

PEN MARCH WIND FARM

Habitats Regulations Assessment

No Significant Effects Report

Prepared for: **RWE Renewables UK Swindon Ltd**

SLR Ref: 406.02273.00066
Version No: 2
June 2023



Document Control	
Document Properties	
Organisation	RWE Renewables UK Swindon Ltd
Project Name	Pen March Wind Farm
Report Title	HRA No Significant Effects Report
Author(s)	Amy Gill
Draft version/final	V2
Document reference	20230621_406.02273.00066_Pen March_HRA No Significant Effects Report_Issue02

Date	Revision No	Prepared By	Reviewed By	Approved By	Status	Comments
18/10/22	V1	Amy Gill	Duncan Watson	Duncan Watson	Draft	
12/06/23	V2	Amy Gill	Duncan Watson	Duncan Watson	Final	

BASIS OF REPORT

This document has been prepared by SLR Consulting Limited with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with RWE Renewables UK Swindon Ltd (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

1.0 INTRODUCTION	1
1.1 The HRA Process	1
1.2 Purpose and Scope of this Report.....	2
1.3 Evidence of Technical Competence and Experience	3
2.0 RELEVANT LEGISLATION.....	4
2.1 European Nature Directives (Habitats and Birds)	4
2.2 Conservation of Habitats and Species Regulations 2017 (as amended)	4
3.0 HRA: SCREENING METHODOLOGY	5
3.1 Process Outline	5
3.2 Identification of the European Sites that could be Affected by a Project	5
3.3 Identifying In Combination Effects and Other Plans or Projects for Inclusion	6
3.4 Determining Likely Significant Effects	7
3.5 Baseline Data Collation	7
4.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT	9
4.1 Description of the Proposed Development.....	9
4.2 Potential Impacts	9
4.2.1 Construction Phase.....	9
4.2.2 Operational Phase	10
4.2.3 Decommissioning Phase.....	10
5.0 EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE.....	11
6.0 SCREENING ASSESSMENT.....	15
6.1 Bannau Brycheiniog SAC	15
6.1.1 Qualifying Habitats	15
6.1.2 In-Combination Effects.....	15
6.1.3 Conclusion.....	15
6.2 River Usk SAC	15
6.2.1 Qualifying Habitats and Species.....	15
6.2.2 In-Combination Effects.....	15
6.2.3 Conclusion.....	15
6.3 Usk Bat Sites SAC.....	15
6.3.1 Qualifying Habitats	15

6.3.2	Qualifying Species.....	16
6.3.3	In-Combination Effects.....	16
6.3.4	Conclusion.....	16
6.4	Severn Estuary Ramsar Site.....	16
6.4.1	Qualifying Habitats	16
6.4.2	Qualifying Species.....	16
6.4.3	In-Combination Effects.....	17
6.4.4	Conclusion.....	17
7.0	CONCLUSION.....	18

DOCUMENT REFERENCES

TABLES

Table 5-1 European Sites within the Zone of Influence of the Proposed Scheme	11
--	----

FIGURES

Figure 01: European Sites in Relation to the Site

APPENDICES

Appendix 01: Proposed Scheme Layout

Appendix 02: European Site Standard Data Forms and Information Sheets

1.0 Introduction

SLR Consulting Limited (SLR) was commissioned by RWE Renewables UK Swindon Ltd (RWE) in August 2020 to provide supporting information in respect of a Habitat Regulations Assessment (HRA) for the proposed Pen March Wind Farm ('the Proposed Scheme'), located within the county boroughs of Merthyr Tydfil and Caerphilly in South Wales (approximate central Site Grid Reference: SO 08654 10182).

In accordance with Regulation 63(2) of the Conservation of Habitats and Species Regulations (2017) (as amended) ('the Habitats Regulations') this report provides supporting information in respect of likely significant effects (LSE) on the relevant sites which form part of the 'National Site Network' (NSN).

NSN is a collective term that relates to sites collectively known as European Sites and formally forming part of the Natura 2000 network. These include: Special Areas of Conservation (SACs); candidate Special Areas of Conservation (cSACs); Special Protection Areas (SPAs); and, in accordance with Welsh Government policy, possible SACs (pSACs); potential SPAs (pSPAs); Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on any of the above sites.

The Proposed Scheme is a Development of National Significance (DNS). The Welsh Ministers are the competent authority for the purposes of the Habitats Regulations in relation to applications for DNS. The Welsh Ministers are therefore required to carry out and consult on an Appropriate Assessment (AA) in circumstances where the plan or project is likely to have a significant effect on a European site or a European Marine site.

The information contained within this No Significant Effects Report (NSER) is intended to inform HRA Stage 1: Screening (see Section 1.1 below) in respect of the Proposed Scheme. It is provided in accordance with relevant guidance set out by the Planning Inspectorate (PINS)¹.

1.1 The HRA Process

HRA is a multi-stage process which determines LSE and (where appropriate) assesses adverse impacts on the integrity of a European site or sites and considers derogations. Current Government guidance² identifies a three-stage process. It may not be necessary to complete all stages, depending on what conclusion is reached at each stage. As set out in the guidance, the stages are:

- "Stage 1. Screening – check if the proposal is likely to have a significant effect on the European site(s)'s conservation objectives, both alone or in combination with other plans or projects. At this stage, and in accordance with case law (People Over Wind and Sweetman v Coillte Teoranta (Case C-323/17)), mitigation measures proposed for the purpose of avoiding or minimising risk to a European site should not be taken into account. If a conclusion of no LSE is reached for all European sites and their qualifying features considered, it is not necessary to proceed to the next stages of HRA.
- Stage 2. Appropriate assessment (AA) – assess the implications of the proposal for the qualifying features of the European site(s), in view of the site(s)' conservation objectives, and identify ways to avoid or minimise any effects.
- Stage 3. Derogation – consider if proposals that would have an AEoI of a European site(s) qualify for an exemption. There are three tests to this stage to be followed in order: consider alternative solutions;

¹ The Planning Inspectorate. (2019). *Developments of National Significance. Appendix 4: Habitats Regulations Assessment*.

² Department for Environment, Food & Rural Affairs, Natural England, Welsh Government and Natural Resources Wales. (2021). *Habitats regulations assessments: protecting a European site*. <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

consider IROPI; and secure compensatory measures. Each test must be passed in sequence for a derogation to be granted.”

Stage 1 of the HRA process (screening), which represents the subject of this report, is further described in Section 3.1.

1.2 Purpose and Scope of this Report

The purpose of this report is to inform HRA Stage 1: Screening in respect of the Proposed Scheme.

The scope of this report is based on PINS guidance¹. Whilst there is no prescribed format for the NSER or for the reporting of the outcomes of the screening stage, the PINS guidance states that the applicant’s HRA Stage 1 screening information, to be presented in the NSER, should include:

- “a detailed description of the development, processes, timings, and method of work proposed as part of the DNS;
- details of the methodology used to determine which European sites should be included within the assessment, plus definition of and justification for the scope of the assessment;
- a plan and description of the European site(s) potentially affected, including a description of all qualifying features;
- an appraisal of the potential effects resulting from the construction and operation of the project (e.g. noise) and the likely significant effect on the European site(s) and qualifying features (e.g. disturbance to bird species);
- an outline and interpretation of the baseline data collected to inform the findings;
- an appraisal of the effects of any other plans or projects which, in combination with the proposed development, might be likely to have a significant effect on the European site(s). The scope of that appraisal should be well-defined and agreed with the local authorities and NRW [Natural Resources Wales];
- an evaluation of the potential for the scheme to require other consents requiring consideration of LSE by different competent authorities (other than secondary consents which form part of the DNS application);
- a statement which identifies (with reasons) whether significant effects on European sites in other EEA States are considered to be likely; and
- evidence of agreement between the applicant and NRW on the scope, methodologies, interpretation, and conclusions of the screening assessment (such as copies of correspondence, Evidence Plans, or Statements of Common Ground)”.

Paragraph 4.4 of the PINS guidance states that ‘HRA matrices should be appended to or included in the applicant’s NSER’. However, consultation with Planning and Environment Decisions Wales (PEDW)³ confirmed that it is not a statutory requirement to use a matrix to support a NSER. It was also noted that PEDW does not publish a template for HRA Screening Matrices, but there are examples available online from other organisations, such as PINS. Review of the latest PINS HRA guidance for Nationally Significant Infrastructure Projects (NSIPs)⁴ indicates that PINS no longer requires matrices to be included as part of HRA documents and template matrices

³ Email from Robert Sparey (PEDW) to Amy Gill (SLR) dated 20th September 2022.

⁴ PINS. (2022). *Advice Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects*. Republished August 2022 (version 9). <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-ten/>

are no longer available on the PINS website. Based on the above, matrices have not been included as part of this report.

1.3 Evidence of Technical Competence and Experience

This report was written by Amy Gill BSc (Hons), a Senior Field Ecologist at SLR and Qualifying member of CIEEM, with three years of ecological consultancy experience.

This report was reviewed by Duncan Watson BSc (Hons) MSc CEnv MCIEEM, a Technical Director at SLR with over 24 years of professional ecological experience.

2.0 Relevant Legislation

2.1 European Nature Directives (Habitats and Birds)

Previously the Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), served as the basis for the designation of Special Areas of Conservation. Similarly, Special Protection Areas were classified under the Birds Directive (Council Directive 2009/147/EEC on the Conservation of Wild Birds). The provisions for designation of these sites have now been incorporated into national legislation and collectively these sites are referred to as the UK National Site Network (NSN) (previously referred to as the Natura 2000 network). In general terms, these sites are considered to be of exceptional importance for rare, endangered or vulnerable habitats and species within the UK's territory (and previously within Europe). Collectively, the sites designated for nature conservation under the Habitats and Birds Directives are referred to as 'European sites'.

Following the UK's withdrawal from the EU on 31st of January 2020; the legislation underpinning the protection of European sites has been updated. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 effectively carries over and transposes EU law on this matter into UK domestic law.

2.2 Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) transpose the requirements of Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law and under this legislation the assessment of the implications for European sites or Habitats Regulations assessment is required where plans or projects have the potential to affect European sites and where those projects are not connected with or necessary to the management of such sites.

In such cases, Regulation 63 of the Habitats Regulations, requires that the competent authority makes an Appropriate Assessment of the implications for the European site or sites in view of a site's conservation objectives, before deciding to undertake, or give consent, permission or other authorisation for, a plan or project which:

- a. is likely to have a significant effect on a European site, either alone or in combination with other plans and projects; and
- b. is not directly connected with or necessary to the management of that site.

A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable them to determine whether an appropriate assessment is required.

3.0 HRA: Screening Methodology

This section of the report sets out the methods of gathering the information to support the preparation of this report.

3.1 Process Outline

It is the purpose of the HRA screening stage to determine, on a precautionary basis, whether a plan or project has the potential to cause a likely significant effect (LSE) on one or more European Sites. Following the precautionary principle, the conservation objectives of a site should prevail where there is uncertainty and harmful effects are assumed in the absence of evidence to the contrary. If an LSE is identified, an Appropriate Assessment is required to determine whether the plan or project alone, or in combination with other plans and projects, will not result in an adverse effect on the integrity of one or more European Site.

The HRA screening stage has been characterised by European Commission (EC) guidance⁵, as a four-step process. These steps are:

- determining whether the project or plan is directly connected with or necessary to the management of the site;
- describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the European Site;
- identifying the potential effects on the European Site;
- assessing the significance of any effects on the European Site”

When each of these steps has been worked through there are two potential outcomes:

1. One or more LSE on designated features of a European Site or Sites are identified, or there is uncertainty about the absence of likely significant effects, and the project requires an Appropriate Assessment (Stage 2); or
2. There is an absence of likely significant effects on designated features of European Sites as there is no pathway by which such effects could occur and therefore there is no requirement for an Appropriate Assessment. This is also known as ‘screening out’ the need for further assessment.

In order to determine whether a plan or project is capable of resulting in one or more LSE on a European Site it is necessary to understand the activities associated with the construction, operation and maintenance or decommissioning (if relevant) of a project and the effects that this may have on designated features of European Sites.

Through the use of this *activity – change – effect* concept, it is possible to identify European Sites (and their qualifying features) that may be subject to LSE through the determination of a series of search parameters (see Section 3.2). These search parameters can then be extended to identify any other plans and projects that require consideration within the assessment of in combination effects.

3.2 Identification of the European Sites that could be Affected by a Project

The European Sites that should be considered within the screening process are those where there is the potential, on a precautionary basis, for an LSE to be identified for the project alone and/or in combination with other plans and projects.

⁵ EC (2001) *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC*.

Key to determining which European Sites are included within this consideration is an understanding of the activities associated with a project, the geographical scale over which changes due to the different activities may be detectable and the types of receptors (in other words designated features) susceptible to them⁶. An effective and efficient way to determine these relationships in a structured and transparent way is through the use of an *activity – change – effect* model.

Central to the identification of European Sites for consideration within the HRA process is the ability to define evidence-based search parameters. To achieve this, the following steps are required:

- Identification of the project activities associated with the construction, operation and maintenance or decommissioning (if applicable) phases that have the potential to result in changes to background environmental parameters (for example land take, disturbance, etc);
- Determination of the changes that could occur as a result of the activities identified;
- Determination of the distance over which these changes may occur based on published literature, outputs from the ecological assessment process and/or professional judgement; and
- Identification of the European Site qualifying features that may be affected by the identified changes.

The outcome of these steps is a series of search parameters based on potential pathways of effect that can then be used to determine both the European Sites for inclusion within the HRA process, due to their physical proximity to the Proposed Scheme, and those linked by way of mobile fauna and/or associated functional habitat.

3.3 Identifying In Combination Effects and Other Plans or Projects for Inclusion

Effects on European Sites may result from a proposed development alone and/or in combination with other plans or projects; these potential cumulative effects are described as ‘in combination effects’ in the Habitats Regulations. Within the published literature the main references that provide relevant and current guidance are:

- PINS (2022). Habitat Regulations Assessment relevant to Nationally Significant Infrastructure Projects.
- PINS (2019) Advice Note 17 Cumulative Effects assessment relevant to nationally significant infrastructure projects.
- EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

These sources have informed the methods used for the in-combination assessment in the case of this report.

The identification of plans and projects to include within the in-combination assessment follows the same methodology as that outlined in Section 3.2 for the identification of European Sites relevant to a project. Key to the inclusion of other plans and projects within the assessment are the spatial and temporal overlaps that may occur due to the scale of potential changes (for example overlaps in the zones of disturbance caused by simultaneous construction activity) or the areas over which potential receptors may travel (for example a bird may pass through several areas where development is proposed when moving between roosting and feeding grounds in or between designated sites).

Following the identification of plans and projects within the search areas, an initial screening is then undertaken to filter out minor proposals (for example extensions to existing dwellings, minor street works, changes of use etc.) with no potential to cause likely significant effects in combination and those with no potential to overlap

⁶ This includes habitats and species that are not designated features but help underpin the conservation objectives of a European site (for example habitats supporting designated features). This is in line with recent case law – Case C-461/17 Holohan v An Bord Pleanala.

with a project due to differing timescales. Those that are to be included within the in-combination assessment are then considered with regard to the identified potential effects.

3.4 Determining Likely Significant Effects

The HRA screening process uses the threshold of LSE to determine whether effects on a European Site should be the subject of further assessment. The Habitats Regulations do not define the term LSE. However, in the Waddenzee case (Case C-127/02) the European Court of Justice found that an LSE exists if it cannot be excluded on the basis of objective information that the plan or project will have significant effects on the conservation objectives of the site concerned, whether alone or in combination with any other project. The Advocate General's opinion of the Sweetman case (Case C-258/11) further clarifies the position by noting that for a conclusion of an LSE to be made "*there is no need to establish such an effect...it is merely necessary to determine that there may be such an effect*".

Under the Habitat Regulations an effect is likely if:

- 1) it cannot be excluded, in that it is capable of having an effect, on the basis of objective information; and
- 2) it is likely to undermine the site's conservation objectives, after all aspects of the plan or project have been considered alone and in combination with other plans and projects.

A precautionary approach has been taken to the screening process (Stage 1). Only those designated features and European Sites where it can be demonstrated that there is no likelihood of a significant effect occurring (based on the criteria and approach outlined above) have been screened out. This screening assessment does not consider any mitigation measures that are necessary to reduce or avoid LSE on European Sites. This follows the judgement of the Court of Justice of the European Union⁷ (CJEU) where it was concluded that the need for measures to avoid or reduce harmful effects presupposes that there is an LSE, and consequently consideration at Stage 2 is required. It is also consistent with PINS (2019) guidance¹, which states that "the screening stage must be undertaken on a precautionary basis without regard to any proposed integrated or additional avoidance or reduction measures".

Within the screening assessment, each potential effect is considered using information from surveys undertaken to inform the Environmental Impact Assessment (EIA) process, published literature (where available), other available baseline data, modelling outputs, the project design and professional judgement (informed by CIEEM, 2022⁸), as appropriate. Where a potential effect has been identified but no likely significant effect is predicted the evidence and reason for reaching this conclusion is provided.

3.5 Baseline Data Collation

Baseline data for European sites were obtained from the following sources:

- MAGIC website⁹;
- Natural Resources Wales website¹⁰; and
- Lle Geo-Portal for Wales¹¹.

⁷Case C-323/17 People Over Wind v Coillte Teoranta.

⁸ Chartered Institute of Ecology and Environmental Management (2022) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal. April 2022 Update.

⁹ <https://magic.defra.gov.uk/magicmap.aspx>

¹⁰ <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/>

¹¹ <https://lle.gov.wales/catalogue?lang=en&c=2007>

Baseline information regarding the habitats and species within the site and surrounding area has been gathered through a review of data collected to inform the EIA, as reported in the Pen March Wind Farm Environmental Statement (EC) Chapter 7: Ecology and Chapter 8: Ornithology.

4.0 Description of the Proposed Development

4.1 Description of the Proposed Development

The Proposed Scheme will consist of the following principal components:

- Up to six three-bladed horizontal axis wind turbines up to 180m to blade tip height. Each turbine has an internal transformer and aviation lighting.
- Wind turbine foundations and hardstanding areas which will include crane hardstanding areas and laydown / storage areas.
- An electrical substation and control building compound.
- New site access off Common Road and associated bell mouth junction.
- Battery storage facilities.
- On-site access tracks, passing places, and turning heads.
- Two gas pipeline crossings and two watercourse crossings.
- Underground power cables (and fibre optic communication cables) linking the wind turbines and the on-site electrical substation and control building.
- A main temporary construction and storage compound with associated lay down areas near to the site entrance.
- Construction working areas associated with turbine locations and access tracks which will be restored after construction is complete.
- Off-site works to enable the movement of abnormal loads during construction (such as over-run areas and temporary modifications to street furniture etc).
- Habitat Management Area.

A plan showing the Proposed Scheme layout and site boundaries is provided in Appendix 01. Further details of the Proposed Scheme are provided in the Pen March Wind Farm ES Chapter 3: Proposed Scheme.

4.2 Potential Impacts

Potential effects on important ecological and ornithological features are assessed in detail within the Pen March Wind Farm ES, Chapter 7: Ecology and Chapter 8: Ornithology. The following potential effects have been identified and assessed within the ES and are therefore considered here:

4.2.1 Construction Phase

- Habitat loss: Construction of turbine bases, access tracks and other structures, including the substation and battery storage area, would lead to permanent and temporary habitat loss/damage.
- Sedimentation or other pollution of watercourses: From construction activities and vehicular traffic.
- Killing or injury of fauna or damage to active nests: During construction and initial habitat removal. If protected, this may represent an offence under the relevant legislation.
- Disturbance/ displacement of fauna: During the construction stage of the proposed development, the potential effects of associated noise and visual disturbance could lead to the temporary displacement or disturbance of faunal species. If protected, this may represent an offence under the relevant legislation.

4.2.2 Operational Phase

- Disturbance/Displacement: The operation of wind turbines and battery storage, and associated human activities for maintenance purposes, has the potential to cause disturbance and displace fauna.
- Barrier effects due to the operation of wind turbines (birds).
- Environmental incidents and accidents: Incidents are possible during wind farm maintenance, although the potential for effects will be significantly lower than during construction.
- Mortality of birds and bats: Due to collision with turbines or barotrauma (bats), including collisions resulting from the use of aviation lighting.

4.2.3 Decommissioning Phase

- As for construction but excluding permanent habitat loss.

5.0 European Sites within the Zone of Influence

The 'zone of influence' for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the Site, for example, where there are ecological or hydrological links beyond the Site. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2022).

Using professional judgement it was initially considered that a 10km radius from the Site was appropriate as a potential zone of influence for the project. Consideration was also given to possible effects on hydrologically connected European Sites located downstream from the Site but beyond the 10km buffer. However, there are no hydrologically connected European Sites located downstream of the Site. The Severn Estuary Ramsar Site was subsequently added to the list of European Sites potentially lying within the zone of influence for the project, following comments received from NRW during the EIA scoping process.

With respect to the Severn Estuary Ramsar site, NRW stated in their EIA scoping response (dated 3rd July 2020) that there is evidence that gulls from breeding colonies at Flat Holm and Steep Holm, which lie within the Severn Estuary SPA and Ramsar site, may forage as far inland as the Site. Breeding lesser black-backed gulls (*Larus fuscus*) are a qualifying feature for the Severn Estuary Ramsar site.

With the exception of the Severn Estuary Ramsar site, NRW stated in their EIA scoping response: "We agree with the approach of considering the potential for impacts on designated sites within a 10km radius of the site of the proposed development."

Several attempts were made to consult further with NRW, under their Discretionary Advice Service (DAS), to discuss matters arising in their EIA scoping response, including comments relating to the Severn Estuary Ramsar site¹². Unfortunately, NRW was unable to respond to these requests due to lack of available resources. Figure 01 shows the location of European Sites within a 10km radius of the Site, plus the Severn Estuary Ramsar Site. Standard data forms and information sheets for all European Sites within the zone of influence are included in Appendix 02.

Table 5-1 provides details of the relevant sites identified within the zone of influence.

Table 5-1 European Sites within the Zone of Influence of the Proposed Scheme

Site Name and Designation	Designated Site Area (ha)	Qualifying feature(s)	EU Code	Approximate Distance and Direction from the Site (km)
Bannau Brycheiniog SAC	268.63	Annex I habitats that are a primary reason for selection of this site: • Calcareous rocky slopes with chasmophytic vegetation; and • Siliceous rocky slopes with chasmophytic vegetation.	UK0030096	9.1 NW

¹² Letter dated 25th August 2020 and emails dated 24th February 2021, 31st March 2021, 5th May 2021, 6th August 2021 and 7th January 2022.

Site Name and Designation	Designated Site Area (ha)	Qualifying feature(s)	EU Code	Approximate Distance and Direction from the Site (km)
		Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • European dry heaths; and • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.		
River Usk SAC	967.97	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation. Annex II species that are the primary reason for the selection of this site: • Allis shad (<i>Alosa alosa</i>); • Twaite shad (<i>Alosa fallax</i>); • Bullhead (<i>Cottus gobio</i>); • River lamprey (<i>Lampetra fluviatilis</i>); • Brook lamprey (<i>Lampetra planeri</i>); • Otter (<i>Lutra lutra</i>); • Sea lamprey (<i>Petromyzon marinus</i>); and • Atlantic salmon (<i>Salmo salar</i>).	UK0013007	9.2 NE
Usk Bat Sites SAC	1,686.025	Annex II species that are the primary reason for the selection of this site: • Lesser horseshoe bat (<i>Rhinolophus hipposideros</i>). Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Blanket bogs; • <i>Tilio-Acerion</i> forests of slopes, screes and ravines; • Calcareous rocky slopes with chasmophytic vegetation; • Caves not open to the public;	UK0014784	7.4 NE

Site Name and Designation	Designated Site Area (ha)	Qualifying feature(s)	EU Code	Approximate Distance and Direction from the Site (km)
		- Degraded raised bogs still capable of natural regeneration; - European dry heaths.		
Severn Estuary Ramsar Site	73,715.4 ¹³	Qualifying interest features of the Severn Estuary RAMSAR: - Criterion 1: qualifies due to immense tidal range (second-largest in world), this affects both the physical environment and biological communities. - Criterion 3: Qualifies due to its unusual estuarine communities, reduces diversity and high productivity. - Criterion 4: qualifies as it is important for the run of migratory fish between sea and river via estuary. Species include Atlantic salmon, sea trout (<i>Salmo trutta</i>), sea lamprey, river lamprey, allis shad, twaite shad, and European eel (<i>Anguilla anguilla</i>). - Criterion 5: qualifies as it supports a waterfowl assemblage of international importance - (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl). - Criterion 6: qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. Species with peak counts in winter - at designation include: - Tundra/Bewick's swan (<i>Cygnus columbianus bewickii</i>) - Greater /European white-fronted goose (<i>Anser albifrons albifrons</i>) - Dunlin (<i>Calidris alpina alpina</i>)	UK9015022	32.7 SE

¹³ Overall area of the European and International Conservation Designations for the Severn Estuary.

Site Name and Designation	Designated Site Area (ha)	Qualifying feature(s)	EU Code	Approximate Distance and Direction from the Site (km)
		○ Common redshank (<i>Tringa totanus</i>) ○ Common shelduck (<i>Tadorna tadorna</i>) ○ Gadwall (<i>Anas strepera</i>) ● Populations identified subsequent to designation: ○ Ringed plover (<i>Charadrius hiaticula</i>) (spring/autumn) ○ Eurasian teal (<i>Anas crecca</i>) (winter) ○ Northern pintail (<i>A. acuta</i>) (winter) ○ Lesser black-backed gull (breeding) ● Criterion 8: qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.		

6.0 Screening Assessment

6.1 Bannau Brycheiniog SAC

6.1.1 Qualifying Habitats

As the nearest part of the SAC is 9.1km northwest of the Site, there is no potential for loss of qualifying habitats during construction of the Proposed Scheme.

As there is no hydrological connection between the SAC and the Site, there is no potential for the qualifying habitats to be damaged by sedimentation or pollution during construction, operation or decommissioning of the Proposed Scheme.

6.1.2 In-Combination Effects

As there is no potential for any of the qualifying features to be affected by the Proposed Scheme considered alone, there is no potential for in-combination effects.

6.1.3 Conclusion

The outcome of screening is that no LSE have been identified for Bannau Brycheiniog SAC as a result of the Proposed Scheme.

6.2 River Usk SAC

6.2.1 Qualifying Habitats and Species

As the nearest part of the SAC is 9.2km northeast of the Site, there is no potential for loss of qualifying habitats or habitats used by the qualifying species during construction of the Proposed Scheme.

As there is no hydrological connection between the SAC and the Site, there is no potential for the qualifying habitats or species to be affected by sedimentation or pollution during construction, operation or decommissioning of the Proposed Scheme.

6.2.2 In-Combination Effects

As there is no potential for any of the qualifying features to be affected by the Proposed Scheme considered alone, there is no potential for in-combination effects.

6.2.3 Conclusion

The outcome of screening is that no LSE have been identified for River Usk SAC as a result of the Proposed Scheme.

6.3 Usk Bat Sites SAC

6.3.1 Qualifying Habitats

As the nearest part of the SAC is 7.4km northeast of the Site, there is no potential for loss of qualifying habitats during construction of the Proposed Scheme.

As there is no hydrological connection between the SAC and the Site, there is no potential for the qualifying habitats to be damaged by sedimentation or pollution during construction, operation or decommissioning of the Proposed Scheme.

6.3.2 Qualifying Species

One of the SAC qualifying features is the population of lesser horseshoe bats. Core Sustenance Zones represent the area surrounding a communal bat roost within which habitat availability and quality will have significant influence on the resilience and conservation status of the colony using the roost¹⁴. The Core Sustenance Zone, as advised by the Bat Conservation Trust, for lesser horseshoe bats is 2km; therefore, as the Site is located 7.4km away, the Proposed Scheme is unlikely to affect this population.

Lesser horseshoe bats are considered a low collision risk species in respect of wind turbines¹⁵. Additionally, there were no records of lesser horseshoe bat within the Site in surveys conducted in 2019 and 2020.

Based on the above, lesser horseshoe bats from the SAC population are not likely to be affected by disturbance during construction, operation or decommissioning or mortality due to collision with turbines or barotrauma during operation of the Proposed Scheme.

6.3.3 In-Combination Effects

As there is no potential for any of the qualifying features to be affected by the Proposed Scheme considered alone, there is no potential for in-combination effects.

6.3.4 Conclusion

The outcome of screening is that no LSE have been identified for Usk Bat Sites SAC as a result of the Proposed Scheme.

6.4 Severn Estuary Ramsar Site

6.4.1 Qualifying Habitats

As the nearest part of the Ramsar site is over 32km southeast of the Site, there is no potential for habitat loss during construction of the Proposed Scheme.

As the nearest part of the Ramsar is over 32km from the Site and is separated from it hydrologically by parts of the Bristol Channel there is no potential for qualifying habitats to be damaged by sedimentation or pollution during construction, operation or decommissioning of the Proposed Scheme.

6.4.2 Qualifying Species

Given the intervening distance (over 32km) the only qualifying species that could potentially be affected by the Proposed Scheme is lesser black-backed gull. In their EIA scoping response, NRW stated that there is evidence that gulls from breeding colonies at Flat Holm and Steep Holm may forage as far inland as the Site.

Gulls were recorded as secondary species during breeding and non-breeding vantage point (VP) surveys between April 2019 and March 2021 (see ES Technical Appendices 8.1-8.4 for further details). In accordance with current NatureScot guidance¹⁶ this means that a summary of observations was recorded at the end of each five-minute period during VP watches to provide an index of flight activity within the site.

¹⁴ Bat Conservation Trust (2016) *Core Sustenance Zones: Determining zone size*. Bat Conservation Trust.

¹⁵ NatureScot, Natural England, Natural Resources Wales, RenewableUK, Scottish Power Renewables, Ecotricity Ltd, University of Exeter & Bat Conservation Trust (2021) *Bats and Onshore Wind Turbines: Survey, Assessment and Mitigation*. Updated revision. NatureScot.

¹⁶ SNH (2017). *Recommended Bird Survey Methods to Inform Impact Assessment of Onshore Wind Farms*. Version 2.

During breeding surveys in 2019 and 2020, lesser black-backed gull was recorded during only 5% of five-minute recording periods in both years with a peak count of six and 45 birds respectively. Furthermore, lesser black-backed gulls were noted to be breeding on factory roofs to the south of the A465 (just south of the Site) and most of the activity that was recorded concerned gulls moving between the factories and the water bodies in the south of the Site, away from the proposed turbines.

Based on the above, there is no realistic potential for lesser black-backed gulls from the Severn Estuary Ramsar site population being affected by habitat loss, disturbance, barrier effects or collision mortality as a result of the construction, operation or decommissioning of the Proposed Scheme.

6.4.3 In-Combination Effects

As there is no potential for any of the qualifying features to be affected by the Proposed Scheme considered alone, there is no potential for in-combination effects.

6.4.4 Conclusion

The outcome of screening is that no LSE have been identified for Severn Estuary Ramsar as a result of the Proposed Scheme.

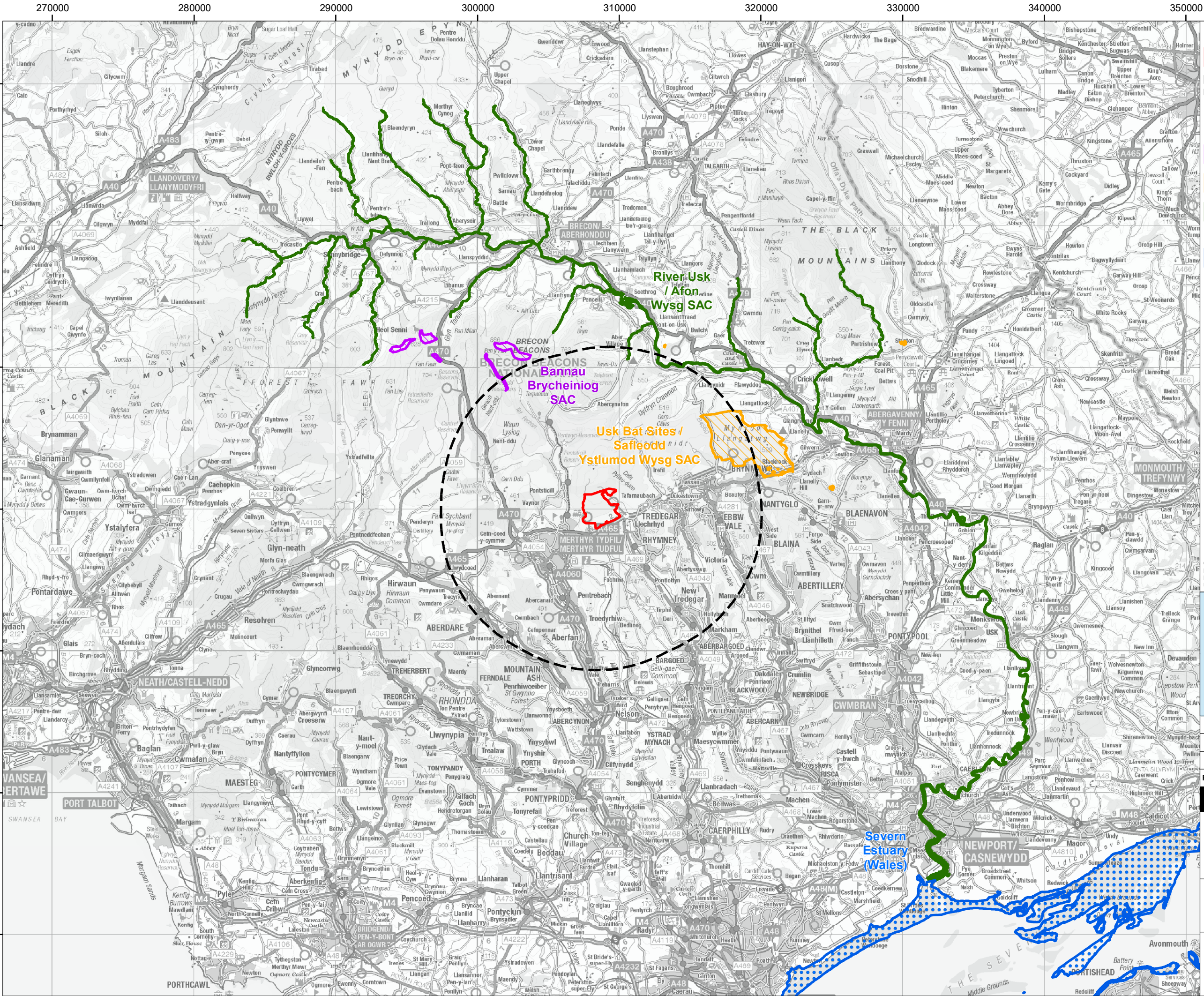
7.0 Conclusion

The screening exercise (Stage 1 of the HRA process) for the proposed development has considered whether effects upon European Sites are possible, either alone or in combination with other plans or projects and considered whether any such effects are likely to be significant.

The conclusion which has been reached is that no LSE would arise from the Proposed Scheme, either alone or in combination and as such an Appropriate Assessment (Stage 2 of the HRA process) is not required.

FIGURE 01

European Sites in Relation to the Site



Legend:

- Pen March Site Boundary
- Pen March Site Boundary 10 km Buffer
- Ecological Designation**
- Special Areas of Conservation (SAC)**
- Bannau Brycheiniog
- Usk Bat Sites / Safleodd Ystlumod Wysg
- River Usk / Afon Wysg
- Ramsar**
- Severn Estuary (Wales)

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter



Rev	Date	Description	Drn	Chk	App
2	19/06/2023	Second Revision	CME	SH	CM
1	18/10/2022	First Revision	PW	Chk	CM

Pen March Wind Farm

RWE

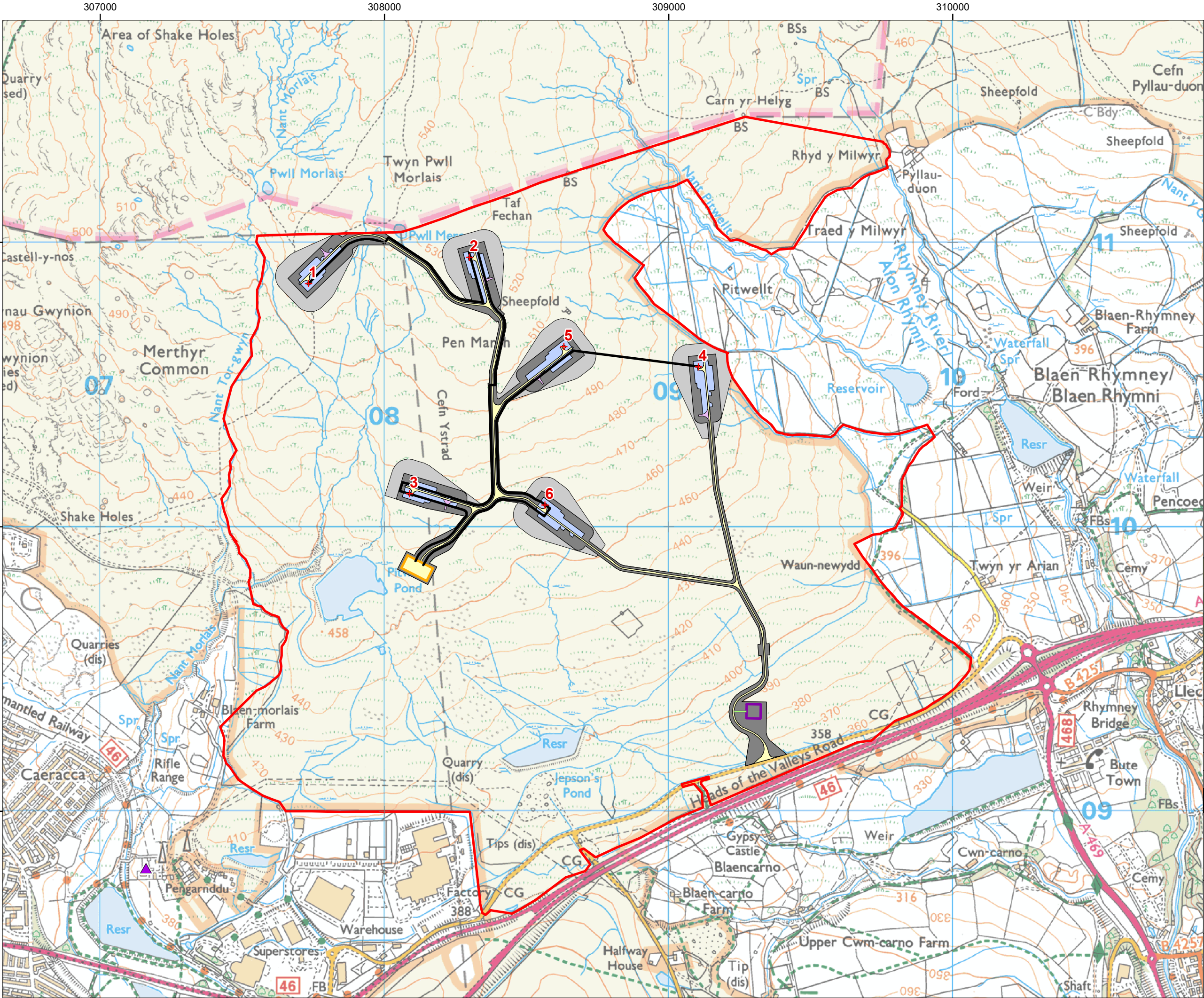
TITLE: Figure 01:
European Sites in Relation to the Site

0 2 4
Kilometres
SCALE: 1:250,000 @ A3

REV 02

APPENDIX 01

Proposed Scheme Layout



- Legend:
- Pen March Site Boundary
 - Proposed Turbine Location
 - Grid Connection Point
 - Construction Compound Access Track
 - Cables
 - Electrical and Control Building Compound with Battery Storage
 - Construction Compound
 - Access Track
 - Turning Heads
 - Worst-case Pad area
 - Indicative Construction Working Area
 - Micrositing Area

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter



04	09/05/2023	Boundary and layout update	NH	PT	VR
03	01/11/2022	Legend edit (Substation)	NH	PT	VR
02	25/08/2022	legend terminology	NH	PT	VR
01	03/08/2022	Earth Cables Removed	DL	PT	VR
00	01/08/2022	First Draft	NH	PT	VR
Rev	Date	Description	Drm	Chk	App

Pen March Wind Farm



TITLE: Figure 3.1:
The Proposed Scheme

0

50

100

200

300

400

Metres

SCALE: 1:12,500 @ A3

N

E

S

W

REV 04

APPENDIX 02

European Site Standard Data Forms and Information Sheets

STANDARD DATA FORM for sites within the 'UK national site network of European sites'

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 \(2011/484/EU\)](#).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the [SPA homepage](#) and [SAC homepage](#) on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

<https://jncc.gov.uk/>



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE UK0030096
SITENAME Brecon Beacons/ Bannau Brycheiniog

TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code UK0030096	Back to top
----------------------	-----------------------------------	-----------------------------

1.3 Site name

Brecon Beacons/ Bannau Brycheiniog

1.4 First Compilation date 2000-10	1.5 Update date 2015-12
--	-----------------------------------

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough
PE1 1JY

Email:

Date site proposed as SCI: 2000-10

Date site confirmed as SCI: 2004-12

Date site designated as SAC: 2004-12

National legal reference of SAC designation:

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

2. SITE LOCATION

[Back to top](#)

2.1 Site-centre location [decimal degrees]:

Longitude

-3.416944444

Latitude

51.88

2.2 Area [ha]:

268.63

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code

Region Name

UKL2

East Wales

2.6 Biogeographical Region(s)

Atlantic (100.0
%)

3. ECOLOGICAL INFORMATION

3.1 Habitat types present on the site and assessment for them

[Back to top](#)

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
4010 			0.54	0	G	D			
4030 			55.07	0	G	C	C	B	C
6430 			1.05	0	G	C	C	A	C
8210 			33.28	0	G	B	B	A	B
8220 			31.4	0	G	B	C	A	B

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

[Back to top](#)

4.1 General site character

Habitat class	% Cover
N22	24.5
N07	1.9
N09	52.9
N08	20.7
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: basic,sandstone,acidic 2 Terrestrial: Geomorphology and landscape: crags/ledges,escarpment,upland

4.2 Quality and importance

European dry heaths for which the area is considered to support a significant presence. Calcareous rocky slopes with chasmophytic vegetation for which this is considered to be one of the best areas in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares. Siliceous rocky slopes with chasmophytic vegetation for which this is considered to be one of the best areas in the United Kingdom. Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels for which the area is considered to support a significant presence. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
H	J01		B
L	H04		B
M	A04		I
L	K02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
M	D05		I
M	A04		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

4.5 Documentation

The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-lan>

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	34.3	UK04	100.0		

6. SITE MANAGEMENT

6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☒	Yes	Name: BRECON BEACONS/ BANNAU BRYCHEINIOG Link: https://www.naturalresources.wales/media/671043/Brecon%20Beacons%20SAC%20plan%20 Eng .pdf
☐	No, but in preparation	
☐	No	

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the [official European Union guidelines for the Standard Data Form](#) (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glaucio-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophya• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietalia rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robur-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representativity	57
B	Good representativity	57
C	Significant representativity	57
D	Non-significant presence representativity	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code
-----	--	------------------

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the 'UK national site network of European sites'

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 \(2011/484/EU\)](#).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the [SPA homepage](#) and [SAC homepage](#) on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

<https://jncc.gov.uk/>



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE UK0013007
SITENAME River Usk/ Afon Wysg

TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)

1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code UK0013007	Back to top
----------------------	-----------------------------------	-----------------------------

1.3 Site name

River Usk/ Afon Wysg

1.4 First Compilation date 1998-03	1.5 Update date 2015-12
--	-----------------------------------

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee
Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:

Date site proposed as SCI:	1998-03
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2004-12
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

[Back to top](#)

2.1 Site-centre location [decimal degrees]:

-3.013888889

51.79583333

967.97

0.0

0.0

2.5 Administrative region code and name

Region Name

UKL2	East Wales
UKL1	West Wales and The Valleys

2.6 Biogeographical Region(s)

Atlantic (100.0%)

3. ECOLOGICAL INFORMATION

[Back to top](#)

3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
1130 FI			134.55	0	G	D			
1140 FI			123.9	0	G	D			
1330 FI			29.04	0	M	D			
3260 FI			29.04	0	M	B	C	B	C
9130 FI			4.84	0	G	D			
9180 FI	X		21.3	0	G	D			
91A0 FI			12.58	0	G	D			
91D0 FI	X		2.9	0	G	D			

91E0 B	X		43.56	0	G	D				
-----------	---	--	-------	---	---	---	--	--	--	--

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D	A B C		
						Min	Max				Pop.	Con.	Iso.	Gl
F	1102	Alosa alosa			p				P	DD	C	C	C	C
F	1103	Alosa fallax			p				P	DD	A	B	C	A
I	1092	Austropotamobius pallipes			p				P	DD	D			
F	1163	Cottus gobio			p				P	DD	B	B	C	B
F	1099	Lampetra fluviatilis			p				P	DD	B	A	C	A
F	1096	Lampetra planeri			p				P	DD	B	B	C	A
M	1355	Lutra lutra			p	11	50	i		M	C	B	C	B
I	1029	Margaritifera margaritifera			p				P	DD	D			
F	1095	Petromyzon marinus			p				P	DD	B	B	C	B
M	1303	Rhinolophus hipposideros			p				P	DD	D			
F	1106	Salmo salar			p				P	DD	A	C	C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

4.1 General site character

[Back to top](#)

Habitat class	% Cover
N03	4.5
N07	3.8
N14	2.0
N16	10.1
N02	26.8
N08	3.4
N23	2.1
N06	37.9
N09	8.0
N10	1.4
Total Habitat Cover	99.99999999999999

Other Site Characteristics

1 Terrestrial: Soil &
 Geology: alluvium, mud, nutrient-rich, limestone, basic, neutral, shingle, sandstone, acidic, peat, clay, nutrient-poor, sediment
 Terrestrial: Geomorphology and landscape: valley, floodplain, coastal, lowland, upland, island
 3 Marine:
 Geology: mud
 4 Marine: Geomorphology: estuary

4.2 Quality and importance

Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation for which the area is considered to support a significant presence. Petromyzon marinus for which this is considered to be one of the best areas in the United Kingdom. Lampetra fluviatilis for which this is considered to be one of the best areas in the United Kingdom. Lampetra planeri for which this is considered to be one of the best areas in the United Kingdom. Alosa alosa for which the area is considered to support a significant presence. Alosa fallax for which this is considered to be one of the best areas in the United Kingdom. Salmo salar for which this is considered to be one of the best areas in the United Kingdom. Cottus gobio for which this is considered to be one of the best areas in the United Kingdom. Lutra lutra for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
M	I01		B
H	A04		I
L	B07		B
H	H01		B
L	H05		O
H	J02		I
M	B02		B
M	J03		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
M	J03		I

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification, T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

4.5 Documentation

The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land>
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

[Back to top](#)

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

[Back to top](#)

6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☒	Yes	Name: RIVER USK / AFON WYSG Link: https://www.naturalresources.wales/media/673384/River_Usk%20SAC%20core%20plan.pdf
☐	No, but in preparation	
☐	No	

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the [official European Union guidelines for the Standard Data Form](#) (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glaucio-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophya• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist scree of the montane to alpine levels (Thlaspietalia rotundifoliae)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robur-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, scree and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representativity	57
B	Good representativity	57
C	Significant representativity	57
D	Non-significant presence representativity	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code
-----	--	------------------

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the 'UK national site network of European sites'

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the [Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 \(2011/484/EU\)](#).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the [SPA homepage](#) and [SAC homepage](#) on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

<https://jncc.gov.uk/>



NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE UK0014784
SITENAME Usk Bat Sites/ Safleoedd Ystlumod Wysg

TABLE OF CONTENTS

- [1. SITE IDENTIFICATION](#)
- [2. SITE LOCATION](#)
- [3. ECOLOGICAL INFORMATION](#)
- [4. SITE DESCRIPTION](#)
- [5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES](#)
- [6. SITE MANAGEMENT](#)
- [7. MAP OF THE SITE](#)

1. SITE IDENTIFICATION

1.1 Type B	1.2 Site code UK0014784	Back to top
----------------------	-----------------------------------	-----------------------------

1.3 Site name

Usk Bat Sites/ Safleoedd Ystlumod Wysg

1.4 First Compilation date 1996-10	1.5 Update date 2017-11
--	-----------------------------------

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee, Monkstone House, City Road,
Peterborough, PE1 1JY

Email:

Date site proposed as SCI: 1996-10

Date site confirmed as SCI: 2004-12

Date site designated as SAC: 2004-12

National legal reference of SAC designation:

Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010
(<http://www.legislation.gov.uk/uksi/2010/490/contents/made>).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

[Back to top](#)

Longitude

-3.176

Latitude

51.824

2.2 Area [ha]:

1686.025

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKL2	East Wales
UKL1	West Wales and The Valleys

2.6 Biogeographical Region(s)

Atlantic

(100.0 %)

3. ECOLOGICAL INFORMATION

[Back to top](#)

3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A B C D	A B C		
						Representativity	Relative Surface	Conservation	Global
3160			6.74		G	D			
4030			338.8		G	C	C	C	C
7110	X		0.22		G	D			
7120			3.4		G	C	C	C	C
7130	X		121.3		G	B	C	B	C
7220	X		0.17		M	D			
7230			1.68		G	D			
8210			8.42		G	C	C	A	C

8310			11.79		G	C	C	B	C
9180	X		50.54		M	C	C	B	C

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A B C D	A B C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1308	Barbastella barbastellus			p				P	DD	D			
M	1323	Myotis bechsteinii			p				P	DD	D			
M	1304	Rhinolophus ferrumequinum			p				P	DD	D			
M	1303	Rhinolophus hipposideros			p	501	1000	i		M	B	B	C	B

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see [reference portal](#))
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

4.1 General site character

[Back to top](#)

Habitat class	% Cover
N11	3.9
N08	32.2
N16	3.4

N10	3.0
N23	4.8
N14	5.3
N09	3.8
N07	40.2
N06	0.4
N22	3.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: nutrient-poor, nutrient-rich, acidic, sedimentary, basic, limestone, sandstone, peat. 2 Terrestrial: Geomorphology and landscape: escarpment, caves, upland, valley, crags/ledges, lowland

4.2 Quality and importance

European dry heaths for which the area is considered to support a significant presence. Degraded raised bogs still capable of natural regeneration for which the area is considered to support a significant presence. Calcareous rocky slopes with chasmophytic vegetation for which the area is considered to support a significant presence. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares. Caves not open to the public for which the area is considered to support a significant presence. Tilio-Acerion forests of slopes, screes and ravines for which the area is considered to support a significant presence. Blanket bogs for which the area is considered to support a significant presence. Rhinolophus hipposideros for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i o b]
L	I02		B
M	I01		B
H	A04		I
M	J02		B
M	E06		I
M	K04		B
H	H04		B

Rank: H = high, M = medium, L = low

Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,

T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions

i = inside, o = outside, b = both

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i o b]
M	D05		I
M	A04		I

4.5 Documentation

The Natural Resources Wales weblink below provides access to information on its designated sites. Detailed information about this Natura 2000 site can be accessed via the Management Plan link provided in Section 6.2. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): <https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-lan>

http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

[Back to top](#)

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	3.9		

6. SITE MANAGEMENT

[Back to top](#)

6.1 Body(ies) responsible for the site management:

Organisation:	Natural Resources Wales
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☒	Yes	Name: USK BAT SITES / SAFLEODD YSTLUMOD WYSG
		Link: https://www.naturalresources.wales/media/674281/Usk%20Bat%20Sites%20Management%20Plan%20Feb%2008.pdf
☐	No, but in preparation	
☐	No	

7. MAP OF THE SITES

[Back to top](#)

INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the [official European Union guidelines for the Standard Data Form](#) (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glaucio-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippophya• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist scree of the montane to alpine levels (Thlaspietalia rotundifoliae)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robur-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, scree and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representativity	57
B	Good representativity	57
C	Significant representativity	57
D	Non-significant presence representativity	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code
-----	--	------------------

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic resources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

Joint Nature Conservation Committee

Monkstone House

City Road

Peterborough

Cambridgeshire PE1 1JY

UK

Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948

Email: RIS@JNCC.gov.uk

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

2. Date this sheet was completed/updated:

Designated: 13 July 1995

3. Country:

UK (England/Wales)

4. Name of the Ramsar site:

Severn Estuary

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. **For RIS updates only,** changes to the site since its designation or earlier update:

a) Site boundary and area:

**** Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): yes ✓ -or- no ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) Yes
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** yes ✓ -or- no ☐;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

51 13 29 N 03 02 57 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Bristol

In the south-west of the United Kingdom, between Wales and England

Administrative region: Bro Morgannwg/ Vale of Glamorgan; Caerdydd/ Cardiff; Casnewydd/ Newport; Avon; City of Bristol; Fynwy/ Monmouthshire; Gloucestershire; Gwent; North Somerset; Somerset; South Glamorgan; South Gloucestershire

10. Elevation (average and/or max. & min.) (metres): **11. Area** (hectares): 24662.98

Min. -4
Max. 17
Mean 0

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The estuary's classic funnel shape, unique in Britain, is a factor causing the Severn to have the second-largest tidal range in the world (after the Bay of Fundy, Canada). This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide swept sand and rock. The species-poor invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders.

A further consequence of the large tidal range is the extensive intertidal zone, one of the largest in the UK, comprising mudflats, sand banks, shingle, and rocky platforms.

Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass *Zostera* occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Heavily grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1, 3, 4, 5, 6, 8

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 1

Due to immense tidal range (second-largest in world), this affects both the physical environment and biological communities.

Habitats Directive Annex I features present on the pSAC include:

- H1110 Sandbanks which are slightly covered by sea water all the time
- H1130 Estuaries
- H1140 Mudflats and sandflats not covered by seawater at low tide
- H1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Ramsar criterion 3

Due to unusual estuarine communities, reduced diversity and high productivity.

Ramsar criterion 4

This site is important for the run of migratory fish between sea and river via estuary. Species include Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla*. It is also of particular importance for migratory birds during spring and autumn.

Ramsar criterion 8

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

Ramsar criterion 5**Assemblages of international importance:****Species with peak counts in winter:**

70919 waterfowl (5 year peak mean 1998/99-2002/2003)

Ramsar criterion 6 – species/populations occurring at levels of international importance.**Qualifying Species/populations (as identified at designation):**

Species with peak counts in winter:

Tundra swan , <i>Cygnus columbianus bewickii</i> , NW Europe	229 individuals, representing an average of 2.8% of the GB population (5 year peak mean 1998/9-2002/3)
Greater white-fronted goose , <i>Anser albifrons albifrons</i> , NW Europe	2076 individuals, representing an average of 35.8% of the GB population (5 year peak mean for 1996/7-2000/01)
Common shelduck , <i>Tadorna tadorna</i> , NW Europe	3223 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
Gadwall , <i>Anas strepera strepera</i> , NW Europe	241 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Dunlin , <i>Calidris alpina alpina</i> , W Siberia/W Europe	25082 individuals, representing an average of 1.8% of the population (5 year peak mean 1998/9-2002/3)
Common redshank , <i>Tringa totanus totanus</i> ,	2616 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species regularly supported during the breeding season:

Lesser black-backed gull , <i>Larus fuscus graellsii</i> , W Europe/Mediterranean/W Africa	4167 apparently occupied nests, representing an average of 2.8% of the breeding population (Seabird 2000 Census)
--	--

Species with peak counts in spring/autumn:

Ringed plover , <i>Charadrius hiaticula</i> , Europe/Northwest Africa	740 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3)
---	---

Species with peak counts in winter:

Eurasian teal , <i>Anas crecca</i> , NW Europe	4456 individuals, representing an average of 1.1% of the population (5 year peak mean 1998/9-2002/3)
Northern pintail , <i>Anas acuta</i> , NW Europe	756 individuals, representing an average of 1.2% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

See Sections 21/22 for details of noteworthy species

Details of bird species occurring at levels of National importance are given in Section 22

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	alluvium, basic, biogenic reef, clay, cobble, gravel, limestone/chalk, mud, neutral, nutrient-rich, peat, sand, sandstone/mudstone, sedimentary, shingle
Geomorphology and landscape	cliffs, coastal, estuary, floodplain, intertidal rock, intertidal sediments (including sandflat/mudflat), islands, lowland, open coast (including bay), pools, subtidal rock (including rocky reefs), subtidal sediments (including sandbank/mudbank), tidal rapids
Nutrient status	eutrophic
pH	circumneutral
Salinity	brackish / mixosaline, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Cardiff, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/cardiff.html) Max. daily temperature: 14.3° C Min. daily temperature: 6.8° C Days of air frost: 33.0 Rainfall: 1111.7 mm Hrs. of sunshine: 1518.0

General description of the Physical Features:

The Severn Estuary is a large estuary with extensive intertidal mudflats and sandflats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The seabed is rock and gravel with subtidal sandbanks. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second-highest tidal range in the world. This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide-swept sand and rock. A further consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The Severn Estuary is a large estuary with extensive intertidal mudflats and sandflats, rocky platforms and islands. Saltmarsh fringes the coast backed by grazing marsh with freshwater ditches and occasional brackish ditches. The seabed is rock and gravel with subtidal sandbanks. The estuary's classic funnel shape, unique in the UK, is a factor causing the Severn to have the second-highest tidal range in the world. This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide-swept sand and rock. A further consequence of the large tidal range is an extensive intertidal zone, one of the largest in the UK.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

19. Wetland types:

Inland wetland, Marine/coastal wetland

Code	Name	% Area
G	Tidal flats	84.1
H	Salt marshes	4.7
D	Rocky shores	4.7
E	Sand / shingle shores (including dune systems)	4.4
Tp	Freshwater marshes / pools: permanent	1
B	Marine beds (e.g. sea grass beds)	0.9
F	Estuarine waters	0.2

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The large tidal range leads to strong tidal streams and high turbidity, producing communities characteristic of the extreme physical conditions of liquid mud and tide-swept sand and rock. Broad intertidal flats with areas of unstable sand and muddy flats support high densities of invertebrates. Intertidal rock platforms support a wide variety of invertebrate species. There are large areas of subtidal sand, rock and gravel with a variety of aquatic estuarine communities including *Sabellaria alveolata* reef. Areas of saltmarsh fringe the estuary, mostly grazed with a range of vegetation communities. There are gradual and stepped transitions between bare mudflat to upper marsh and grassland. Main vegetation types are: upper saltmarsh with *Festuca rubra* and *Juncus gerardii*; middle marsh dominated by *Puccinellia maritima* with *Glaux maritima* and *Triglochin maritima*; dense monocultures of *Spartina anglica* at the edge of the mudflats-brackish pools and depressions with *Phragmites australis* and *Bolboschoenus maritimus*.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.

Nationally important species occurring on the site.**Higher Plants.**

Aster linosyris (nationally rare),

Alopecurus bulbosus, *Althaea officinalis*, *Bupleurum tenuissimum*, *Hordeum marinum*, *Lepidium latifolium*, *Petroselinum segetum*, *Puccinellia rupestris*, *Trifolium squamosum*, *Zostera marina/angustifolia*, *Zostera noltei* (all nationally scarce)

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.

Birds**Species currently occurring at levels of national importance:****Species regularly supported during the breeding season:**

Herring gull , *Larus argentatus argentatus*, NW 1540 apparently occupied nests, representing an average of 1.1% of the GB population (Seabird Europe and Iceland/W Europe) 2000 Census)

Species with peak counts in spring/autumn:

Little egret , <i>Egretta garzetta</i> , West Mediterranean	17 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , <i>Philomachus pugnax</i> , Europe/W Africa	12 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
Whimbrel , <i>Numenius phaeopus</i> , Europe/Western Africa	333 individuals, representing an average of 11.1% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Eurasian curlew , <i>Numenius arquata arquata</i> , N. a. <i>arquata</i> Europe (breeding)	2021 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , <i>Tringa nebularia</i> , Europe/W Africa	26 individuals, representing an average of 4.3% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Eurasian wigeon , <i>Anas penelope</i> , NW Europe	4658 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , <i>Anas clypeata</i> , NW & C Europe	297 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Common pochard , <i>Aythya ferina</i> , NE & NW Europe	1118 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Water rail , <i>Rallus aquaticus</i> , Europe	11 individuals, representing an average of 2.4% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , <i>Tringa erythropus</i> , Europe/W Africa	10 individuals, representing an average of 7.3% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Species occurring at levels of international importance on the site.

Fish.

Alosa alosa (IUCN Red data book – threatened; Habitats Directive Annex II, Annex V (S1102)),
Alosa fallax (IUCN Red data book – threatened; Habitats Directive Annex II, Annex V (S1103))
Lampetra fluviatilis (IUCN Red data book – threatened; Habitats Directive Annex II (S1099)),
Petromyzon marinus (Habitats Directive Annex II (S1095))

Nationally important species occurring on the site.**Invertebrates.**

Tenellia adspersa (nationally rare); *Corophium lacustre* (nationally scarce); *Gammarus insensibilis* (nationally scarce)

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic

Archaeological/historical site

Environmental education/ interpretation

Fisheries production
 Livestock grazing
 Non-consumptive recreation
 Scientific research
 Sport fishing
 Sport hunting
 Tourism
 Traditional cultural
 Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? **No**

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Local authority, municipality etc.	+	+
National/Crown Estate	+	
Private	+	+
Public/communal	+	+
Other	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	+
Fishing: commercial	+	+
Fishing: recreational/sport	+	+
Gathering of shellfish	+	
Bait collection	+	
Arable agriculture (unspecified)		+
Grazing (unspecified)	+	+
Permanent pastoral agriculture		+

Hunting: recreational/sport	+	+
Industrial water supply	+	
Industry	+	+
Sewage treatment/disposal	+	+
Harbour/port	+	+
Flood control	+	+
Mineral exploration (excl. hydrocarbons)	+	+
Mining/quarrying	+	+
Transport route	+	+
Urban development		+
Military activities	+	+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.
2. Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Dredging	1		+	+	+
Erosion	1		+		+
Recreational/tourism disturbance (unspecified)	1		+	+	

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	+

National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Management agreement	+	+
Site management statement/plan implemented	+	
Other	+	
Management plan in preparation	+	+

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Contemporary.**Fauna.**

Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Wildfowl shooting monitoring. Returns received annually from Wildfowling Clubs.

Completed.**Flora and Fauna.**

CCW/EN Marine Intertidal Phase 1 survey of the biotopes of the Severn Estuary in 2003/4
BTO Research report 335 for CCW/EN (November 2003). Low tide distribution of waterbirds of Severn Estuary SPA. Results of 2002/03 WeBS low tide counts and a historical analysis (Burton *et al.* 2003).

WWT Wetlands Advisory Service. Report for CCW (April 2003). Baseline bird monitoring of the River Severn.

Joint Nature Conservation Committee (1997) Subtidal biotope survey at mouth of the River Parrett.

Joint Nature Conservation Committee (1997) Upper estuary intertidal rocky shore survey.

Mettam, C (1997) *Biotopes in the subtidal sandbanks of the Severn estuary*. Report to English Nature

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

There are fixed interpretation panels and hides at Bridgwater Bay, Newport Wetlands Reserve, Flat Holm LNR and field centre. Interpretation boards at Black Rock.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.

Walking, dog walking, and birdwatching are concentrated along the sea walls all the year round and on the saltmarsh and sandy beaches.

Bathing, beach recreation, including sand yachting and wind surfing are practised on the sandy beaches, mainly in the summer.

There are boat clubs/marinas in the sub-estuaries with sailing, motor boats, and jet skiing. Angling is carried out from the shore and small boats. There is a certain amount of bait digging. Wildfowling is carried out from September to February all around the Estuary; consents and further management measures are being addressed. There are agreed refuge areas for the birds.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.
 Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs,
 European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol,
 BS1 6EB
 Head, Countryside Division, Welsh Assembly Government, Cathays Park, Cardiff, CF1 3NQ

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House,
 Northminster Road, Peterborough, PE1 1UA, UK / Site Safeguard Officer, International
 Designations, Countryside Council for Wales, Maes-y-Ffynnon, Penrhosgarnedd, Bangor,
 Gwynedd, LL57 2DW

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

Site-relevant references

- Association of Severn Estuary Relevant Authorities (2003) *Severn Estuary European Marine Site. Foundation document for the management scheme*. Association of Severn Estuary Relevant Authorities.
www.severnestuary.net/asera/pubs/Final%20version.doc
- Association of Severn Estuary Relevant Authorities (2003) *Severn Estuary European Marine Site. Management scheme*. Association of Severn Estuary Relevant Authorities. www.severnestuary.net/asera/pubs/Final%20version.doc
- Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP, Davidson, NC & Buck, AL (eds.) (1996) *Coasts and seas of the United Kingdom. Region 11. The Western Approaches: Falmouth Bay to Kenfig*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)
- Bratton, JH (ed.) (1991) *British Red Data Books: 3. Invertebrates other than insects*. Joint Nature Conservation Committee, Peterborough
- Bratton, JH (2002) Aquatic invertebrates recorded in the Gwent levels: introduction, checklist and bibliography. CCW *Natural Science Report*, No. 02/5/2
- Buck, AL (ed.) (1993) *An inventory of UK estuaries. Volume 2. South-west Britain*. Joint Nature Conservation Committee, Peterborough
- Burd, F (1989) *The saltmarsh survey of Great Britain. An inventory of British saltmarshes*. Nature Conservancy Council, Peterborough (Research & Survey in Nature Conservation, No. 17)
- Burton, NHK, Marchant, JH, Musgrove, AJ, Armitage, MJS, Holloway, SJ & Phillips, J (2003) *Low-tide distributions of waterbirds on the Severn Estuary SPA: results of the 2002/03 WeBS Low Tide Counts and a historical analysis*. British Trust for Ornithology, Thetford (BTO Research Report, No. 335)
- Countryside Council for Wales (1993) *Welsh estuaries review*. Countryside Council for Wales, Bangor
- Countryside Council for Wales (2004) CCW Phase 1 Intertidal Survey dataset (unpublished data)
- Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge
- Crowther, PR (ed.) (1992) *The coast of Avon. Proceedings of the Bristol Naturalists' Society*, 50 (Special issue, No. 3)
- Dargie, T (1999) NVC survey of saltmarsh habitat in the Severn estuary 1998. Final report to the Countryside Council for Wales and English Nature. CCW *Contract Science Report*, No. 341
- Dargie, T (1999) Scarce plants survey of saltmarsh on the Welsh side of the Severn estuary. CCW *Contract Science Report*, No. 367
- Dargie, T (2000) Description of the Severn estuary survey sectors identified in the 1998 NVC survey. CCW *Contract Science Report*, No. 399

- Davies, J (1998) Chapter 9. Bristol Channel and approaches (Cape Cornwall to Cwm yr Eglwys, Newport Bay) (MNCR Sector 9). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 255-295. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)
- English Nature (1996) *The scientific interest of the Severn Estuary/Môr Hafren pSAC*. English Nature, Peterborough
- English Nature (1998) *Bridgwater Bay National Nature Reserve Management Plan*. English Nature, Somerset Team, Taunton
- English Nature & Countryside Council for Wales (2003) *English Nature & the Countryside Council for Wales' draft advice for the Severn Estuary Special Protection Area given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994. Consultation draft*. English Nature, Peterborough. www.english-nature.gov.uk/pubs/publication/PDF/SPAandmaps.pdf
- Environment Agency (2004) *Gwent Levels Foreshore Management Plan. Holistic analysis of foreshore evolution scheme and monitoring options, Phase 3 final report, AK4065.500/DGO8*. Environment Agency Wales
- Ferns, PN (n.d.[1978]) *The Severn estuary. A heritage of wildlife*. Severn Estuary Conservation Group
- Ferns, PN (1984) Birds of the Bristol Channel and Severn estuary. *Marine Pollution Bulletin*, **15**(2), 76-81
- Ferns, PN (1994) The Severn estuary's changing shorebird population during the last two decades. *Biological Journal of the Linnean Society*, **51**, 219-227
- Ferns, PN, Green, GH & Round, PD (1979) Significance of the Somerset and Gwent Levels in Britain as feeding areas for migrant whimbrels *Numenius phaeopus*. *Biological Conservation*, **16**(1), 17-22
- Fowles, A (1994) *Invertebrates of Wales: a review of important sites and species*. Joint Nature Conservation Committee, Peterborough
- Gifford Associated Consultants (on behalf of the Severn Estuary Coastal Group) (2000) *Severn Estuary Shoreline Management Plan*. English Nature
- Goodger, B (2005) *Mapping locations of non-breeding birds on the Welsh section of the Severn estuary SSSI, Ramsar site, SPA and cSAC*. (Contractor: Just Ecology, Berkeley). Unpublished report to Countryside Council for Wales
- Halcrow (on behalf of the North Devon and Somerset Coastal Group) (1998) *Bridgwater to Bideford Bay Shoreline Management Plan*. English Nature
- Holbrook, A (1992) *The Severn Barrage: a bibliography 1909–1991*. 2nd edn. Bath University Library
- Jones, PS, Stevens, DP, Blackstock, TH, Burrows, CR & Howe, EA (eds.) (2003) *Priority habitats of Wales: a technical guide*. Countryside Council for Wales, Bangor
- Lacambra, C, Cutts, N, Allen, J, Burd, F & Elliott, M (2004) *Spartina anglica: a review of its status, dynamics and management*. *English Nature Research Reports*, No. 527. www.english-nature.org.uk/pubs/publication/PDF/527.pdf
- Langston, WJ, Chesman, BS, Burt, GR, Hawkins, SJ, Readman, J & Worsfield, P (2003) *Characterisation of the South West European Marine Sites: The Severn Estuary (possible) Special Area of Conservation, Special Protection Area*. Marine Biological Association of the United Kingdom, Plymouth (Occasional publication, No. 13) www.mba.ac.uk/nmb/publications/occasionalpub13.htm
- Little, C, Wilson, RS, Hinton, RG & Morritt, D (1985) Ecology of the upper Severn estuary. *Nature Conservancy Council, CSD Reports*, No. 604
- Lovell, MA & Mettam, C (1991) *Severn tidal power. Intertidal sediments and fauna: 1, Distribution of shore birds and their invertebrate prey; 2, Collated bibliography of macroinvertebrates from intertidal sediments*. United Kingdom Atomic Energy Authority (UKAEA), Didcot
- McLeod, CR, Yeo, M, Brown, AE, Burn, AJ, Hopkins, JJ & Way, SF (eds.) (2004) *The Habitats Directive: selection of Special Areas of Conservation in the UK*. 2nd edn. Joint Nature Conservation Committee, Peterborough. www.jncc.gov.uk/SACselection
- Mettam, C (1997) *Biotopes in the subtidal sandbanks of the Severn estuary*. Report to English Nature
- Milton, T & Dargie, T (2000) *Severn estuary: evaluation of CASI and digital salt marsh survey information*. (Contractor: University of Southampton, GeoData Institute). Unpublished report to English Nature.
- Moore, J, Smith, J, Northen, KO & Little, M (1998) *Marine Nature Conservation Review Sector 9. Inlets in the Bristol Channel and approaches: area summaries*. Joint Nature Conservation Committee, Peterborough (Coasts and seas of the United Kingdom. MNCR series)
- Morley, JV (1992) *The birds of Bridgwater Bay*. Unpublished, English Nature
- Musgrove, AJ, Langston, RHW, Baker, H & Ward, RM (eds.) (2003) *Estuarine waterbirds at low tide. The WeBS Low Tide Counts 1992–93 to 1998–99*. WSG/BTO/WWT/RSPB/JNCC, Thetford (International Wader Studies, No. 16)
- Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14

- Otto, S (1996) *A scientific bibliography of the Bristol Channel and Severn estuary*. Kimberley Services, Reading (Publication No. 96/2)
- Palmer, M & Probert, K (1981) *Natural environment of the Severn estuary and Bristol Channel area*. Nature Conservancy Council, Information and Library Services, Banbury (Bibliography Series, No. 4)
- Potts, GW & Swaby, SE (1993) Review of the status of estuarine fishes. *English Nature Research Reports*, No. 34
- Ratcliffe, DA (ed.) (1977) *A Nature Conservation Review. The selection of biological sites of national importance to nature conservation in Britain*. Cambridge University Press (for the Natural Environment Research Council and the Nature Conservancy Council), Cambridge (2 vols.)
- Severn Estuary Partnership (2003) *Severn Estuary Gateway site*. www.severnestuary.net
- Stewart, A, Pearman, DA & Preston, CD (eds.) (1994) *Scarce plants in Britain*. Joint Nature Conservation Committee, Peterborough
- Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default.htm
- Ward, R, Marshall, P & Woodward, R (2003) Baseline bird monitoring of the River Severn. (Contractor: WWT Wetlands Advisory Service, Slimbridge.) *CCW Contract Science Report*, No. 582
- Weighell, AJ, Donnelly, AP & Calder, K (eds.) (2000) *Directory of the Celtic coasts and seas*. Joint Nature Conservation Committee, Peterborough

Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • email: ramsar@ramsar.org

EUROPEAN OFFICES

AYLESBURY

T: +44 (0)1844 337380

BELFAST

belfast@slrconsulting.com

BIRMINGHAM

T: +44 (0)121 2895610

BONN

T: +49 (0)176 60374618

BRADFORD-ON-AVON

T: +44 (0)1225 309400

BRISTOL

T: +44 (0)117 9064280

CARDIFF

T: +44 (0)2920 491010

CHELMSFORD

T: +44 (0)1245 392170

DUBLIN

T: +353 (0)1 296 4667

EDINBURGH

T: +44 (0)131 335 6830

EXETER

T: +44 (0)1392 490152

FRANKFURT

frankfurt@slrconsulting.com

GRENOBLE

T: +33 (0)6 23 37 14 14

LEEDS

T: +44 (0)113 5120293

LONDON

T: +44 (0)203 8056418

MAIDSTONE

T: +44 (0)1622 609242

MANCHESTER

T: +44 (0)161 8727564

NEWCASTLE UPON TYNE

T: +44 (0)1844 337380

NOTTINGHAM

T: +44 (0)115 9647280

SHEFFIELD

T: +44 (0)114 2455153

SHREWSBURY

T: +44 (0)1743 239250

STIRLING

T: +44 (0)1786 239900

WORCESTER

T: +44 (0)1905 751310