub, trees or other woody species are scarce or absent • Light grazing prevents the growth of tall herbs, scrub and woodland. Grazing levels are carefully managed to avoid undesirable levels of ground disturbance. • Areas of disturbed bare ground occupy less than 10% of potential areas that could be occupied by this habitat. • There is less than 1% cover of non-native plants. There is no newly dumped material. The habitat is spreading gradually across this	from distant/diffuse sources and nutrients from adjacent catchment Hydrology – Water levels in the upland lakes should not be altered artificially. Drainage - For bog areas, the plants and wetland areas benefit from impeded drainage. The bogs, wet heathland, springs, flushes and marshy grassland are all vulnerable to drying out as a result of drainage. Air Quality -Atmospheric pollution are likely contributing to acidification and nutrient enrichment. Dwarf shrubs, mosses, liverworts and lichens are particularly vulnerable to pollution from atmospheric sources. Disturbance - Disturbance from excavation, (unauthorised) vehicles and stock trampling can seriously affect Calaminarian grasslands of the *Violetalia calaminariae* and cause erosion on the dry heaths. Grazing pressure – Need sufficient grazing to prevent scrub or coarse vegetation in areas of Calaminarian grasslands, but not so heavy that it causes disturbances. Bog vegetation is particularly sensitive to grazing damage, which may lead to serious erosion.

[56] https://sac.jncc.gov.uk/site/UK0012928

			extensive site wherever suitable conditions exist. • All factors affecting the achievement of these conditions are under control. **Blanket bogs (7130):** • The extent, quality and diversity of blanket bog vegetation within the constituent sites is maintained and, where possible, degraded bog is restored to good condition. • Populations of uncommon bog plants, such as tall bog-sedge, slender sedge, magellanic bog-moss and round-fruited collar-moss, are stable or increasing. • The bogs continue to provide suitable habitat for breeding birds, including golden plover, dunlin and red grouse, and invertebrates, such as large heath butterfly. • Peat profiles containing important pollen records are maintained. • All factors affecting the achievement of these conditions are under control. **Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (3130)**	Stock feeding – need to be careful of stock feeding in mine areas as can damage substrate and lead to eutrophication. Burning – the bogs, wet heath and other wetland areas do not tolerate burning, and is likely to damage important species, especially bog mosses ground nesting birds. Peat Erosion - There is a natural cycle of peat erosion and deposition, but the balance can be upset by burning, heavy grazing, pollution and vehicle damage.

			Fully developed oligotrophic lake vegetation is present in each of the lakes, including all of the component species typical of the SAC feature, as represented in the Elenydd SAC. For each of the lakes where it occurs, the extent and species composition of the oligotrophic lake vegetation is stable or increasing in range and/or diversity. Low nutrient and shade levels are maintained. All factors affecting the achievement of these conditions are under control (see original for more detail). **European dry heaths (4030)** • The extent, quality and diversity of heath vegetation within the constituent sites is maintained and, where possible, degraded heath is restored to good condition. • The main heathland areas have a varied age structure with a mosaic of young heath, mature heath and degenerate heath. • Sunny slopes in certain areas support vegetation that includes bell heather and western gorse and steep north and east facing slopes have a rich variety of	

			mosses and liverworts beneath the dwarf shrub canopy, including bog mosses in some areas. • Populations of uncommon plants, such as lesser twayblade, are stable or increasing. • The larger heathland areas provide suitable habitat for breeding birds, including red grouse and merlin. • All factors affecting the achievement of these conditions are under control. **Floating water-plantain, *Luronium natans* (1831)** The floating water-plantain populations are viable throughout their current distribution in the plan area (maintaining themselves on a long-term basis) Each floating water-plantain population will be able to complete sexual and/or vegetative reproduction successfully. • Potential for genetic exchange between floating water-plantain populations, in and/or outside the plan area, will be evident in the long-term. Near-natural hydrological and geomorphological processes and forms	

			will be operating in the 4 lakes e.g. water levels, water depth, stability of bed substrate, with no artificial regulation of water levels or altered sediment regimes. • Low nutrient and shade levels will be maintained, with no species present indicative of unfavourable conditions e.g. filamentous algae. • The dispersal of floating water plantain will be unhindered. • There will be no non-native invasive species present. • All factors affecting the achievement of the above conditions are under control. Source: NRW 2008[57]	
Humber Estuary (Flats, Marshes and Coast) SPA Designation: SPA Area (ha): 37,630.24 (Marine area 89.5%) LA: Lincolnshire, East Yorkshire, Northern	Waterbird Assemblage: *Botaurus stellaris*; Great bittern (Non-breeding) (A021) *Botaurus stellaris*; Great bittern (Breeding) (A021) *Tadorna tadorna*; Common shelduck (Non-breeding) (A048)	The JNCC website describes the Humber Estuary SPA as follows: *"The Humber Flats, Marshes and Coast is located on the east coast of England and comprises extensive wetland and coastal habitats within the Humber Estuary. The Estuary drains a catchment of some 24,240*	• 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	Site Improvement Plan covers both the Humber Estuary SPA and SAC: Key issues: Water pollution - There is an annual Dissolved Oxygen (DO) sag in the tidal River Ouse which has been present for many years, but has shown improvements more recently due to reductions in pollution (as of 2018). Possibility that DO sag may cause a barrier to sea lamprey when migrating to the area during the summer months.

[57] https://naturalresources.wales/media/671965/Elenydd_cSAC_core_English.pdf

Lincolnshire, 'Extra-Regio'. Grid ref: TF 363 078 Code: UK9006111	*Circus aeruginosus;* Eurasian marsh harrier (Breeding) (A081) *Circus cyaneus*; Hen harrier (Non-breeding) (A082) *Recurvirostra avosetta*; Pied avocet (Non-breeding) (A132) *Recurvirostra avosetta*; Pied avocet (Breeding) A132 *Pluvialis apricaria*; European golden plover (Non-breeding) (A140) *Calidris canutus*; Red knot (Non-breeding) (A143) *Calidris alpina alpina*; Dunlin (Non-breeding) (A149) *Philomachus pugnax*; Ruff (Non-breeding) (A151) *Limosa limosa islandica*; Black-tailed godwit (Non-breeding) (A156) *Limosa lapponica*; Bar-tailed godwit (Non-breeding) (A157) *Tringa totanus*; Common redshank (Non-breeding) (A162)	*square kilometres and provides the largest single point of freshwater from Britain into the North Sea. It has the second highest tidal range in Britain (7.2 m) and approximately one-third of the estuary is exposed as mud or sand-flats at low tide."*	• 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.	Concern about pollutants leaching from a former aluminium smelting plant. Clay pits on the south bank may be leaching phosphorus. Historical issues with Tributylin in the sediment. Coastal squeeze - The gradual and persistent loss of intertidal habitat due to sea level rise and presence of fixed defences affects every saltmarsh and mudflats where saltmarsh is absent. This is causing a loss of designated SAC features which needs to be addressed. A loss in mudflat can in turn affect SPA bird features that depend on these habitats. Changes in species distributions – Declines in SPA bird features due to unknown factors. Require further investigations to identify key spawning areas of river and sea lamprey. Undergrazing – Lack of grazing has resulted in loss of suitable habitat for roosting/loafing SPA birds. Invasive species - Presence of Azolla (water fern). Giant Hogweed and Japanese knotweed at localised areas. Himalayan balsam a catchment wide issue. More investigations required on slipper limpet and Chinese mitten crab that have been detected. Natural changes to site conditions - Changes in the topography and habitats in the inner estuary may lead to a reduction of important habitats such as mudflats. There is evidence of changes including

	Sterna albifrons; Little tern (Breeding) (A195) N.B. This SPA is a part of the Humber Estuary European Marine Site (EMS)[59]			increased growth of Salicornia on mudflats. Past storm events have affected structure of designated features. Likely increase in extreme weather events year on year due to climate change. Increasing sediment loads within North Killingholm Haven pits. Public access/Disturbance - Recreational disturbance could be contributing to the declines in breeding and migratory bird populations at certain locations including East Halton Skitter, Barton Pits, Faxfleet and Welwick, e.g. off road vehicles, as well as dog walkers and birders. Fisheries: fish stocking - Several of the clay pits on the south bank of the estuary have active fisheries or have had fisheries in the past and still support non-native fish. The over-stocking of native and non-native fish is destructive to the clay pits freshwater habitat, having a negative impact on water quality and is implicated in the decline of macrophytes and in many of clay pits. The decline in macrophytes and water quality may both negatively impact SPA waterbirds. Fisheries – Commercial marine & estuarine - Dredges (inc. hydraulic), benthic trawls and seines and shore-based activities are categorised as 'Red' for the mudflats and sandflats not covered by seawater at low tide interest feature (and specifically the sub-feature: Eelgrass communities) as part of Defra's revised approach
Humber Estuary SAC Designation: SAC Area (ha): 36,657.15 LA: Lincolnshire, East Yorkshire, Northern Lincolnshire, 'Extra-Regio'. Grid ref: SE838110 Code: UK0030170	Habitats: Sandbanks which are slightly covered by sea water all the time; Subtidal sandbanks (H1110) Estuaries (H1130) Mudflats and sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats (H1140) Coastal lagoons* (H1150) *Salicornia* and other annuals colonising mud and sand; Glasswort and other annuals colonising mud and sand (H1310) Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (H1330)	SIP Site description: The Humber Estuary 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. Other notable habitats include a range of sand dune types in the outer estuary, together with sub-tidal sandbanks and coastal lagoons. As salinity declines upstream tidal reedbeds and brackish saltmarsh communities fringe the estuary. Significant fish	• 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 ¬	

[59] https://humbernature.co.uk/humber-estuary/estuary-management

	Embryonic shifting dunes (H2110) Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram (H2120) Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland* (H2130) Dunes with *Hippophae rhamnoides*; Dunes with sea-buckthorn (H2160) (*Priority habitat in Annex I of Habitats Directive) N.B. This is a European Marine Site Species: *Petromyzon marinus;* Sea lamprey (S1095) *Lampetra fluviatilis*; River lamprey (S1099) *Halichoerus grypus*; Grey seal (S1364)	species include river lamprey and sea lamprey which migrate through the estuary to breed in the rivers of the Humber catchment. Grey seals come ashore in autumn to form large breeding colonies on the sandy shores of the south bank around Donna Nook. The estuary is used by many species of wintering and passage waterbirds attracted by the different habitats of the SPA. For example, the sandy sediments of the outer estuary typically attract knot and grey plover, while waterfowl prefer the wetland zones of the upper estuary. At high tide, large mixed flocks congregate in key roost sites which are at a premium due to the combined effects of extensive land claim, coastal squeeze and lack of grazing marsh and grassland on both banks of the estuary. In summer, the site supports	The populations of qualifying species; and, • The distribution of qualifying species within the site. Source: Natural England 2018[61]	to commercial fisheries management in EMSs. Requisite mechanisms are being implemented by North Eastern IFCA and Eastern IFCA. N.B. Commercial fishing activities categorised as 'amber or green' under Defra's revised approach to commercial fisheries in EMSs are being assessed by North Eastern IFCA and Eastern IFCA to determine whether management is required. For activities categorised as 'green', these assessments should take account of any relevant in combination effects with other fishing activities. Direct land take from development - An illegal flood defence has been created on the Hessle foreshore where material has been dumped. Air Pollution – Atmospheric nitrogen deposition exceeds site relevant critical loads. Shooting/scaring - There is unauthorised wildfowling and game bird management in areas such as Haverfield Quarries. Investigation is needed to understand the extent of the unauthorised wildfowling and the potential impacts on SPA features. Direct impact from third party - Commercial scale collection of Salicornia occurs near Saltfleetby. There was a proposal in 2013 regarding the harvesting of this species. There are management measures in place through 'Codes of Conduct' but these have had limited management success.

[61] https://publications.naturalengland.org.uk/file/6294287600058368

	Part of the Humber Estuary European Marine Site (EMS)[60]	important breeding populations of Bittern, Marsh harrier, Avocet and Little tern. A number of developing managed realignment sites on the estuary are providing replacement habitats which contribute to the variety of habitats available to the bird features.		Inappropriate scrub control - Successional scrub encroachment on grassland and reedbeds at Haverfield Quarries could reduce the likelihood of breeding by the marsh harrier.
Humber Estuary Ramsar Designation: Ramsar Area (ha): 37,987.8 LA: Lincolnshire, East Yorkshire, Northern Lincolnshire, 'Extra-Regio'. Grid ref: Ramsar Site No: 663	Ramsar Criteria: 1, 3, 5, 6, 8 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. 3 - The Humber Estuary Ramsar site supports a breeding colony of grey seals Halichoerus grypus at Donna Nook, the second largest in England.	The Humber Estuary is the largest macro-tidal estuary on the British North Sea coast. It drains a catchment of some 24,240 square kilometres and is the site of the largest single input of freshwater from Britain into the North Sea. It has the second-highest tidal range in Britain (max 7.4 m) and approximately one-third of the estuary is exposed as mud or sand flats at low tide. The inner estuary supports extensive areas of reedbed with areas of mature and developing saltmarsh	Conservation Objectives as above	Factors adversely affecting the site's ecological character: • Disturbance to vegetation through cutting/clearing • Vegetation succession – lack of reedbed management leading to scrub encroachment • Water diversion for irrigation/domestic/industrial use – abstraction causes reduced freshwater input • Overfishing • Pollution – domestic sewage – reduced dissolved oxygen (DO) in River Ouse is barrier to fish migration • Pollution – agricultural fertilisers – reduced DO in River Ouse is barrier to fish migration

[60] https://humbernature.co.uk/humber-estuary/estuary-management

	Dune slacks at Saltfleetby-Theddlethorpe home to most north-easterly breeding site of *Bufo calamita*, natterjack toad in Great Britain. 5 – Waterfowl assemblages of international importance (153,934 individuals) 6 – species/populations at levels of international importance: • European golden plover *Pluvialis apricaria*– representing 2.2% and 3.8% of the passing and wintering *altifrons* subspecies population (respectively); • Red knot *Calidris canutus* – representing 4.1% and 6.3% of the passage and wintering islandica subspecies population (respectively); • Dunlin *Calidris alpine* – representing 1.5% and 1.7% of	backed in places by limited areas of grazing marsh in the middle and outer estuary. On the north Lincolnshire coast the saltmarsh is backed by low sand dunes with marshy slacks and brackish pools. The Estuary regularly supports internationally important numbers of waterfowl in winter and nationally important breeding populations in summer. Source: JNCC, 2008[63]		• Recreational/tourism disturbance – particularly illegal access by motorised recreational vehicles and craft • Coastal squeeze – causing loss of intertidal habitats and saltmarsh due to sea level rise and fixed defences. Source: JNCC 2008[64]

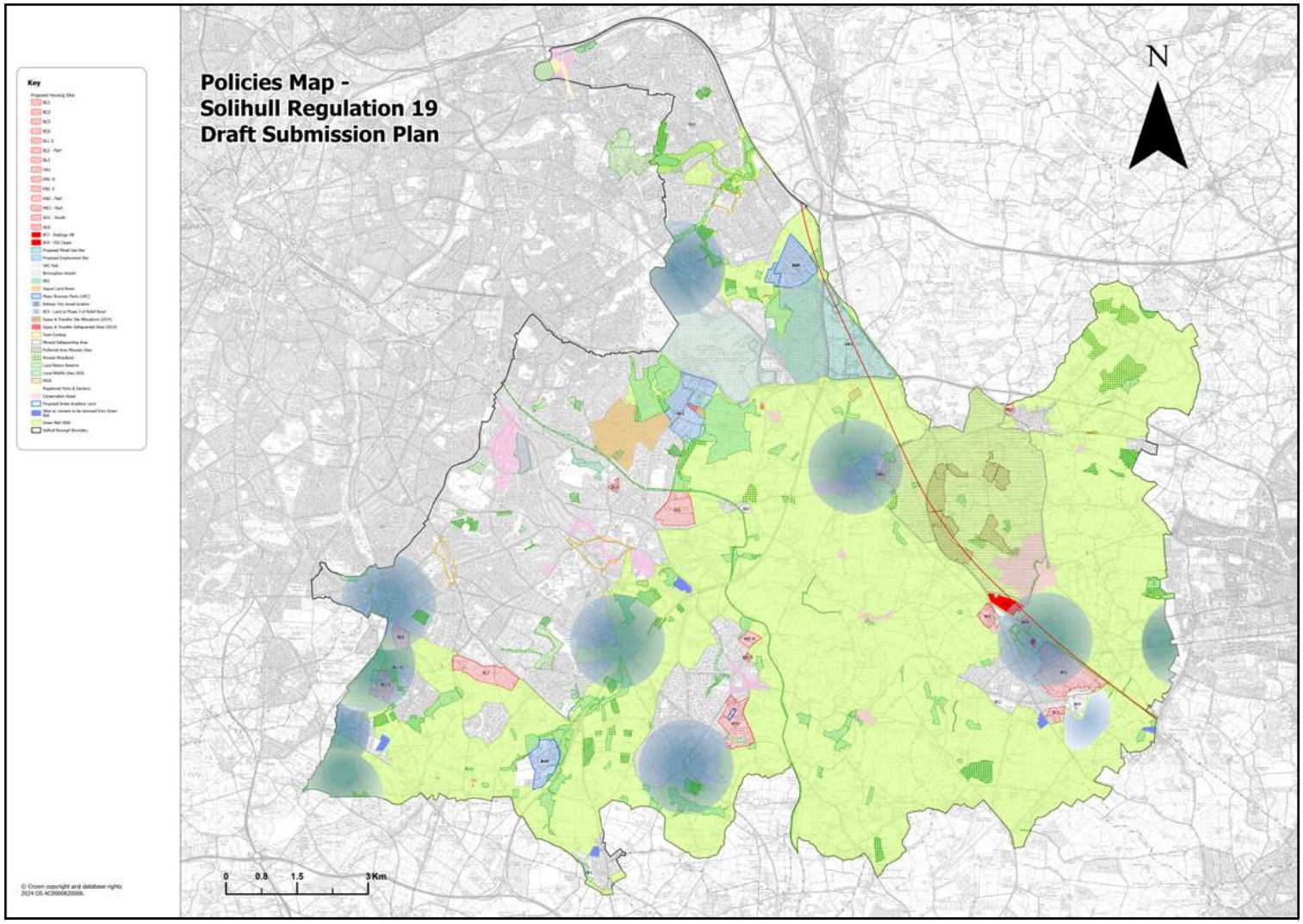
[63] https://jncc.gov.uk/jncc-assets/RIS/UK11031.pdf
[64] Ibid

	the passage and wintering *alpina* subspecies population (respectively); • Black-tailed godwit *Limosa limosa* – representing 2.6% and 3.2% of the passage and wintering *islandic*a subspecies population (respectively); • Bar-tailed godwit *Limosa lapponica* – representing 2.3% of the wintering *lapponica* subspecies population • Common redshank *Tringa tetanus* – representing 1.5% and 3.6% of the passage and wintering *brittanica* subspecies population (respectively); and, • Common shelduck *Tadorna tadorn*a – representing 1.5% of the breeding northwest European population. Part of the Humber Estuary European Marine Site (EMS)[62]			
Elenydd – Mallean SPA	Screened out			

[62] https://humbernature.co.uk/humber-estuary/estuary-management

Elan Valley Woodlands SAC	Screened out			

Appendix 2 – Solihull Draft Local Plan – Map of proposed allocations

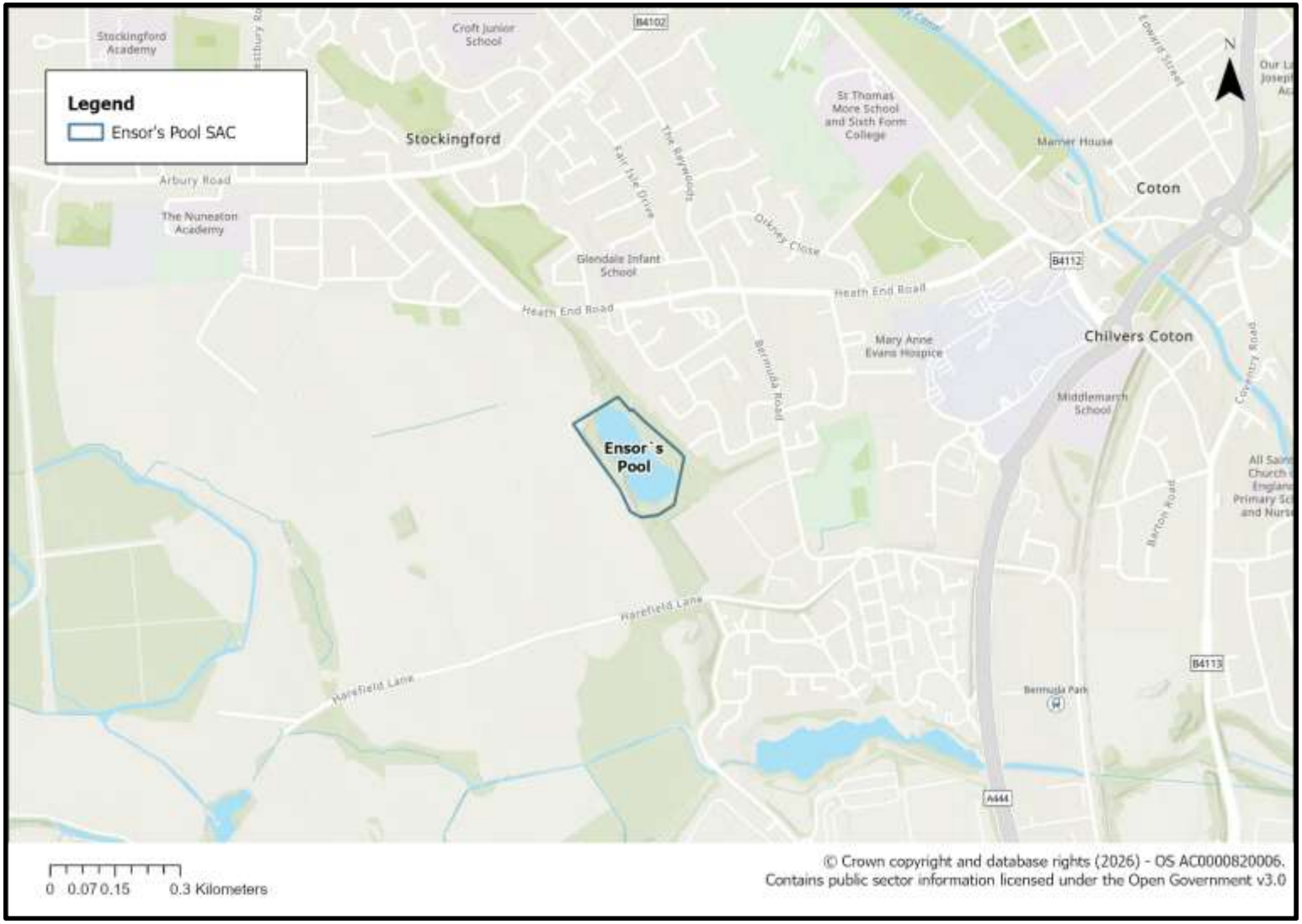


Appendix 3 – Maps of Relevant Habitats Sites

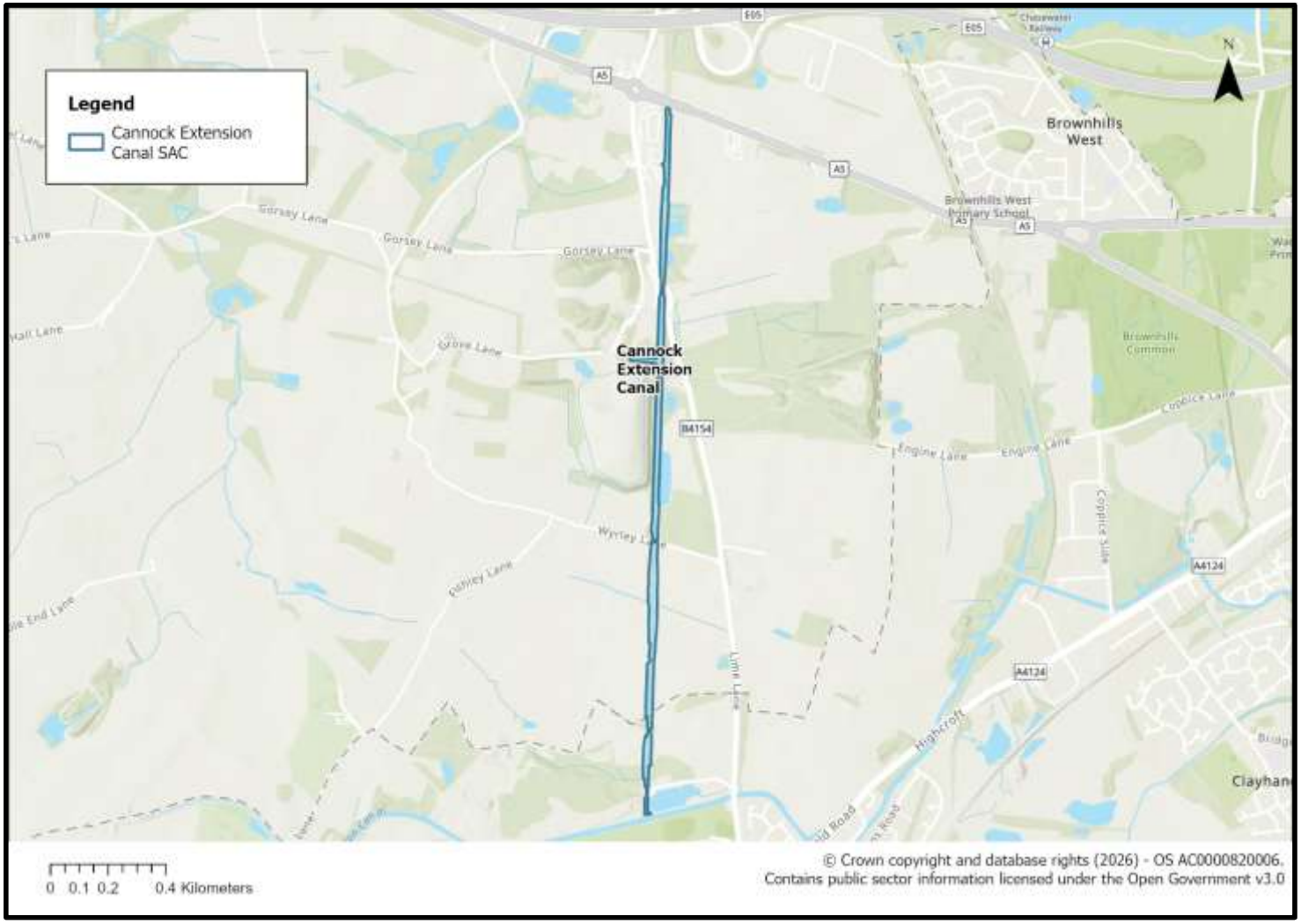
Map 1 – All European Habitats Sites



Map 2 – Ensor's Pool SAC



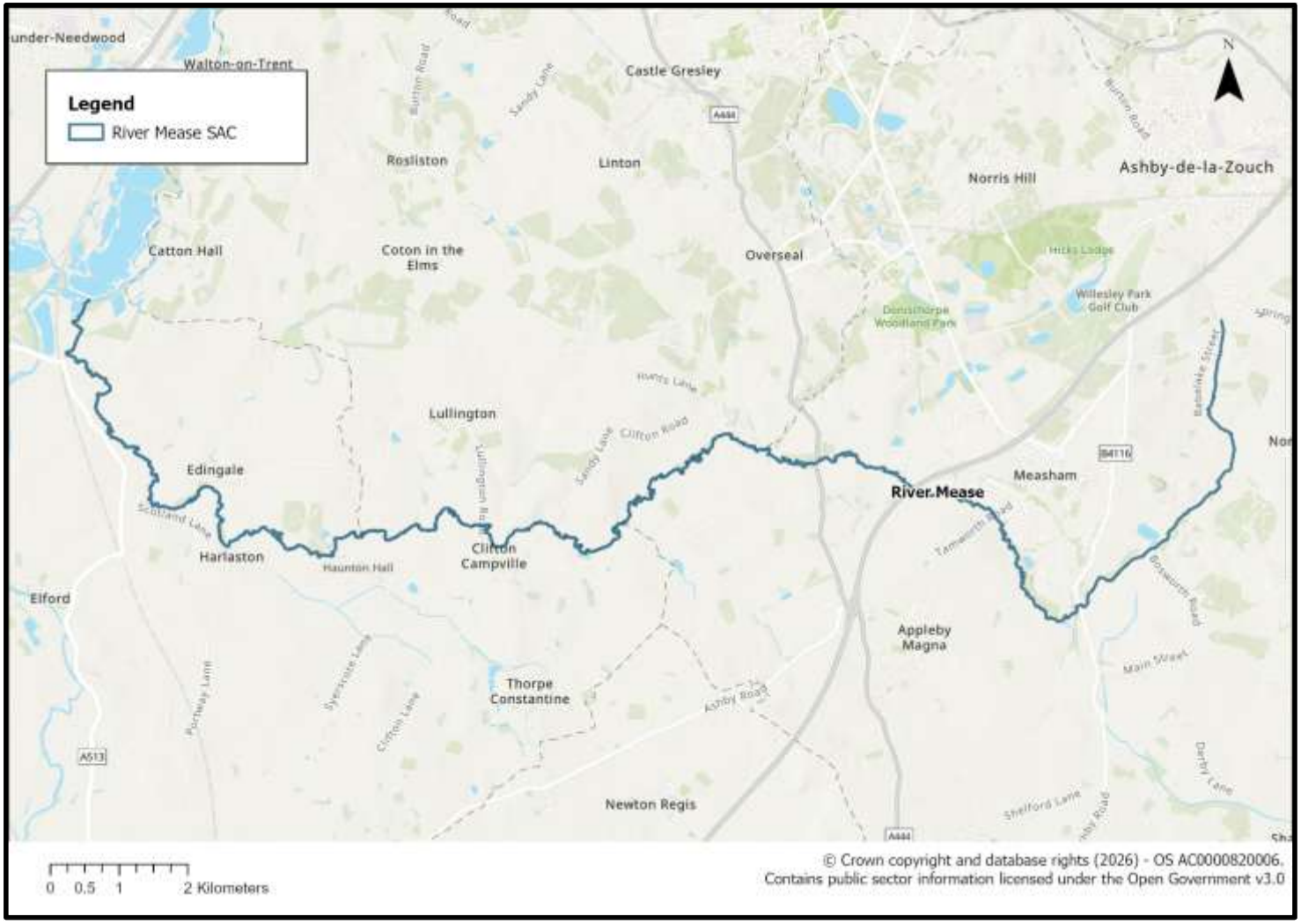
Map 3 - Cannock Extension Canal SAC



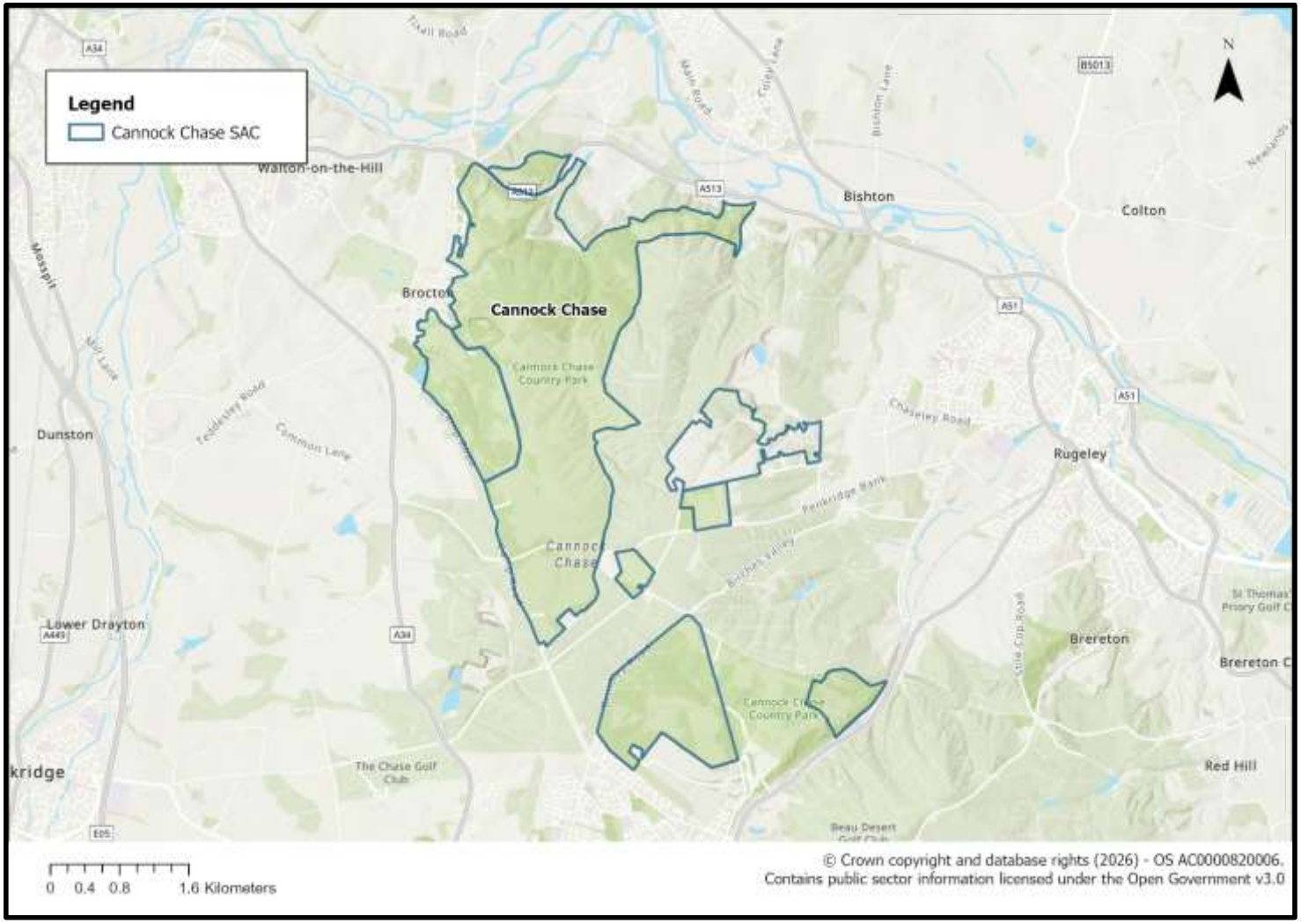
Map 4 - Fens Pool SAC



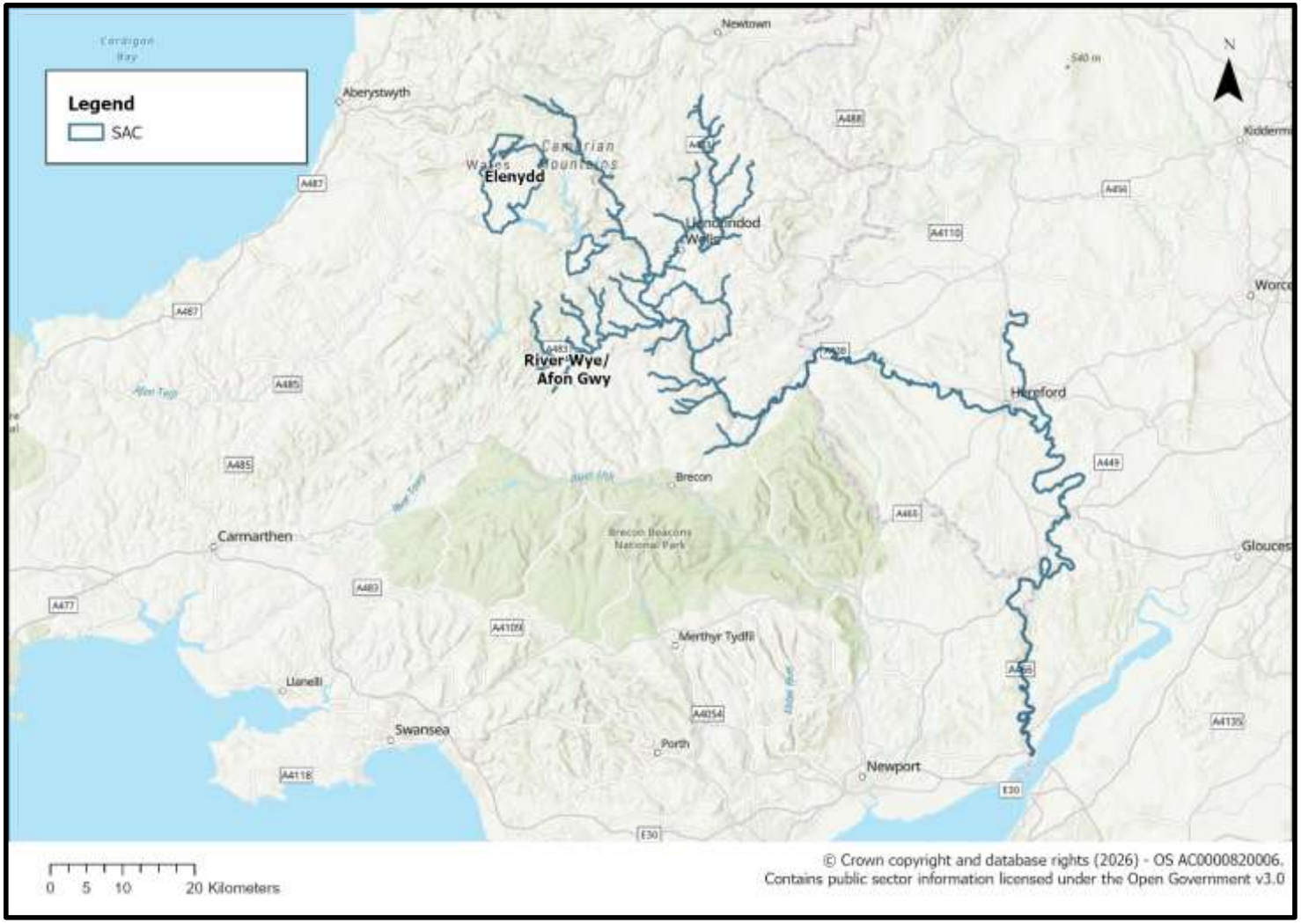
Map 5 - River Mease SAC



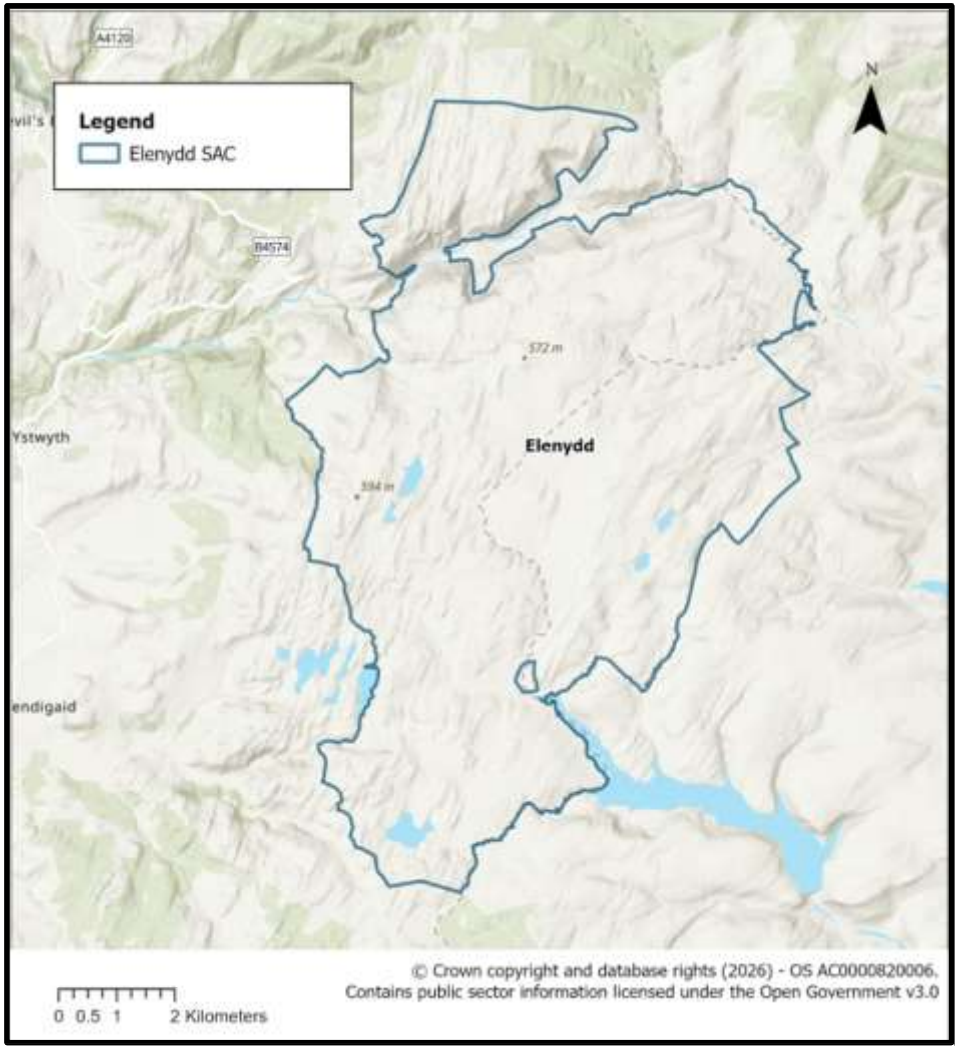
Map 6 - Cannock Chase SAC



Map 7 - River Wye/Afon Gwy SAC (as well as Elenydd SAC)



Map 8 - Elenydd SAC



Map 9 - Humber Estuary European Marine Site including SAC, SPA and Ramsar

