EDF Energy Nuclear Generation Ltd

Decommissioning of Hinkley Point B Nuclear Power Station

Habitats Regulation Appraisal: Screening Report

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Executive Summary

EDF Energy Nuclear Generation Limited (hereafter referred to as the Applicant) is applying for consent under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR) from the Office for Nuclear Regulation (ONR) to decommission Hinkley Point B Nuclear Power Station (HPB) in Somerset (the 'Proposed Works').

Under Regulation 63 of the Habitats Regulations, a person applying for any consent, permission or other authorisation for a plan or project must provide such information as the Competent Authority (in this case, the Office for Nuclear Regulation) may reasonably require for the purposes of the assessment or to enable them to determine whether an appropriate assessment is required. Thus, the Applicant is responsible for assembling and describing all the relevant information required to enable the Competent Authority (CA) to carry out their Habitats Regulations Assessment (HRA) responsibilities.

This HRA Screening Report has been produced, and details the scope, approach and conclusions of the HRA screening, in respect to the impact of the Proposed Works on the qualifying interest features of all European Sites screened into the assessment, either alone or in combination with other plans or projects.

The Proposed Works primarily involve the removal of hazards and the demolition of buildings and infrastructure on operational land predominantly within the existing Nuclear Site Licence boundary (the 'Site'). In addition, there is activity in the marine environment, to isolate and dismantle the Cooling Water Intake Structure, and in the intertidal environment, to install a new Active Effluent Discharge and Sewage Treatment lines. Radioactive wastes and discharges are not in scope of the EIADR Application, due to the regulations and processes already in place to manage their environmental effects and thus ensuring no significant effects on the environment; therefore, radioactive wastes and discharges are not considered within this HRA Screening Report.

The Proposed Works comprise three phases:

- Preparations for Quiescence phase – This phase includes the dismantling and deconstruction of all plant and buildings not included within the Safestore structure on-site, and the management of wastes generated from these activities. This phase includes the modification of the existing reactor building to create the Safestore structure as well as works to the Cooling Water infrastructure.
- Quiescence phase – An almost 70-year period of relative inactivity with minimal management to allow further radioactive decay of materials within the Safestore. This would involve continuous monitoring and surveillance, with periodic care and maintenance interventions as required.
- Final Site Clearance – This will involve the dismantling and decommissioning of the Reactors, High Activity Debris Vaults and other plant retained within the Safestore and its subsequent removal from the Site. The Safestore structure will also be removed. Following this, works will focus on works needed to facilitate the delicensing of the Site to allow the land to be released for future re-use.

Marine works (works beyond the existing Sea Wall) will be limited to defined periods within the Preparations for Quiescence phase and, in line with best practice, will be timed to avoid sensitive periods for relevant ecological receptors (specifically avoiding the moulting shelduck period during the summer months (July to September)). This avoidance period has also been recognised during the construction phase of Hinkley Point C (HPC) as well as maintenance works that have been

undertaken at HPB, such as repairs to existing emergency accesses and maintenance beyond the Sea Wall.

This HRA Screening Report considers the potential for likely significant effects on the following sites:

- Severn Estuary SPA;
- Severn Estuary Ramsar;
- Severn Estuary/Môr Hafren SAC;
- Exmoor and Quantock Oakwoods SAC;
- Somerset Levels and Moors SPA;
- Somerset Levels and Moors Ramsar;
- River Usk / Afon Wsyg SAC;
- River Axe SAC;
- River Wye / Afon Gwy SAC;
- River Clun SAC;
- Bristol Channel Approaches / Dynesfeydd Môr Hafren SAC;
- River Avon SAC;
- Lundy SAC;
- Pembrokeshire Marine / Sir Benfro Forol SAC;
- Cardigan Bay / Bae Ceredigion SAC;
- Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau SAC;
- Plymouth Sound and Estuaries SAC;
- Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC;
- West Wales Marine / Gorllewin Cymru Forol SAC;
- Afon Tywi/ River Tywi SAC;
- River Clun SAC;
- River Itchen SAC; and
- Afonydd Cleddau / Cleddau Rivers SAC.

This HRA Screening Report considers HPB baseline survey and monitoring reports and comprehensive monitoring data from HPC, shared with the Applicant (which includes intertidal non-breeding bird counts dating back to 2016, and specific shelduck monitoring (a requirement of HPC discharge condition J2)).

This HRA Screening Report concludes that there are no likely significant effects (LSE) on any qualifying features of any European Sites within the new national site network; as such it is not necessary to move from Stage 1 ("screening") to the next stage ("appropriate assessment").

Whilst there have been minor amendments to the description of the Proposed Works for which consent is being sought since the submission of the EIA Scoping Report (05 October 2022), these

are considered to be non-material in nature and represent an evolution of the Proposed Works design and implementation methodologies. These amendments have been included in this report where relevant, but do not integrally change its conclusions.

1. Introduction

1.1 Background

1.1.1 This report forms one of a suite of documents, which has been prepared to accompany an application to the Office for Nuclear Regulation (ONR) for consent under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR)[1] to decommission Hinkley Point B Nuclear Power Station (HPB) (hereafter referred to as 'the Proposed Works').

1.1.2 The Proposed Works will include the dismantling and deconstruction of buildings and structures in areas within and outside of the Nuclear Site Licence (NSL) boundary, that are part of HPB. To assist the identification of these areas, an Indicative Dismantling Works Area (hereafter referred to as 'the Works Area') has been identified. The NSL boundary, which lies within the Works Area, is referred to as 'the Site'. The Site and Works Area boundaries are shown on **Figure 1.1: HPB Indicative Dismantling Works Area (Works Area)**.

1.1.3 This HRA Screening Report should be read in conjunction with the HPB Environmental Statement (ES) submitted (including appendices) as part of the application for decommissioning consent, and specifically addressing relevant parts of the following chapters:

- **Chapter 6: Air quality** (due to the potential for emissions and dust associated with the Proposed Works to negatively affect habitats, flora and fauna);
- **Chapter 8: Terrestrial biodiversity and ornithology** (due to the close interactions and crossover of European Sites and ecological features);
- **Chapter 9: Marine biodiversity** (due to the close interactions and crossover of European Sites and ecological features);
- **Chapter 12: Soils, geology and hydrogeology** (due to the close association between some habitats, flora and fauna, and local hydrology);
- **Chapter 14: Landscape and visual impact assessment** (due to the close association between some landscape receptors and ecological features (habitats/flora) and the potential for overlapping embedded environmental measures, mitigation and enhancements);
- **Chapter 15: Noise and vibration** (due to the potential for fauna to be disturbed or displaced by noise and vibration associated with the Proposed Works, but noting that potential effects on biodiversity has been primarily reported within Chapters 8 and 9 of the ES); and
- **Chapter 16: Traffic and transport** (due to the potential for disturbance associated with the Proposed Works to negatively affect habitats, flora and fauna, potential for traffic/plant emissions to negatively affect habitats, flora and fauna, and potential for road traffic collisions with fauna associated with the Proposed Works).

[1] The Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 19991999. UK Statutory Instruments 1999 No. 28922892. Available online at: https://www.legislation.gov.uk/uksi/1999/2892/contents/made.https://www.legislation.gov.uk/uksi/1999/2892/contents/made. (Accessed 24 February 2023).

1.1.4 The Proposed Works are located within 20km of a number of European wildlife sites[2], as presented in **Chapter 5**.

1.2 Purpose of this Report

1.2.1 In addition to the assessment of potential effects on European Sites, which will be addressed in the Environmental Statement (ES), under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations)[3], a person applying for any consent, permission or other authorisation for a plan or project 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. Thus, the Applicant is responsible for assembling and describing all the relevant information required to enable the competent authorities to carry out their HRA responsibilities.

1.2.2 The ONR is the Competent Authority for the purposes of the Habitats Regulations in relation to the Proposed Works. The Habitats Regulations require competent authorities, before granting consent for a plan or project, to carry out an Appropriate Assessment (AA) where the plan or project cannot rule out potential for significant effects on a European Site (either alone or in combination with other plans or projects) at the screening stage.

1.2.3 The purpose of this report, therefore, is to provide the Competent Authority with sufficient information to undertake their own HRA process for the Proposed Works. This report covers HRA Stage 1, Screening, only; however, for completeness, the full HRA process has been described within **Chapter 2**.

[2] Under Regulation 8 of The Conservation of Habitats and Species Regulations 2017 (SI 2017 No. 10121012), European sites are defined as Special Areas of Conservation (SACs), candidate SACs, Sites of Community Importance, SPA and European Marine Sites (EMS), which are marine areas designated as SACs and SPAs. UK policy extends the requirements pertaining to European sites to include Ramsar sites and potential SPAs, and this would include proposed extensions or alterations to existing SPAs.

[3] The Conservation of Habitats and Species (Amendment) Regulations (2017).Available online at: https://www.legislation.gov.uk/uksi/2017/1012/contents/made (Accessed November 2022).

2. The HRA Process Overview

2.1 Background

2.1.1 Council Directives 92/43/EEC[4] on the Conservation of natural habitats and of wild fauna and flora ("the Habitats Directive") and 2009/147/EC[5] on the Conservation of wild birds ("the Birds Directive") provide for the designation of sites for the protection of certain species and habitats. Sites designated under these Directives are collectively termed European Sites, forming a network of protected sites known as the Natura 2000 network. The UK Government is also a signatory to the Convention on Wetlands of International Importance 1972[6] ("the Ramsar Convention"). The Ramsar Convention provides for the citation of wetlands of international importance. UK Government policy gives sites identified under this convention ("Ramsar Sites") the same protection as European Sites and the new national site network. The four-stage process of determining the absence of adverse effects on European Sites under the Habitats Directives / Regulations is known as a Habitats Regulations Assessment (HRA).

2.1.2 In the UK, the Habitats Regulations transpose these Directives into national law and apply up to the 12 nautical mile limit of territorial waters. Beyond this limit, they are transposed by the Conservation of Offshore Marine Habitats and Species Regulations 2017[7]

2.1.3 Following the UK's exit from the European Union, changes with regards to the legislation sites were designated under were made by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019[8]. As a result of the UK's exit, SACs and SPAs in the UK no longer form part of the EU's Natura 2000 ecological network. However, the 2019 Regulations have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes existing SACs and SPAs, new SACs and SPAs designated under these Regulations.

2.1.4 Any references to Natura 2000 in the Habitats Regulations and in relevant guidance now refers to the new national site network.

2.1.5 For the purposes of this HRA, in line with the Habitats Regulations and relevant Government policy, the term "European Sites" and new national site network includes SACs, candidate SACs ("cSAC"), possible SACs ("pSAC"), SPAs, potential SPAs ("pSPA"), Sites of Community Importance ("SCI"), listed and proposed Ramsar Sites and sites identified or required as compensatory measures for adverse effects on any of these sites.

[4] European Commission (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Available online at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043 (Accessed November 2022)
[5] UK Government (2009). Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds. Available online at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147 (Accessed November 2022)
[6] UNESCO (1994). Convention on Wetlands of International Importance especially as Waterfowl Habitat. Available online at: https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e.pdf (Accessed November 2022)
[7] Conservation of Offshore Marine Habitats and Species Regulations 2017. UK SI 2017, No. 1013. Available online at: https://www.legislation.gov.uk/uksi/2017/1013/contents/made.https://www.legislation.gov.uk/uksi/2017/1013/contents/made. (Accessed 24 February 2023).
[8] The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (2019) Available online at: https://www.legislation.gov.uk/ukdsi/2019/9780111176573 (Accessed November 2022).

2.1.6 Amongst other things, the Habitats Regulations define the process for the assessment of the implications of plans or projects on European Sites.

2.1.7 HRA can involve up to four stages, as detailed in **Box 1**.

Box 1 Stages of Habitats Regulations Assessment

Stage 1 – Screening:

This stage identifies whether a plan or project is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects. Where Likely Significant Effects (LSE) cannot be ruled out at this stage the European sites will be "screened in" and assessed further.

Stage 2 – Appropriate Assessment:

Where there are LSE, this stage considers the impacts of the Plan or project on the integrity of the relevant European Sites, either alone or 'in combination' with other projects or plans, with respect to the sites' structure and function and their conservation objectives. Where there are adverse effects, it also includes an assessment of the potential mitigation for those effects.

Stage 3 – Assessment of Alternative Solutions:

Where adverse effects (on the integrity of the site) are predicted, this stage examines (whether or not there are) alternative ways of achieving the objectives of the project or Plan that avoid adverse impacts on the integrity of European Sites.

Stage 4 – Assessment Where No Alternative Solutions Exist and Where Adverse Impacts Remain:

This stage assesses compensatory measures where it is deemed that the project or Plan should proceed for imperative reasons of overriding public interest (IROPI).

2.1.8 Stages 1 and 2 are covered by Regulation 63 and Stages 3 and 4 are covered by Regulation 64 and 68 of the Habitats Regulations.

2.1.9 With respect to Stage 2, the integrity of a European Site relates to the site's conservation objectives and has been defined in guidance as "*the coherent sum of the site's ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated*"[9]. An adverse effect on integrity, therefore, is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of designation. The HRA screening process uses the threshold of Likely Significant Effect (LSE) to determine whether effects on European Sites 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)[10] the European Court of Justice found that an LSE should be presumed, and an AA carried out, if it cannot be

[9] Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, at section 4.6.3 (Updated Version, November 2018).
[10] Judgment of the Court (Grand Chamber) of 7 September 2004. Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij. Reference for a preliminary ruling: Raad van State - Netherlands. Case C-127/02.

concluded on the basis of objective information that the plan or project will not have significant effects on the conservation objectives of the site concerned, whether alone or in-combination with any other project, AA will be required. The Advocate General's opinion of the Sweetman case (Case C-258/11)[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*" (original emphasis).

2.1.10 For the reasons highlighted above, the assessment process follows the precautionary principle throughout and the word 'likely' is regarded as a description of a risk (or possibility) rather than in a legal sense of an expression of probability.

2.1.11 Screening can be used to screen-out European Sites and elements of works from further assessment, if it is possible to determine that significant effects are unlikely (e.g., if sites or interest features are clearly not vulnerable (exposed and / or sensitive) to the outcomes of the proposal due to the absence of any reasonable impact pathways.

2.1.12 The screening process has two potential conclusions, namely that the proposed development, alone or in combination with other developments, could result in:

- No LSE on any of the qualifying features of the site; or
- LSE identified, or cannot be ruled out, on one or more of the qualifying features of the site.

2.1.13 Only the latter of these outcomes will trigger an AA. If one or more LSE are identified, or cannot be ruled out, it is then necessary to proceed to Stage 2 and produce an AA.

2.1.14 On 12 April 2018, the Court of Justice of the European Union (CJEU) issued a judgment on Case C323/17 (People over Wind, Peter Sweetman v Coillte Teoranta) which stated (at paragraph 41)[12]:

"*Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects (mitigation) of the plan or project on that site*."

2.1.15 This means that any mitigation relating to protected sites under the Habitat Regulations will no longer be considered at the screening stage but taken forward and considered at the AA stage to inform a decision on whether no adverse effects on site integrity can be demonstrated.

2.1.16 The screening assessment provided within this HRA takes into account the CJEU ruling on 'People over Wind'. It has also adopted a strong precautionary principle; if a pathway of effect is established between the Proposed Development and a European Site, then that site is taken through to appropriate assessment. This ensures all effects are captured, including de minimis effects.

2.1.17 As a precautionary approach has been adopted throughout the screening process for the Project (in this case, the Proposed Works), only those designated features and European Sites where it can be demonstrated that there is no likelihood of a significant effect occurring have been screened out.

[11] Judgment of the Court (Third Chamber), 11 April 2013 Peter Sweetman and Others v An Bord Pleanála. Request for a preliminary ruling from the Supreme Court (Ireland) Case C-258/11.
[12] C-323/17 People over Wind and Sweetman (2018) Available online at: https://curia.europa.eu/juris/liste.jsf?language=en&num=C-323/17 (Accessed November 2022).

2.2 HRA Screening Steps

2.2.1 This HRA Screening Report is intended to cover HRA Stage 1 - Screening only.

2.2.2 Screening aims to determine whether the Proposed Works will have any LSE on any European Site as a result of its implementation. It is intended to be an informed high-level filter for identifying effects (positive and negative) that may occur, to allow the assessment stage then to focus on the most important aspects.

2.2.3 This report follows the procedures for screening described by the European Commission in the guidance document *'Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC'*[13]. These steps are:

- Step 1: Determining whether the project or plan is directly connected with or necessary for the management of the site;
- Step 2: Describing the project (or plan);
- Step 3: Identifying the potential effects on European Sites; and
- Step 4: Assessing the presence of Likely Significant Effects on European Sites.

Step 1

2.2.4 Regulation 63 of the Habitats Regulations applies to plans or projects that are not directly related to the conservation management of a Natura 2000 site. This first step of the screening process is therefore to identify whether the plan or project in question is related to the conservation management of any European Sites.

2.2.5 The European Commission guidance makes it clear that, for a project or plan to be 'directly' connected with or necessary to the management of a European Site, the management must refer to measures that are for conservation purposes. 'Directly' element thus refers to measures that are solely conceived for the conservation management of a site and not direct or indirect consequences of other activities.

2.2.6 The Proposed Works comprise a 'plan or project', for the purpose of the Habitat Regulations, but are not directly connected with or necessary for the management of any European Site. An AA may, therefore, still be required and so it is necessary to proceed to Step 2 of the Screening Process.

Steps 2-4

2.2.7 **Chapter 3** presents a description of the Proposed Works, supported by **Appendix A**. The identification of potential effects is presented in **Chapter 4**, and **Chapter 5** sets out the conclusions from the screening process.

[13] European Commission (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Available online at: https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf (Accessed November 2022).

3. HRA Screening Step 2: Description of the Proposed Works

3.1 Introduction

3.1.1 This step requires an understanding of the location and description of the elements of the Proposed Works that could result in effects on a European Site or land functionally linked to that site. The description must identify the elements of the Proposed Works that may directly affect a European Site (e.g. land-take), those that may indirectly affect a European Site (e.g. emissions to air) and those that may act in-combination with other plans or projects.

3.1.2 The descriptions presented here are supported by additional information provided within **Appendix A: Supporting description of the Proposed Works**.

3.2 Site location and context

The Hinkley Point Complex

3.2.1 HPB is located on the north coast of Somerset on the shore of the Severn Estuary (see **Figure 1.1: HPB Indicative Dismantling Works Area (Works Area)**). It is approximately 12 km north-west of the town of Bridgwater. The smaller settlements of Wick, Burton, Shurton, Stogursey and Stolford are within 3 km of the Site. The Site is currently within the jurisdiction of Somerset Council[14].

3.2.2 HPB is situated to the east of the Hinkley Point A Nuclear Power Station (HPA) which ceased generation in 1999 and is currently undergoing decommissioning. Immediately to the west of HPA is the Hinkley Point C New Nuclear Build site (HPC) currently under construction. HPC comprises two European Pressurised Water Reactors. Generation from the first unit is expected to commence around the end of the decade.

3.2.3 Collectively these sites are referred to as the Hinkley Point Complex.

The Surrounding Area

3.2.4 The Hinkley Point Complex is largely surrounded by land in agricultural use with regular medium sized fields divided by fence-lines and hedges. HPB is bounded to the south and east by a belt of woodland which screens the lower buildings within the Works Area from view. Beyond this, its surroundings are predominantly open, gently rolling, lowland with the land rising from the coast and then down into the Holford valley, before again rising and falling towards Bum Brook and the village of Shurton.

3.2.5 The main features surrounding the Site are mudflats to the north and east. The intertidal mudflats of Bridgwater Bay are separated from the Site by a low cliff, of around 5-10 m in height. At low tide the shore adjacent to the Site comprises a narrow rock platform, interspersed with and fringed by mudflats; while to the east, the mudflats extend up to 500 m from the shoreline at low water. Bridgwater Bay forms part of the Bristol Channel,

[14] Somerset Unitary Authority was created in April 2023 and replaces Somerset County Council. The new unitary council brings together the services previously provided by the four district councils in Somerset (Mendip, Sedgemoor, Somerset West and Taunton, and South Somerset) alongside the services formerly provided by Somerset County Council.

based on the conventional definition of the International Hydrographic Organisation (IHO)[15].

3.2.6 A Scheduled Monument, comprising a round cairn known as Pixie's Mound, lies approximately 350 m to the south-west of the Works Area.

3.2.7 To the south of HPB is a 400 kV substation that is operated by the National Grid and connects HPB to the national transmission network. Beyond this lies a sewage treatment plant servicing foul water from HPA and the Site.

Site description

3.2.8 The land within the Site lies at an elevation of approximately 10 m Above Ordnance Datum (AOD). It predominantly features built form development including the buildings housing the reactors and the adjoining turbine hall towards the centre of the Site, and smaller ancillary buildings, warehouses and tanks. These features are set within current operational land-uses (i.e. related to works on the HPB site) comprising access tracks, car parking and substation compounds all bounded by security fencing. At HPB, the Nuclear Site License (NSL) covers areas to the south, west and east of the power station outside of the security fencing. This area comprises a mosaic of broadleaved and mixed plantation woodland, semi-improved neutral grassland, scrub, tall ruderal vegetation and ephemeral/short perennial vegetation.

3.2.9 The area covered by the Site is approximately 40.1 hectares (ha). The Works Area denotes the indicative area required for the deconstruction of HPB. It includes buildings, structures and the cooling water system, which is located outside the NSL boundary but is a constituent part of the power station infrastructure that will be decommissioned. The Works Area covers approximately 22.71 ha.

3.2.10 The layout of the Works Area may be considered in three parts for the purposes of decommissioning:

- The Radiation Controlled Area (RCA) - consists of the reactor building (containing the two reactors) and a number of other buildings containing plant and structures that have the potential to contain radioactive contamination. The reactor building contains, amongst other plant, two pre-stressed concrete pressure vessels containing the reactor cores; the vessels also serve as biological shields. The RCA includes such areas as the fuel cooling ponds, used to store spent (used) nuclear fuel prior to transportation to Sellafield, the debris vaults and other radioactive waste treatment and storage plant and building;
- The Conventional Area - consists of the area outside of the RCA not within the marine environment. It includes ancillary plant and buildings such as the turbine hall and services building, cooling water systems and numerous other buildings, compounds, roadway, hardstandings which make up the Works Area. For the purposes of assessment, it also includes areas outside of the security fence such as the car parks, and other structures that require removal as part of the Proposed Works such as the Sewage Treatment Plant and the 400 kv substation; and
- The Marine Area – consists of the cooling water systems beyond the Sea Wall.

[15] IHO defines the nearshore limit of the Bristol Channel as the line between Sand Point (north of Weston-super-Mare, Somerset) and Lavernock Point (south of Penarth, Vale of Glamorgan). East of this line is the Severn Estuary.

3.3 Description of the decommissioning process

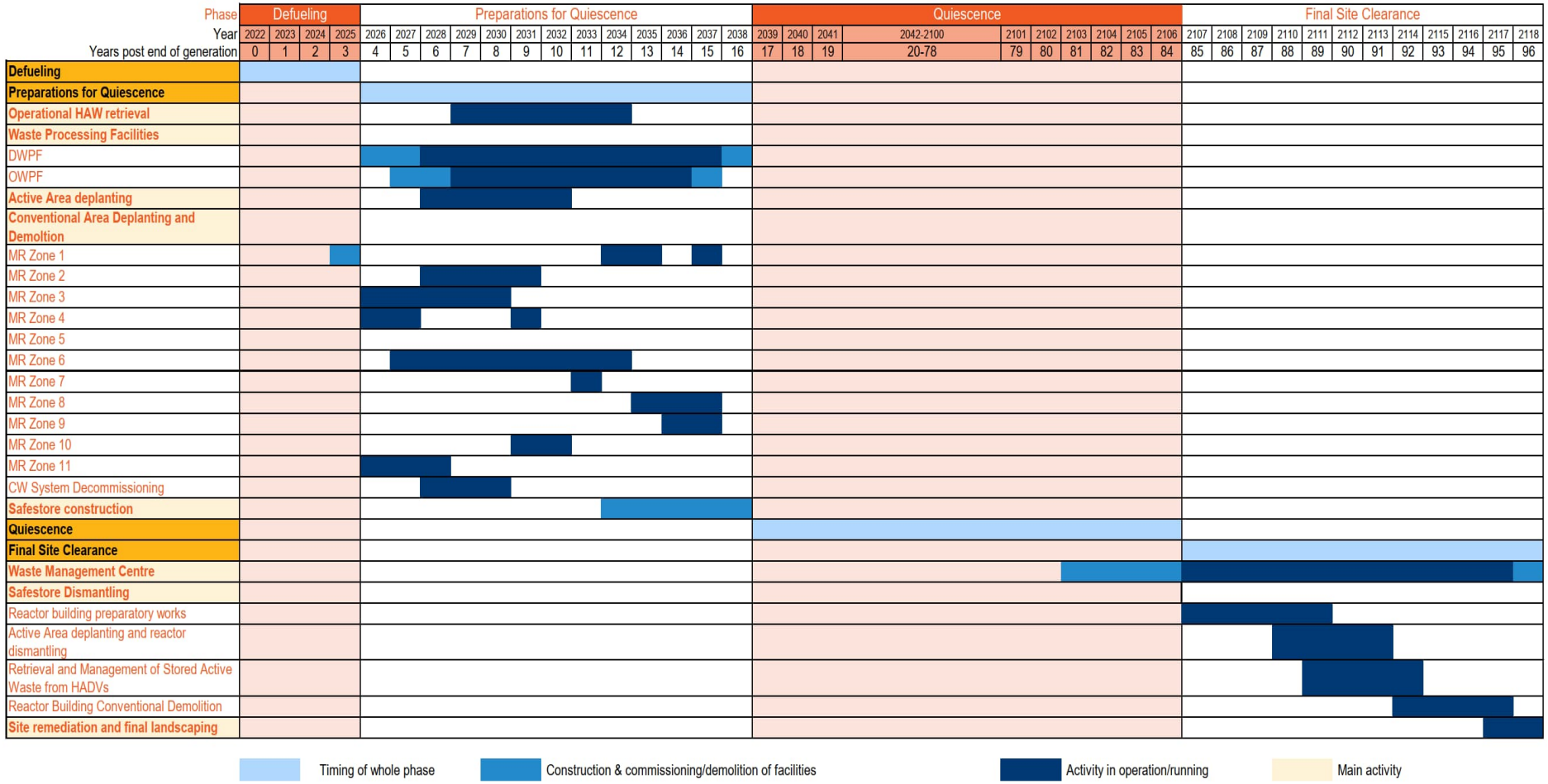
Overview

3.3.1 The decommissioning of HPB will be undertaken in three key phases:

- Preparations for Quiescence Phase;
- Quiescence Phase; and
- Final Site Clearance.

3.3.2 The following sections describe the activities that will take place during each of these phases and the relevant timescales associated with each phase. The timing of these activities is shown on **Graphic 3.1** which outlines the high-level decommissioning programme.

Graphic 3.1 Decommissioning timeline



*Zone 5 incorporates the 400 kV substation and associated buildings to the south of the Works Area, which is on a long-term lease agreement to National Grid and is therefore not considered to be part of the Proposed Works.

Preparations for Quiescence Phase

3.3.3 The Preparations for Quiescence Phase is the first phase of decommissioning and is expected to take approximately 12 years after defueling is completed.

3.3.4 The purpose of this phase is to reduce the hazard presented by the radioactive and non-radioactive materials and wastes on the Site, and to make preparations to place the Site into a passively safe and secure state.

3.3.5 Whilst much of the Works Area will have been dismantled by the end of this phase, it is intended that the entire NSL boundary is retained, and land would not be released for future use until after the Final Site Clearance phase.

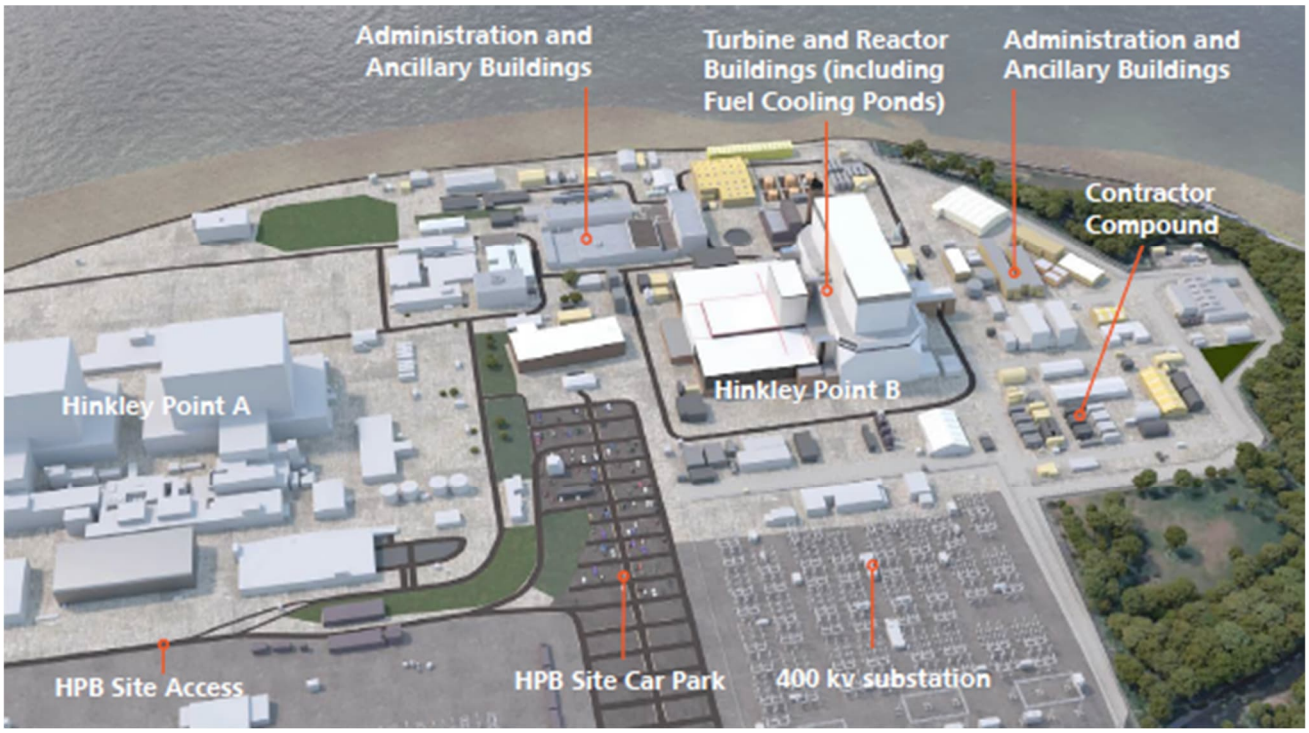
3.3.6 Following defueling, works during this phase will transition from 24-hour operations to 'normal' working hours of between the hours of 7:30 – 18:00 Monday-Friday. There may be some limited occurrences where working beyond these hours may be required. For example, from time to time the working day may be extended in order to complete activities safely.

3.3.7 Site security lighting during this phase will remain largely as it has been in operation. The working hours make it likely that some site lighting may be required to undertake work safely in winter.

3.3.8 **Graphic 3.2** provides an illustration of the current appearance of the Site (1 month after End of Generation (EoG)).

3.3.9 **Graphic 3.3** illustrates how the Site will change in appearance by the end of the Preparations for Quiescence Phase.

Graphic 3.2 Graphic showing HPB just after the End of Generation



Graphic 3.3 Graphic showing HPB at end of the Preparations for Quiescence Phase

Waste management

3.3.10 During the Preparations for Quiescence Phase, the deplanting and deconstruction works will generate radioactive and conventional (i.e. non-radioactive) wastes. Waste management during decommissioning will continue to follow the principles of the waste hierarchy and be undertaken in-line with other industry guidance and relevant waste legislation.

3.3.11 The decommissioning works in the Preparations for Quiescence Phase will generate Low Activity Waste (LAW) and limited quantities of Higher Activity Waste (HAW) classified as Intermediate Level Waste (ILW).

3.3.12 To assist in processing waste associated with the Preparations for Quiescence phase, an Operational Waste Processing Facility (OWPF) and Decommissioning Waste Processing Facility (DWPF) may be required on-site.

Deplanting and deconstruction

3.3.13 During the Preparations for Quiescence Phase, most of the existing buildings will be demolished. Some partial dismantling and removal of plant will occur on and within the reactor buildings with the reactors, the concrete pressure vessels, the boilers and Higher Activity Debris Vaults (HADVs) remaining within a Safestore structure. There will be movement of plant and demolition wastes around the Site, and the use of cranes and other engineering equipment will be required to undertake the works. Existing ground contamination will be remediated on a risk-based approach during this phase. Where possible, demolitions will be to ground level only, although some voids can be expected. The approach to filling of voids created by the deplanting and deconstruction activities is being developed in accordance with the waste hierarchy, optimising the use of site won material and avoiding the use of imported material where possible, and having regard to groundwater management considerations.

Conventional area

3.3.14 The majority of the conventional (non-radioactive) buildings in the Works Area will be amongst the first structures to be demolished. It is expected that after deplanting and any other internal clean-up is complete, demolition will be carried out using conventional methods. The exact method to be used will be determined with the appointed contractor at the appropriate time. Standard mobile cranes will be used in the Works Area on a regular basis during this phase.

3.3.15 The non-radioactive plant and buildings, such as the turbine hall, circulating water system, and ancillary buildings, will be dismantled. Existing systems, plant and equipment may be dismantled in-situ, or broken into parts to be taken elsewhere in the Works area for further processing. All redundant buildings and structures within the Conventional Area will be demolished to ground level with concrete slabs left in-situ.

3.3.16 Basement areas and tunnels will be backfilled and regraded using material produced from the Proposed Works.

Radiation controlled area

3.3.17 During this period, the RCA outside of the Safestore footprint will be fully de-planted and deconstructed. Within the Safestore footprint, approximately one third of the dry fuel route plant and approximately three quarters of the reactor building auxiliary plant will be removed. Buildings housing plant will be removed to ground-level and concrete slabs will be left in-situ.

Landside Works to decommission Cooling Water Infrastructure

3.3.18 Before deplanting and demolition of the CW system can commence, it will be necessary to isolate the CW system from the sea. In accordance with best practice. The first stage of the CW System demolition process is to lower the existing gates for the forebay/drum screen apertures. The inlet system from the drum screen bay to the turbines will be dewatered by pumping out the water into the forebay.

3.3.19 A new fabricated gate for the CW Intake Structure will be lowered into position utilising a mobile crane operating from a pontoon. Residues will then be removed from the intake tunnel using conventional methods, from the top of the Intake Structure into the Severn Estuary which is understood to be permissible under the stations existing environmental permit.

3.3.20 The existing gates, for the Outlet Culverts at the Seal Pit, will be lowered into place utilising a mobile crane. The CW Outlet Culverts between the Turbine Hall and the Seal Pit will be dewatered by pumping out the water into the Seal Pit at the access chamber to the culverts.

3.3.21 The Outfall Tunnel is exposed at low tide and therefore, for several hours per day it will be dry – hence there is no need to dewater. The sealing of the Outfall Tunnel will not be done at the end of the tunnel but at the Sea Wall. The tunnel will be exposed at the Sea Wall at the junction of the HPB and HPA tunnels. Shuttering will be installed on the HPB section of the tunnel and will be positioned to produce a plug of 2 m (the tunnel will not be cleaned out as it is not anticipated that there will be any significant slurry waste in the tunnel). Concrete will be delivered to site and the void created by the shutters will be filled via gravity (through hoses) to form the plugs, which will isolate the tunnel. Safety barriers will be installed to separate the public from the workface. When this work is complete, the CW Outlet tunnels will be left in-situ.

3.3.22 A concrete plug will be constructed in the CW Intake Tunnel under the Sea Wall by accessing the tunnel from the Forebay. This plug will prevent water ingress to the landward side of the CW Intake Tunnels.

3.3.23 The landward tunnel infrastructure between the CW Pumphouse, Seal Pit and Turbine Hall is intended to be grout-filled. The seaward extent of the CW Intake Tunnels between the land shafts and the intake / outfall structures are then assumed to be left in-situ and require no further treatment.

Works in the marine environment

3.3.24 The activities in the marine / intertidal environment associated with the Proposed Works are limited to the decommissioning of the built infrastructure to the seaward side of the HPB Sea Wall. In summary, this includes the dismantling of the Cooling Water (CW) Intake Structure to seabed level, once isolated from the onshore CW infrastructure via plugging at the HPB Sea Wall. Also, the installation of new pipes, including the new Active Effluent Discharge Line (AEDL) and the Sewage Treatment Plant pipe, via the existing CW Outfall structure, which will remain in-situ.

3.3.25 Works in the marine environment will be suitably scheduled to avoid work within the months July-September to limit the associated effects on important ecological features, specifically the core moulting period of shelduck, which is a qualifying feature of Severn Estuary SPA and Ramsar.

Active Effluent Discharge Line (AEDL) and Sewage Treatment Plant Discharge Line

3.3.26 A new AEDL will be installed for decommissioning to enable the Cooling Water Pumps to be turned off and enable the decommissioning of the CW system. This will be implemented by installing a new pipe (100 – 150 mm in diameter) to carry the effluent from its current discharge point at the entry point to the CW Outfall Tunnel adjacent to the Sea Wall to the Outfall. This pipe will be laid beyond the existing tunnel entrance and discharge at the end of the existing CW Outfall Channel approximately 220 m beyond the CW Outfall (approximately 400 m from the Sea Wall). The implementation of these works will necessitate a variation of the existing HPB RSR permit and the need for a Marine License prior to implementation. It is assumed that the new AEDL construction:

- Would utilise low tides where practicable;
- Could utilise the use of dive teams (where appropriate) to support the works and inspect work face; and
- Would work largely from within the existing concrete channel and tunnel system to reduce the potential for sediment disturbance.

3.3.27 Effluent from the Sewage Treatment Plant will be discharged via a newly installed pipeline, separate to but running parallel with the new HPB AEDL pipeline, which extends from the CW Outlet to carry these effluents to the Severn Estuary via the existing CW Outfall.

Cooling Water Intake Structure Dismantling

3.3.28 After the CW Intake Tunnel concrete plug has been installed, the Intake Structure in the Severn Estuary will be demolished. This is assumed to be completed using long reach excavators working from anchored pontoons which will remove the low-level perimeter screen structure. The excavators will use appropriate tooling to demolish the structures to sea bed level and to load the debris from the sea bed on to a barge for disposal. The excavators will then remove the piles and central core of the structure, with pulverisers and breakers, to the top of the Intake Structure (the debris will be loaded from the sea bed on to a barge for disposal). The top section of the Intake Structure which protrudes above the sea bed will be broken out by the excavators and the debris allowed to fall into the shaft of the Intake Tunnel. Divers may be deployed to inspect the work face before and after the works.

Safestore Construction

3.3.29 The Safestore will have a 100-year design life and is designed to be robust, weatherproof, and secure against intrusion for the duration of the Quiescence phase.

3.3.30 The height and footprint of the Safestore is subject to further consideration. **Figure 3.1: Safestore Location** shows the current maximum dimensions of the Safestore for the options being considered. This footprint includes the majority of the existing reactor building. This houses the two reactors, the High Activity Debris Vaults (HADV) and also includes the cooling ponds and existing Active Effluent Treatment Plant (AETP). The height of the Safestore is anticipated to be no higher than the existing reactor building which is approximately 66.5 m above existing ground-level.

3.3.31 The Safestore construction method will depend on the findings of the ongoing options study that will help to define how much of the existing reactor hall structure can be re-utilised as part of the Safestore. It is likely that a series of heavy lift cranes and other engineering equipment will be required to construct the Safestore.

Enabling Projects

3.3.32 To assist the Proposed Works, the following activities will also be required:

- Creation of necessary compound and laydown areas;
- Construction/installation of a Decommissioning Site Incoming Electrical Supply; and
- Creation of a Decommissioning Site Electrical Distribution System.

3.3.33 Works required to identify the location of these activities and the method for how they will be implemented is ongoing.

Quiescence phase

3.3.34 The Quiescence Phase will commence approximately 12 years after defueling is completed, with the Site remaining in this passive condition for approximately 70 years under a regime of continuous monitoring and surveillance, with periodic care and maintenance.

3.3.35 During the Quiescence phase, the Site will be maintained in a quiescent state to allow further radioactive decay of materials within the Safestore. The design basis of the Safestore structure is that it requires only a minimal programme of work to sustain the safe, stable, passive storage conditions and the continued integrity of the Safestore and the Site. Remote monitoring and surveillance systems, along with the intruder resistant design of the Safestore structure will ensure that the security of the Safestore is maintained during the Quiescence phase without the need for permanent site security presence.

3.3.36 There will be periodic visits by the Site Licensee to inspect and monitor the Site and its environs. This includes visual inspections, radiological and environmental monitoring, general grounds maintenance and any other activities required. During the surveillance period there may be a need for refurbishment or replacement of materials, e.g. of building cladding materials or supports.

3.3.37 At the end of this phase, the Site Licensee will carry out final decommissioning planning, to ensure that all regulatory requirements are in place for reactor dismantling and Final Site Clearance.

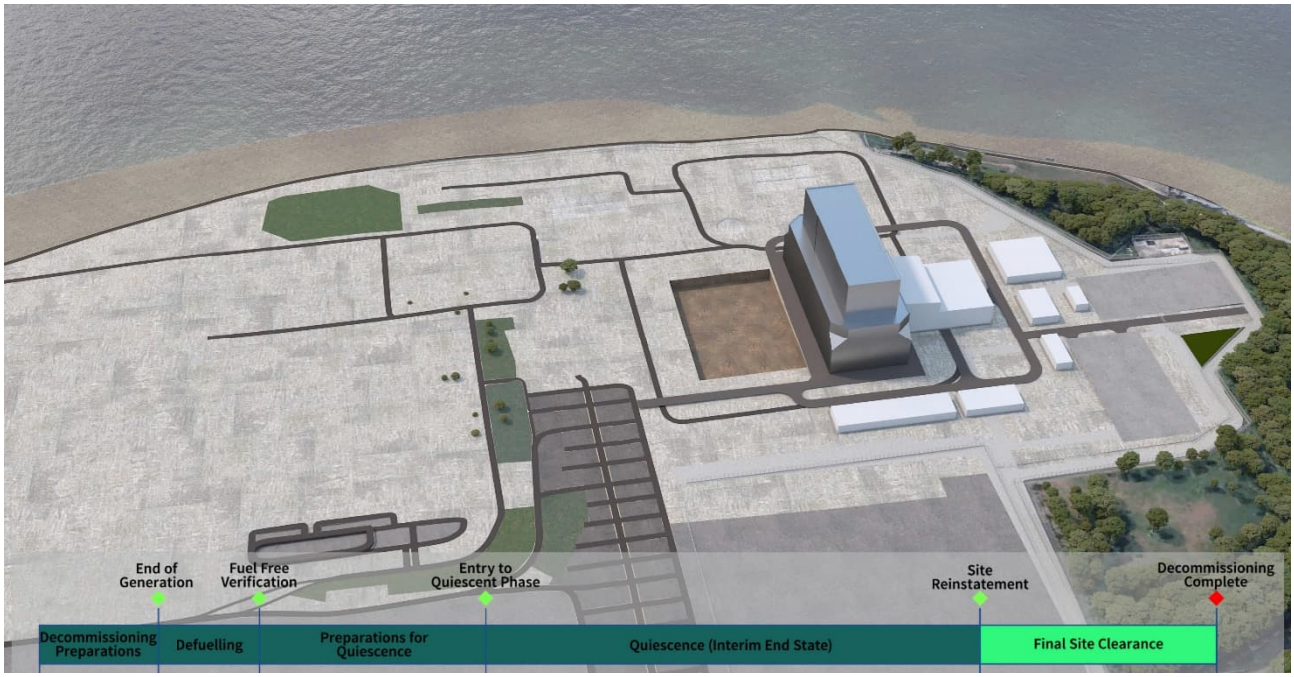
3.3.38 **Graphic 3.3**, which illustrates the Site at the end of the Preparations for Quiescence phase, also represents the likely appearance of the Site for the approximately 70-year Quiescence phase.

Final Site Clearance

3.3.39 Final Site Clearance involving the deconstruction of the Safestore, and final decommissioning is estimated to last approximately 12 years in duration and will commence up to 85 years after EoG.

3.3.40 Construction and engineering works to prepare for the final dismantling tasks will provide the necessary infrastructure, services, and facilities, including an on-site Waste Management Centre (WMC) for the processing of reactor and debris vault wastes and facilities for processing demolition material. ILW will then be transferred to a Geological Disposal Facility (GDF) in accordance with UK policy for Higher Activity Radioactive Waste disposal. An illustration of what the site will look like during the peak of the Final Site Clearance phase is provided below in **Graphic 3.4**.

Graphic 3.4 Illustration of HPB site at the peak of Final Site Clearance activities



3.3.41 During this period, some further land de-contamination may be required to enable the Site to reach end state and be de-licensed. The Environmental Regulator, the Environment Agency, will only agree to release the Site from regulation under the Radioactive Substances Regulation[16] if they are satisfied that radioactive waste disposal has ended and that the Site is left in a state that will ensure the protection of people and the environment.

3.3.42 To comply with the Guidance on Requirements for Release of Nuclear Sites from Radioactive Substances Regulation[17] the Site Licensee will maintain a Waste Management Plan, setting out how radioactive substances will be managed, and a Site-Wide Environmental Safety Case, demonstrating how people and the environment will be protected from any radiological hazard.

3.3.43 Consideration will be given to final landscaping towards the end of Final Site Clearance. At this stage it is considered likely that the Site will be left in a brownfield state so as not to foreclose future development opportunities. Upon de-licensing of the Site, the site fences will be removed, and land will be made available for future use.

[16] UK Government. (1993). *Radioactive Substances Act 1993*. (Online) Available at: https://www.legislation.gov.uk/ukpga/1993/12/contents (Accessed: 31 August 2022)
[17] Environment Agency. (2018). Guidance Decommissioning of nuclear sites and release from regulation. (Online). Available at: https://www.gov.uk/government/publications/decommissioning-of-nuclear-sites-and-release-from-regulation/decommissioning-of-nuclear-sites-and-release-from-regulation (Accessed: 31 August 2022).

4. HRA Screening Step 3: Identification of Potential Effects on European Sites

4.1 European Sites included for Assessment

Overview

4.1.1 All European Sites considered within this HRA (SACs, SPAs, Sites of Community Importance (SCI), possible SACs (pSACs), candidate SACs (cSACs), potential SPAs (pSPAs) or Ramsar Sites) have specific 'qualifying features' associated with their designation. These 'qualifying features' (habitats, mosaics of habitats, species or assemblage of species, and combinations of these) are the reasons for which a particular site is to be protected and managed for conservation purposes.

4.1.2 For SPAs and pSPAs, the qualifying features are the birds for which the SPA is classified, under either:

- Article 4(1), listing rare and vulnerable species, species in danger of extinction or requiring particular attention because of their habitat needs, listed in Annex 1 of the Birds Directive[5]; or
- Article 4(2), listing regularly occurring migratory species (e.g. on passage or over-wintering or an internationally important assemblage of birds) not listed in Annex 1 of the Birds Directive[5].

4.1.3 For SACs, pSACs and cSACs, qualifying features are the habitats listed in Annex I of the Habitats Directive, and/or the species listed in Annex II of the Habitats Directive[4]. SCIs are sites that were adopted by the European Commission for designation as SACs before the end of the Transition Period following the UK's exit from the EU, but not yet formally designated.

4.1.4 For Ramsar sites, qualifying features are the list of Criteria established within the Convention on Wetlands of International Importance (the Ramsar Convention)[6]. All receptors that are qualifying features of European Sites (Natura 2000/Ramsar Sites) (or support such features), and which may potentially be affected by the Proposed Works have been considered within this screening process.

Species Zones of Influence and Corresponding Study Area

4.1.5 European Sites were included for either their physical proximity to the Works Area or linkage by way of mobile fauna that represent qualifying features and/or associated functionally linked habitat that could be of importance to mobile qualifying features.

4.1.6 All terrestrial European Sites featuring qualifying habitats that could be potentially affected were included if they fell within 5 km of the Works Area (**Figure 4.1: Study Areas Applied for HRA Screening**), based on an understanding of potential connectivity with non-mobile features, i.e. habitats. This search area also applies for non-migratory freshwater species, e.g. bullhead, however no pathways of effect are anticipated for this feature given the lack of connectivity.

4.1.7 European Sites featuring qualifying ornithological interests within 20 km of the Works Area (**Figure 4.1: Study Areas Applied for HRA Screening**) were identified (see **Chapter 5**), and Conservation Objectives for SPAs and Information Sheets for Ramsar Sites were also checked to identify terrestrial and marine birds known to use the coastal and open water environments (auks, wintering divers, gulls and cormorants, wintering grebes, wintering sea-ducks and breeding terns). Linkages were determined based on an understanding of potential connectivity with foraging range and movement between nesting colonies or roosting sites and foraging sites. For birds that use habitats outwith the European Site boundaries (such as wetland and farmland respectively), functional linkages were determined based on an understanding of potential connectivity with foraging range and movement between the roosting and foraging sites and through published literature. The 20 km search distance is generally considered to be the maximum distance beyond which most non-marine species of birds would not travel on a regular basis between foraging and roost sites[18].

4.1.8 Mobile designated features of European Sites (i.e. intertidal waders, wildfowl and seabirds, fish or marine mammals) may interact with the Proposed Works when remote from the relevant European Site. In order to identify sites where interactions could occur outwith the defined boundaries of European Sites, the following approaches were adopted:

- Passage and over-wintering concentrations of non-breeding bird qualifying features (passage and over-wintering populations) and breeding bird qualifying features were only included if their designated site or any functionally-linked habitat overlapped with any aspect of the Proposed Works Zone of Influence (ZoI). If there is no overlap, then the species have not been included for assessment.
- The distance from the nearest European Site with breeding seabird colonies is over 100 km from the Proposed Works, and the close to shore habitat within the ZoI of the Proposed Works, has not been found to support the typically open water species associated with European Sites with breeding seabird colonies with any regularity during the year (e.g. gannet, puffin, storm petrel, Manx shearwater). Therefore, functional linkage with seabirds associated with European sites supporting breeding colonies is considered unlikely and therefore these sites have been screened out from further consideration.
- For cetaceans, all European Sites which include harbour porpoise as a qualifying feature were included if they fell within a range of 200 km, selected based on the wide-ranging nature of cetaceans. This enables selection of relevant sites with potential for realistic interaction with the Proposed Works.
- A distance of 145 km has been applied for grey seal and 120 km for harbour seal, based on foraging ranges recorded by tracking studies[19].

[18] SNH (2016) Assessing connectivity with Special Protection Areas. Available online at: https://www.nature.scot/doc/assessing-connectivity-special-protection-areas (Accessed November 2022).
[19] Sea Mammal Research Unit (SMRU) (2011). Scientific Committee On Seals (SCOS) Scientific advice on matters related to the management of seal populations: 2011. Available online at: http://www.smru.st-andrews.ac.uk/files/2016/08/SCOS-2011.pdf (Accessed November 2022)

- For migratory fish, all SAC designated sites which include Annex II listed fish species within the south-west region of England were included (based on MMO 2016[20] & 2020[21]), due to the limited specific understanding of fish movements, ensuring potential for interaction with the Proposed Works is captured. This has included designated rivers (such as the rivers Axe, Avon, Itchen and Plymouth Sound) which do not discharge directly into the Severn Estuary. Although these rivers discharge elsewhere, e.g. into the English Channel, the behaviour of migratory fish at sea is not fully understood, and it is believed that they are drawn to many sources of freshwater on their migration routes. On that basis, potential connectivity cannot be ruled out, and they have been considered within this HRA process.

Table 4.1 Summary of specific search distances and source information used to identify potential effects on European Sites

Species/Taxa	Approximate ZoI	Source
Barbastelle bat	1 km	Collins (ed) (2016)[22]
Bechstein's bat	6 km	
Otter	32 km	Kruuk (1995)
Grey seal	145 km	Thompson *et al* (1996)[23]
Common seal	120 km	Sea Mammal Research Unit (SMRU) (2011)[19]
Cetaceans	200 km	
Migratory Fish species	All sites which include Atlantic salmon, sea lamprey, Allis shad (Alosa alosa) and Twaite shad within the southwest region.	MMO (2020)[24] JNCC (2022)[25]
River lamprey	Predominantly feed in estuaries as adults. ZoI therefore restricted to the Severn Estuary and tributaries thereof.	Maitland PS (2003)[26]

[20] MMO (2016) Pre-Screening Report for the North-East, North-West, South-East and South-West Marine Plans Habitats Regulations Assessments. A report produced for the Marine Management Organisation, pp 2. MMO Project No: 19768.
[21] MMO (2020) Habitats Regulations Assessment for the North East, North West, South East and South West Marine Plans: Screening Report and Appropriate Assessment Information Report. A report produced for the Marine Management Organisation, pp 232. MMO Project No: 1188.
[22] Collins, J. (ed.). (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd Edition. Bat Conservation Trust, London.
[23] Thompson, P. M., McConnell, B. J., Tollit, D. J., MacKay, A., Hunter C., and Racey. P. A. (1996) Comparative distribution, movements and diet of harbour and grey seals from Moray Firth, NE Scotland. Journal of Applied Ecology, 33(6):1572-1584.
[24] MMO (2020) MMO1188: Habitats Regulations Assessment for the North East, North West, South East and South West Marine Plans: Screening Report and Appropriate Assessment Information Report. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/857273/AAIR_final.pdf . (Accessed November 2022)
[25] JNCC (2022) Species List. Available online at: https://sac.jncc.gov.uk/species/ (Accessed November 2022)
[26] Ecology of the River, Brook and Sea Lamprey. Conserving Natura 2000 Rivers Ecology Series No. 5. English Nature, Peterborough.

4.2 Consultation

4.2.1 No specific consultation directly related to the HRA has been undertaken to date, however, the scope, approach, evidence base, and potential effects/receptors described herein will be discussed in consultation with stakeholders, prior to proceeding to any subsequent Appropriate Assessment if required. These stakeholders are anticipated to include:

- Marine Management Organisation (the MMO);
- Natural England;
- Natural Resources Wales; and
- Environment Agency.

4.2.2 Initial consultation will be conducted around the contents of this report, following its submission.

4.2.3 Following submission of the Scoping Report, a Pre-Application Opinion was provided by the ONR on 7 December 2022. Although not specifically in relation to the HRA Process, the key points from a biodiversity perspective have been considered here, as applicable.

European Sites Screened into the Assessment

4.2.4 There are a number of European Sites where qualifying features (including breeding seabirds, fish or marine mammals) may interact with the Proposed Works.

4.2.5 When considering the effects of the Proposed Works on European Sites, consideration has been given to the effects on qualifying interest features using terrestrial or marine habitats outwith the boundaries of the European Sites as well as within them. Such habitats can be classified as Functionally Linked Land (FLL). FLL in this context is defined as:

"*Areas of land or sea outside of the boundary of a European Site that may be important ecologically in supporting the populations for which the European Site has been designated or classified. Occasionally impacts to such habitats can have a significant effect upon the species interest of such sites, where these habitats are considered to be functionally linked to the site*"[27].

4.2.6 Details of the European Sites considered for assessment and their qualifying features are listed in **Table 4.2.** The distances provided are from the closest point of the Works Area boundary.

[27] Natural England (2016). Functional linkage: How areas that are functionally linked to European Sites have been considered when they may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Report NECR207, first published 29 February 2016.

Table 4.2 European Sites within the Study Area

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
Severn Estuary SPA	0km (N, E, S)	The Severn SPA extends over four NUTS administrative regions[28]; East Wales; Dorset and Somerset; West Wales and The Valleys; and Gloucestershire, Wiltshire and Bristol/Bath. The large urban developments of Bristol and Cardiff are located on the estuary. The SPA has an area of 24,489.91ha and 90.3% marine area. The Severn Estuary is "funnel" shaped, of south-west orientation, and has the world's second-largest tidal range. The general site character includes the habitat classes of tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (89.0% cover); salt marshes, salt pastures and salt steppes (6.0%); coastal sand dunes, sand beaches and machair (4.0%); and improved grassland (1.0%).[29]	Annex 1 species: Non-breeding/over-wintering • Bewick's swan (*Cygnus columbianus bewickii*) • Gadwall (*Anas Strepera*) • White-fronted goose (*Anser albifrons albifrons*) • Dunlin (*Calidris alpina alpina*) • Shelduck (*Tadorna tadorna*) • Redshank (*Tringa totanus*) • Waterbird assemblage
Severn Estuary Ramsar	0km (N, E, S)	Located between Wales and England, the site extends into the NUTS regions of Bro Morgannwg/Vale of Glamorgan; Caerdydd/Cardiff; Casnewydd/Newport; Avon; City of Bristol; Fynwy/Monmouthshire; Gloucestershire; Gwent; North Somerset; Somerset; South Glamorgan; South Gloucestershire. The Ramsar site has an area of 24,662.98ha. The Severn Estuary is shaped like a "funnel" and has an extensive intertidal zone. The physical conditions are extreme, with liquid mud and tide swept sand and rock. Sheltered mud, sandbanks	Ramsar criterion 5 Assemblages of international importance: • Species with peak counts in winter 70,919 waterfowl (5 year peak mean 1998/99-2002/2003). Ramsar criterion 6 Species/populations occurring at levels of international importance. Species with peak counts in winter: • Bewick's swan (*Cygnus columbianus bewickii*)

[28] For the purposes of Natura 2000, Administrative regions are defined according to the Nomenclature of Territorial Units for Statistics (Nomenclature des Unités Territoriales Statistiques or NUTS); a geocode standard for referencing the administrative divisions of countries for statistical purposes. These boundaries apply at level 2, i.e. at sub-regional level, and may thus group districts or unitary authorities together in some cases. Following the UK's exit from the EU, NUTS have been replaced with International Territorial Levels (ITLs), but older records (such as Natura 2000 forms) still refer to NUTS.

[29] Joint Nature Conservation Committee (JNCC), (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK9015022, Sitename: Severn Estuary. Available online at: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9015022.pdf (Accessed 1 December 2022)

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
		and marshes are also present. The intertidal zone contains mudflats, sand banks, shingle and rocky platforms.[30]	• Gadwall (*Anas Strepera*) • White-fronted goose (*Anser albifrons albifrons*) • Dunlin (*Calidris alpina alpina*) • Shelduck (*Tadorna tadorna*) • Redshank (*Tringa totanus*) Species/populations identified subsequent to designation for possible future consideration under criterion 6 Species regularly supported during the breeding season: • Lesser black-backed gull (*Larus fuscus graellsii*) Species with peak counts in spring/autumn: • Ringed plover (*Charadrius hiaticula*) Species with peak counts in winter: • Eurasian teal (*Anas crecca*) • Northern pintail (*Anas acuta*) Ramsar criterion 4 Supports plant and/or animal species at a critical stage in their life cycles and Ramsar criterion 8 Important source of food for fishes, spawning ground, nursery and/or migration path Salmon (*Salmo salar*), sea trout (*S. trutta*), sea lamprey (*Petromyzon marinus*), river lamprey (*Lampetra fluviatilis*), allis shad (*Alosa alosa*),

[30] Joint Nature Conservation Committee (JNCC), (2008), Information Sheet on Ramsar Wetlands (RIS): Severn Estuary. Available online at: https://jncc.gov.uk/jncc-assets/RIS/UK11081.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
			twaite shad (*A. fallax*), and European eel (*Anguilla Anguilla*).
Severn Estuary/Môr Hafren SAC	0km (W)	Located in the NUTS regions of Dorset and Somerset; East Wales; Gloucestershire, Wilshire and Bristol/Bath and Extra-Regio[31] territory, the SAC has an area of 73,714.11ha and is 98.0% marine area. The general site character includes the habitat classes of tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (99.0% cover) and salt marshes, salt pastures, and salt steppes (1.0%).[32]	Annex I habitats that are a primary reason for selection of this site: • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Reefs Annex II species that are a primary reason for selection of this site: • Sea lamprey (*Petromyzon marinus*) • River lamprey (*Lampetra fluviatilis*) • Twaite shad (*Alosa fallax*)
Exmoor and Quantock Oakwoods SAC	6.9km9 (SW)	Located in the NUTS regions of Dorset and Somerset, and Devon, the SAC has an area of 1,894.05ha and contains some of the largest oak woods in the south of England.[33] The general site character includes the habitat classes of broad-leaved deciduous woodland (87.0% cover); heath, scrub, maquis and garrigue, phygrana (6.0%); dry grassland, steppes (3.0%); mixed woodland (1.0%); coniferous	Annex I habitats that are a primary reason for selection of this site: • Old sessile oak woods with Ilex and Blechnum in the British Isles

[31] Extra-regio territory is made up of parts of the UK economic territory not attached directly to a single administrative region.
[32] Joint Nature Conservation Committee (JNCC), (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites, Site: UK0013030, Sitename: Severn Estuary/Môr Hafren. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013030.pdf (Accessed 1 December 2022).
[33] Natural England, (2019), European Site Conservation Objectives: Supplementary advice on conserving and restoring site features. Exmoor and Quantock Oakwoods Special Area of Conservation (SAC) UK0030148. Available online at: http://publications.naturalengland.org.uk/file/6175879818641408 (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
		woodland (1.0%); bogs, marshes, water fringed vegetation, fens (0.5%); inland water bodies (standing water, running water) (0.5%); other land (including towns, villages, roads, waste places, mines, industrial sites) (0.5%); and humid grassland, mesophile grassland (0.5%).[34]	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)* Priority feature Annex II species that are a primary reason for selection of this site: • Barbastelle *Barbastella barbastellus* Annex II species present as a qualifying feature, but not a primary reason for site selection: • Bechstein's bat (*Myotis bechsteinii*) • Otter (*Lutra lutral*)
Somerset Levels and Moors SPA	15.9km (E)	Located in the NUTS region of Dorset and Somerset, the SPA has an area of 6,395.47ha. The general site character includes the habitat classes of humid grassland, mesophile grassland (52.0% cover); improved grassland (26.0%); other land (including towns, villages, roads, waste places, mines, industrial sites) (5.0%); inland water bodies (standing water, running water) (5.0%); bogs, marches, water fringed vegetation, fens (5.0%); broad-leaved deciduous woodland (4.0%); non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas) (2.0%); and other arable land (1.0%).[35]	Annex 1 species Over winter the area regularly supports: • Bewick's swan (*Cygnus columbianus bewickii*) • Golden plover (*Pluvialis apricaria*) • Eurasian tealt (*Anas crecca*) • Lapwing (*Vanellus vanellus*) Internationally important assemblage of birds Over winter the area regularly supports: 73,014 waterfowl (5 year peak mean 1991/92-1995/96) including: Bewicks swan (*Cygnus columbianus bewickii)*, Eurasian teal (*Anas crecca*), golden

[34] Joint Nature Conservation Committee (JNCC), (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK003148, Sitename: Exmoor and Quantock Oakwoods. Accessed 1 December 2022. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030148.pdf (Accessed 1 December 2022).
[35] Joint Nature Conservation Committee (JNCC), (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK9010031, Sitename: Somerset Levels and Moors. Accessed 1 December 2022. Available online at: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9010031.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
			plover (*Pluvialis apricaria*) and lapwing (*Vanellus vanellus*)
Somerset Levels and Moors Ramsar	15.9km (E)	Located in the NUTS regions of North Somerset and Somerset, the Ramsar site has an area of 6,388ha. Several Sites of Special Scientific Interest (SSSI) make up the Ramsar site. Most of the site is a few metres above mean sea level, with large areas potentially affected by flooding in the winter. Some of the site in Brue Valley contains areas of former raised peat bog (now substantially modified). The site is important for breeding waders, and in winter, attracts internationally important numbers of wildfowl. Aquatic invertebrates are also supported.[36]	Ramsar criterion 5 Assemblages of international importance Species with peak counts in winter: • 97,155 waterfowl (5 year peak mean 1998/99-2002/2003) Ramsar criterion 6 Species/populations occurring at levels of international importance Species with peak counts in winter: • Eurasian eal (*Anas crecca*) • Lapwing (*Vanellus vanellus*) Species/populations identified subsequent to designation for possible future consideration under criterion 6. Species with peak counts in winter: • Eurasian wigeon (*Anas penelope*) • Mute swan (*Cygnus olor*) • Northern pintail (*Anas acuta*) • Northern shoveler (*Anas clypeata*)
River Usk / Afon Wsyg SAC	40km (W)	Located in the NUTS regions of East Wales, and West Wales and The Valleys, the SAC has an area of 967.97ha. The general site character includes the habitat classes of inland water bodies (standing water, running water) (37.9% cover); tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (26.8%); broad-leaved deciduous woodland (10.1%); dry grassland, steppes	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 *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

[36] Joint Nature Conservation Committee (JNCC), (2005), Information Sheet on Ramsar Wetlands (RIS): Somerset Levels and Moors. Available online at: https://rsis.ramsar.org/RISapp/files/RISrep/GB914RIS.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
		(8.0%); salt marshes, salt pastures, salt steppes (4.5% cover); bogs, marshes, water fringed vegetation, fens (3.8%); heath, scrub, marquis and garrigue, phygrana (3.4%); other land (including towns, villages, roads, waste places, mines, industrial sites) (2.1%); improved grassland (2.0%); and humid grassland, mesophile grassland (1.4%).[37]	Annex II species that are a primary reason for selection of this site: • Sea lamprey (*Petromyzon marinus*) • Brook lamprey (*Lampetra planeri*) • River lamprey (*Lampetra fluviatilis*) • Twaite shad (*Alosa fallax*) • Atlantic salmon (*Salmo salar*) • Bullhead (*Cottus gobio*) • Otter (*Lutra lutra*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Allis shad (*Alosa alosa*)
River Axe SAC	45km (~530km via marine routes) (S)	The River Axe SAC lies within the NUTS region of Devon. The lower reaches of the main River Axe in the south-western region have been designated primarily for the calcareous water that supports both *Ranunculion fluitantis* and Callitricho-Batrachion vegetation (water crowfoots and water starworts). The river discharges to the English Channel through Lyme Bay and the area is considered to support a significant presence of sea lamprey (*Petromyzon marinus*).	Annex I habitats that are a primary reason for selection of this site: • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation Annex II species present as a qualifying feature, but not a primary reason for site selection: • Sea lamprey (*Petromyzomn marinus*) • Brook lamprey (*Lampetra planeri*) • Bullhead (*Cottus gobio*)
River Wye / Afon Gwy SAC	59km (W)	Spanning the NUTS regions of Herefordshire, Worcestershire and Warwickshire; East Wales; West Wales and The Valleys; and Gloucestershire, Wiltshire and Bristol/Bath area, the SAC has an area of 2,147.64ha.The general site character includes the habitat classes of inland water bodies (standing water, running water) (52.5% cover);	Annex I habitats that are a primary reason for selection of this site: • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

[37] Joint Nature Conservation Committee (JNCC). (2015). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0013007, Sitename: River Usk/Afon Wysg. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013007.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
		broad-leaved deciduous woodland (12.3%); improved grassland (10.4%); tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (9.5%); dry grassland, steppes (5.3%); humid grassland, mesophile grassland (2.4%); bogs, marshes, water fringed vegetation, fens (3.1%); other land (including towns, villages, roads, waste places, mines, industrial sites) (1.8% cover); salt marshes, salt pastures, salt steppes (1.5%); heath, scrub, maquis and garrigue, phygrana (1.0%); and inland rocks, screes, sands, permanent snow and ice (0.2%).[38]	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Transition mires and quaking bogs Annex II species that are a primary reason for selection of this site: • White-clawed crayfish (*Austrapotamobius pallipes*) • Sea lamprey (*Petromyzon marinus*) • Brook lamprey (*Lampetra planeri*) • River lamprey (*L.fluviailis*) • Twaite shad (*Alosa fallax*) • Atlantic salmon (*salmo salar*) • Bullhead (*Cottus gobio*) • Otter (*Lutra lutra*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Allis shad (*Alosa alosa*)
River Clun SAC	130km (W)	Located in the NUTS regions of Herefordshire, Worcestershire and Warwickshire, and Shropshire and Staffordshire, the SAC has an area of 14.64ha. The general site character includes the habitat classes of improved grassland (55.0% cover); inland water bodies (standing water, running water) (33.0%); and broad-leaved deciduous woodland (12.0%).[39]	Annex II species present as a qualifying feature, but not a primary reason for site selection: • Freshwater pearl mussel (*Margaritiferid margratifera*)
Bristol Channel Approaches /	90km (NW)	The SAC spans the Bristol Channel, between the north coast of Cornwall to Carmarthen Bay (Wales) in the Western Channel and Celtic Sea marine region. The SAC has an area of 584,994.0ha and	Annex II species that are a primary reason for selection of this site: • Harbour porpoise (*Phocoena Phocoena*)

[38] Joint Nature Conservation Committee (JNCC). (2015). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0012642, Sitename: River Wye/Afon Gwy. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0012642.pdf (Accessed 1 December 2022).
[39] Joint Nature Conservation Committee (JNCC) (2015). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0030250, Sitename: River Clun. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030250.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
Dynesfeydd Môr Hafren SAC		100% marine area. The general site character includes the habitat classes of improved marine areas, sea inlets (100% cover).[40]	
River Avon SAC	102km (SE)	The SAC extends into four NUTS regions; Dorset and Somerset; Gloucestershire; Wiltshire and Bristol/Bath; and Hampshire and Isle of Wight. The Avon discharges to the English Channel through Christchurch Harbour(). It (Dorset). It is a large, lowland river system that includes sections running through chalk and clay supporting five water crowfoot (*Ranunculus*) species. Two migratory fish species listed under annex II are a primary reason for selection of this site: Atlantic salmon and sea lamprey.	Annex I habitats that are a primary reason for selection of this site: • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation Annex II species that are a primary reason for selection of this site: • Desmoulin's whorl snail (*Vertigo moulinsiana*) • Sea lamprey (*Petromyzon marinus*) • Brook lamprey (*Lampetra planeri*) • Atlantic salmon (*Salmo salar*) • Bullhead (*Cottus gobio*)
Lundy SAC	105km (W)	Located in the NUTS region of Devon, the SAC has an area of 3,070.95ha and is 99.9% marine area. The general site character includes the habitat classes of marine areas, sea inlets (95% cover), shingle, sea cliffs, islets (4.0%), and coastal sand dunes, sand beaches, machair (1.0%).[41]	Annex I habitats that are a primary reason for selection of this site: • Reefs Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Submerged or partially submerged sea caves Annex II species present as a qualifying feature, but not a primary reason for site selection:

[40] Joint Nature Conservation Committee, (2019), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0030396, Sitename: Bristol Channel Approaches / Dynesfeydd Môr Hafren. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030396.pdf (Accessed 1 December 2022).
[41] Joint Nature Conservation Committee, (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0013114, Sitename: Lundy. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013114.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
			• Grey seal (*Halichoerus grypus*)
Pembrokeshire Marine / Sir Benfro Forol SAC	121km (W)	Located in the NUTS regions of West Wales and The Valleys, and Extra-Regio territory, the SAC has an area of 138,038.5ha and is 99.3% marine area. The general site character includes the habitat classes of marine areas, sea inlets (96.0% cover), tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (3.8%), and salt marshes, salt pastures, salt steppes (0.2%).[42]	Annex I habitats that are a primary reason for selection of this site: • Estuaries • Large shallow inlets and bays • Reefs Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Mudflats and sandflats not covered by seawater at low tide • Coastal lagoons • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • Submerged or partially submerged sea caves Annex II species that are a primary reason for selection of this site: • Grey seal (*Halichoerus grypus*) • Shore dock (*Rumex rupestris*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Sea lamprey (*Petromyzon marinus*) • River lamprey (*Lampetra fluviatilis*) • Allis shad (*Alosa alosa*) • Twaite shad (*A.fallax*) • Otter (*Lutra lutra*)

[42] Joint Nature Conservation Committee, (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0013116, Sitename: Pembrokeshire Marine/Sit Benfro Forol. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013116.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
Cardigan Bay / Bae Ceredigion SAC	138km (NW)	Located in the NUTS regions of West Wales and The Valleys, and Extra-Regio, the SAC has an area of 95,857.06ha and is 99.5% marine area. The general site character includes the habitat classes of marine areas, sea inlets (99.5% cover); coastal sand dunes, sand beaches, machair (NaN%); shingle, sea cliffs, islets (0.4%); inland water bodies (standing water, running water) (NaN%); heath, scrub, maquis and garrigue, phygrana (0.1%); and broad-leaved deciduous woodland (NaN%).[43]	Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Reefs • Submerged or partially submerged sea caves Annex II species that are a primary reason for selection of this site: • Bottlenose dolphin (*Tursiops truncatus*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Sea lamprey (*Petromyzon marinus*) • River lamprey (*Lampetra fluviatilis*) • Grey seal (*Halichoerus grypus*)
Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau SAC	151km (NW)	Located in the NUTS regions of West Wales and The Valleys, East Wales and Extra-Regio, the SAC has an area of 146,010.52ha and is 98.8% marine area. The general site character includes the habitat classes of marine areas, sea inlets (92.6% cover); tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (5.4%); salt marshes, salt pastures, salt steppes (1.2%); coastal sand dunes, sand beaches, machair (0.5%); shingle, sea cliffs, islets (0.2%); and bogs, marshes, water fringed vegetation, fens (0.1%).[44]	Annex I habitats that are a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Estuaries • Coastal lagoons • Large shallow inlets and bays • Reefs Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

[43] Joint Nature Conservation Committee, (2015), STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0012712, Sitename: Cardigan Bay/Bae Ceredigion. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0012712.pdf (Accessed 1 December 2022).
[44] Joint Nature Conservation Committee (JNCC). (2015). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0013117, Sitename: Pen Lln a`r Sarnau/ Lleyn Peninsula and the Sarnau. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013117.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
			• Mudflats and sandflats not covered by seawater at low tide • Salicornia and other annuals colonizing mud and sand • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • Submerged or partially submerged sea caves Annex II species present as a qualifying feature, but not a primary reason for site selection: • Bottlenose dolphin (*Tursiops truncatus*) • Otter (*Lutra lutra*) • Grey seal (*Halichoerus grypus*)
Plymouth Sound and Estuaries SAC	107km (SW)	Located in the NUTS regions of Devon, Cornwall and Isles of Scilly, and Devon, the SAC has an area of 6,386.95ha and is 89.2% marine area. The general site character includes the habitat classes of marine areas, sea inlets (50%); tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (40%); salt marshes, salt pastures, salt steppes (5%); coastal sand dunes, sand beaches machair (2%); and shingle, sea cliffs, islets (3%).[45]	Annex I habitats that are a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Estuaries • Large shallow inlets and bays • Reefs • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site: • Mudflats and sandflats not covered by seawater at low tide

[45] Joint Nature Conservation Committee (JNCC). (2015). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0013111, Sitename: Plymouth Sound and Estuaries. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013111.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
			Annex II species that are a primary reason for selection of this site: • Shore dock (*Rumex rupestris*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Allis shad (*Alosa alosa*)
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	79km (NW)	Located in the NUTS regions of West Wales and The Valleys, Extra-Regio and East Wales, the SAC has an area of 66,092.05ha and is 99.3% marine area. The general site character includes the habitat classes of marine areas, sea inlets (82.1%); tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (13.7%); salt marshes, salt pastures, salt steppes (4.1%); and shingle, sea, cliffs, islets (0.1%).[46]	Annex I habitats that are a primary reason for selection of this site: • Sandbanks which are slightly covered by sea water all the time • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Large shallow inlets and bays • Salicornia and other annuals colonizing mud and sand • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) Annex II species that are a primary reason for selection of this site: • Twaite shad (*Alosa fallax*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Sea lamprey (*Petromyzon marinus*) • River lamprey (*Lampetra fluviatilis*) • Allis shad (*Alosa alosa*) • Otter (*Lutra lutra*)

[46] Joint Nature Conservation Committee (JNCC). (2015). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0020020, Sitename: Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoe*dd.* Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0020020.pdf (Accessed 1 December 2022).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
West Wales Marine / Gorllewin Cymru Forol SAC	138km (NW)	Located to the West of Wales (Extra-Regio), the SAC has an area of 737,614.0ha and is 100% marine area. The general site character includes the habitat classes of marine areas, sea inlets (100%).[47]	Annex II species that are a primary reason for selection of this site: • Harbour porpoise (*Phocoena phocoena*)
Afon Tywi/ River Tywi SAC	107km (NW)	The Afon Tywi, situated in the NUTS region of West Wales and The Valleys, flows from the Cambrian mountains to the end of the SAC boundary in the tidal reaches south of Carmarthen, where it enters the Carmarthen Bay & Estuaries SAC[48]. The site has an area of 375.83ha and its general character comprises the following habitats: tidal rivers, estuaries, mud flats, sand flats, lagoons (including saltwork basins) (9%); salt marshes, salt pastures, salt steppes (2%); shingle, sea cliffs, islets (7%); inland water bodies (standing water, running water) (62%); bogs, marshes, water fringed vegetation, fens (6%); heath, scrub, maquis and garrigue, phygrana (4%); improved grassland (3%); and broad-leaved deciduous woodland (7%)[49].	Annex II species that are a primary reason for selection of this site: • Twaite shad (*Alosa fallax*) • Otter (*Lutra lutra*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Sea lamprey (*Petromyzon marinus*) • Brook lamprey (*Lampetra planeri*) • River lamprey (*Lampetra fluviatilis*) • Allis shad (*Alosa alosa*) • Bullhead (*Cottus gobio*)
River Clun SAC	130km (N)	Located in the NUTS regions of Herefordshire and Shropshire, the SAC only includes the lower sections of River Clun and flows from the confluence with the Teme to Broadward Bridge near Marlow[50]. The site has an area of 14.64ha and habitats within the general site character include inland water bodies (standing water, running water)	Annex II species present as a qualifying feature, but not a primary reason for site selection: • Freshwater pearl mussel (*Margaritifera margaritifera*) (freshwater species therefore screened out of subsequent assessment)

[47] Joint Nature Conservation Committee (JNCC). (2019). STANDARD DATA FORM for sites within the 'UK national site network of European sites', Site: UK0030397, Sitename: West Wales Marine / Gorllewin Cymru Forol. Available online at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030397.pdf (Accessed 1 December 2022).
[48] Countryside Council for Wales (2022). Core management plan (including conservation objectives) for Afon Tywi/ River Tywi SAC (Special Area of Conservation). Available online at: https://naturalresources.wales/media/682845/afon-teifi-river-teifi-management-plan.pdf (Accessed 11 January 2023).
[49] JNCC (no date). Afon Tywi/ River Tywi. Available online at: https://sac.jncc.gov.uk/site/UK0013010 (Accessed 11 January 2023).
[50] Natural England (2005). EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora, Citation for Special Area of Conservation (SAC). Available at: https://www.google.com/url?client=internal-element-cse&cx=016466427749889765075:9dnxorwiphg&q=http://publications.naturalengland.org.uk/file/4855330563424256&sa=U&ved=2ahUKEwiX_dDA8t_8AhW5gP0HHcAaB1cQFnoECAcQAQ&usg=AOvVaw1ytgi5xWz_I0EvayRd4uZm (Accessed 11 January 2023).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
		(33%), improved grassland (55%), and broad-leaved deciduous woodland (12%)[51].	
River Itchen SAC	130km (SE)	The River Itchen is a sub-type 1 chalk river (Annex I habitat) which is located in the NUTS region of Hampshire and the Isle of Wight. The SAC has an area of 303.98ha[52,53]. The general site character comprises the following habitats: inland water bodies (standing water, running water) (40%); bogs, marshes, water fringed vegetation, fens (27%); humid grassland, mesophile grassland (19%); improved grassland (1%); broad-leaved deciduous woodland (10%); mixed woodland (2%); and non-forest cultivated with woody plants (including orchards, groves, vineyards, dehesas) (1%).	Annex I habitats that are a primary reason for selection of this site: • Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation Annex II species that are a primary reason for selection of this site: • Southern damselfly (*Coenagrion mercuriale*) • Bullhead (*Cottus gobio*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • White-clawed crayfish (*Austropotamobius pallipes*) • Brook lamprey (*Lampetra planeri*) • Atlantic salmon (*Salmo salar*) • Otter (*Lutra lutra*)
Afonydd Cleddau / Cleddau Rivers SAC	142km (NW)	The River Cleddau, comprising an area of 751ha, can be divided into eastern and western arms of the river[54]. It is situated within the NUTS regions of West Wales and The Valleys and the general site character includes the following habitats: inland water bodies (standing water, running water) (26%); bogs, marshes, water fringed vegetation, fens (17%); heath, scrub, maquis and garrigue, phygrana (17%%); dry	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 *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation • Active raised bogs * Priority feature

[51] JNCC (no date). River Clun. Available online at: https://sac.jncc.gov.uk/site/UK0030250 (Accessed 11 January 2023).
[52] JNCC (no date). River Itchen. Available at: https://sac.jncc.gov.uk/site/UK0012599 (Accessed 11 January 2023).
[53] Natural England (2019). European Site Conservation Objectives for River Itchen SAC (UK0012599). Available online at: http://publications.naturalengland.org.uk/publication/5130124110331904 (Accessed 11 January 2023).
[54] Countryside Council for Wales (2012). Core management plan (including conservation objectives) for Afonydd Cleddau/Cleddau Rivers SAC (Special Area of Conservation). Available online at: https://naturalresources.wales/media/682866/afonydd-cleddau-plan-english.pdf (Accessed 11 January 2023).

Site Name	Approx. distance from the Works Area	Site Description	Qualifying features
		grassland, steppes (2%); improved grassland (9%); other arable land (0.3%); broad-leaved deciduous woodland (26%); coniferous woodland (2%); other woodland (0.2); and other land (including towns, villages, roads, waste places, mines, industrial sites (0.5%)[55].	• Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)* Priority feature Annex II species that are a primary reason for selection of this site: • Brook lamprey (*Lampetra planeri*) • River lamprey (*Lampetra fluviatilis*) • Bullhead (*Cottus gobio*) • Otter (*Lutra lutra*) Annex II species present as a qualifying feature, but not a primary reason for site selection: • Sea lamprey (*Petromyzon marinus*)

[55] JNCC (no date). Afonydd Cleddau/ Cleddau Rivers. Available online at: https://sac.jncc.gov.uk/site/UK0030074 (Accessed 11 January 2023).

4.3 Marine Biodiversity Baseline

Data Sources

4.3.1 The principal marine ecology data sources used to inform the baseline characterisation for the HRA comprise the following:

- Defra Magic Map Application[56]; and
- Sea Watch Foundation sightings[57].

4.3.2 In addition, site-specific surveys were undertaken in the marine and coastal environment between 2020 and 2022, including bathymetry, sidescan sonar, drop-down video, subtidal grab sampling, water quality monitoring and habitat mapping, the results of which will be used to inform the baseline. These are included in **Appendix 9A** and **Appendix 9B** of the **ES** submitted with the application for decommissioning consent.

Intertidal Ecology

4.3.3 A total of twelve biotopes (eight hard substrate and four sedimentary) were recorded during the intertidal validation survey of the foreshore adjacent to HPB on 26 and 27 October 2022.

4.3.4 Biotopes recoded ranged from those typical of more sheltered shores in the upper shore, with a transition to sedimentary biotopes in the more exposed environments further out in the Severn Estuary. A few changes in the upper shores of the survey area were noted since the 2020 phase 1 survey, with barren shingle (LS.LCS.Sh.BarSh) extending further down the shore than previously observed.

4.3.5 The 2022 habitat validation survey was able to access more of the intertidal area due to the lower tide conditions which applied at that time. This allowed for more of the limestone layers to be exposed and greater access to the lower shore. Due to this there was a greater extent of the biotopes LS.LBR.Sab.Salv and LR.Rkp.Cor.Cor recorded compared to the 2020 Phase 1 habitat survey.

4.3.6 The lower tide during the 2022 survey also allowed better discrimination of biotopes in some areas of the lower shore, resulting in some changes to the list of biotopes recorded. However, these remain broadly consistent with the results of the 2020 Phase 1 habitat survey and the overall conclusion is that there has been no significant change in the intertidal biotopes and their distribution since 2020, except for changes noted above.

4.3.7 No priority marine features, protected species or other notable fauna or flora were recorded during the habitat validation survey.

Benthic Ecology

4.3.8 Benthic sampling offshore of HPB was undertaken in November 2020, with works completed in two phases. Bathymetric and side-scan sonar (SSS) data were collected and analysed to inform the locations for subsequent benthic grab sampling. Surveys covered

[56] Defra (2022). Magic Map Application. Available online at: https://magic.defra.gov.uk/magicmap.aspx (Accessed November 2022).
[57] Sea Watch Foundation, (2021). Available online at: https://www.seawatchfoundation.org.uk/wp-content/uploads/2022/01/NWDW-2021-Report_FINAL-2.pdf (Accessed November 2022).

two overlapping areas, each measuring 2 km in diameter, with one centred on the HPB Cooling Water Intake Structure and the second on the HPB cooling water discharge pipe.

4.3.9 The benthic ecology in each of the principal habitats identified has been assessed through a suite of surveys including grab sampling. The dominant/characteristic species identified from each grab sample were examined in detail and used to create a biotope map of the subtidal area. In order to ensure overlap with the intertidal survey, the shallowest intertidal areas were surveyed at or around high water. When aligned with the intertidal surveys as described above, this gave the greatest coverage available of the marine and coastal habitats of interest to this HRA, i.e. those in the immediate vicinity of the Proposed Works, and with the greatest potential for interaction with associated activities.

4.3.10 The seabed in the subtidal region of the survey area was found to predominantly consist of soft sediments. The sediment types most frequently identified were muds and sandy muds, these were distributed throughout the survey area. In addition, areas of sands and muddy sands were identified close inshore.

4.3.11 In the northwest of the survey area, an area of *Sabellaria alveolata*, Annex I biogenic reef was identified, covering an area of approximately 50,200 m^2.

4.3.12 Macrobenthic invertebrate analysis of grab samples identified a total of 3,488 individuals in 61 taxa, dominated by annelid worms (69.9 %) and molluscs (19.9 %). The most common taxa identified included the biogenic reef-forming polychaete *S. alveolata*, which was identified in five of the 18 samples, the oligochaete *Tubificoides amplivasatus* and the bivalve *Limecola balthica*.

4.3.13 Benthic infaunal communities within the Inner Bristol Channel and Severn Estuary are generally noted as being impoverished assemblages, dominated by opportunistic species, mainly due to the high instability of the seabed habitats, due to the prevailing dynamic sedimentary regime. This general observation was further supported by the site-specific benthic surveys, as described above.

Marine Mammals

4.3.14 A number of marine mammals are typically recorded as being present either throughout the year, or seasonally, within the Bristol Channel. These include harbour porpoise (*Phocoena phocoena*), Risso's dolphin (*Grampus griseus*), common dolphin (*Delphinus delphis*), bottlenose dolphin (*Tursiops truncatusu*) and minke whale (*Balaenoptera acutorostrata*)[58] . Occasional sightings and strandings of other cetaceans such as long-finned pilot whale (*Globicephala melas*), fin whale (*Balaenoptera physalus*) and killer whale (*Orcinus orca*) have been recorded, although these remain scarce[59].

4.3.15 The most common cetacean recorded in the Bristol Channel is the harbour porpoise (including the population associated with the Bristol Channel Approaches SAC), followed by the common dolphin. Of the pinnipeds, only the grey seal (*Halichoerus grypus*) is observed regularly within the Bristol Channel / Severn Estuary.

4.3.16 Although no specific marine mammal surveys were undertaken to inform this HRA, opportunistic field observations were made during the site-specific intertidal, benthic or boat-based water quality surveys, with any sightings recorded to be used as anecdotal information to support baseline characterisation. No marine mammals were observed during the site-specific marine surveys undertaken over the period 2020-2022, although it

[58] Baines, M.E. and Evans, P.G.H. (2012). Atlas of the Marine Mammals of Wales. CCW Monitoring Report No. 68. 2nd edition. 139pp

[59] Reid, J.B., Evans, P.G.H, Northridge, S.P. (2003). Atlas of Cetacean distribution in North West European waters, 76 pages, colour photos, maps. Paperback, ISBN 1 86107 550 2

is noted that harbour porpoise has occasionally been observed by ornithology and ecology teams working on the HPC site during this time period.

Fish

4.3.17 The broader fish population of the Severn Estuary and Bristol Channel is of similar species composition to that of other estuaries and coastal regions in south-west England. The Severn Estuary Dataset (SEDS)[60] provides long-term data on the abundance and species richness of fish in the Inner Bristol Channel - a total of 83 estuarine and marine fish species have been recorded since surveys began[61]. Henderson[62] reported the most common species as sprat (*Sprattus sprattus*), whiting (*Merlangius merlangus*) and sand goby (*Pomatoschistus minutus*). Both JNCC[63] and the *S*evern Estuary Partnership[64] state that over 110 species are recorded in the Estuary.

4.3.18 Most fish species at Hinkley Point are not present in significant numbers for the entire year, with the community composition changing throughout the year. As almost all species of fish present within the Severn Estuary undertake regular migrations and tend to move seasonally up and down the estuary. Both species richness and the total abundance reach a maximum in late summer and autumn - the timing of this peak varies between the upper and lower estuary[61]. The estuary is primarily used by marine species as a nursery ground due to the extensive and highly productive areas of shallow marginal mudflat that provide feeding opportunities for juveniles.

4.3.19 Seven diadromous fish species are known to migrate through the Severn Estuary; Atlantic salmon (*Salmo salar*), twaite shad (*Alosa fallax*), allis shad (*Alosa alosa*), river lamprey (*Lampetra fluviatilis*), sea lamprey (*Petromyzon marinus*), sea trout (*Salmo trutta*), and European eel (*Anguilla anguilla*). The Estuary is also considered internationally important for eels, supporting 98% of the UK elver run.

4.4 Marine and Intertidal Ornithology Baseline

Data Sources

4.4.1 The following principal marine and intertidal ornithology data sources have been reviewed and where relevant, used to inform the baseline characterisation for the HRA:

- Information regarding European Sites was acquired using MAGIC Defra's map;
- Wetland Bird Survey (WeBS) data was obtained from Frost *et al* 2020[65].

[60] Medin (2022) Metadata: Severn Estuary Database Phase 2. Available online at: https://portal.medin.org.uk/portal/start.php?tpc=007_4f4c4942-4343-5764-6473-303234323637&step=0017 (Accessed November 2022).
[61] Henderson, P.A. and Bird, D.J., 2010. Fish and macro-crustacean communities and their dynamics in the Severn Estuary. Marine pollution bulletin
[62] Henderson, P.A., 1989. On the structure of the inshore fish community of England and Wales. Journal of the Marine Biological Association of the United Kingdom, 69(1), pp.145-163.
[63] JNCC (1995). Information Sheet on Ramsar wetlands (RIS). Available online at: https://jncc.gov.uk/jncc-assets/RIS/UK11081.pdf (Accessed January 2023).
[64] Asera (no date). Fish of the Severn Estuary European Marine Site. Available online at: https://asera.org.uk/features/fish/ (Accessed January 2023)
[65] Frost, T.M., Calbrade, N.A., Birtles, G.A., Mellan, H.J., Hall, C., Robinson, A.E., Wotton, S.R., Balmer, D.E. and Austin, G.E. 2020. Waterbirds in the UK 2018/19: The Wetland Bird Survey. BTO/RSPB/JNCC; Thetford, UK.

- Breeding seabird data was extracted from the JNCC, Seabird Monitoring Programme (SMP) Database[66];
- Hinkley Point B Decommissioning EIA Baseline Report: Breeding and Non-breeding Birds[67]
- Hinkley Point B Nuclear Power Station Nesting Gull Population Surveys[68] (2020, 2021,2022 and 2023);
- HPC Discharge of condition J2 - Shelduck Monitoring and Mitigation
  - Shelduck Monitoring and Mitigation Scheme[69].
  - Report to Inform Habitats Regulations Assessment for Proposals to Install terrestrial Mitigation Measures at Steart Point[70]
  - Shelduck Distribution, Population and Disturbance Survey Reports (2017, 2018, 2019[71], 2020[72], 2021[73], 2022[74] and 2023[75])
- HPC Discharge of condition C2 – River Parrett Winter Waterfowl Monitoring
  - Combwich Wharf and River Parrett Non-breeding Wildfowl and Wader Contingent Mitigation Strategy[76];
  - Hinkley Point C River Parrett Wader and Wildfowl Monitoring Reports 2017/18; 2018/2019[77]; 2019/2020; 2020/2021[78].
- Hinkley Point B Land Management Annual Review[79] - 2019, 2020, 2021 and 2022[80].[81].
- HPC Annual Ecological Monitoring Reports

[66] JNCC (2020). Seabird Monitoring Programme. Available online at: https://app.bto.org/seabirds/public/index.jsp (Accessed November 2022).
[67] Wood (2022) Hinkley Point B Decommissioning EIA Baseline Report: Breeding and non-breeding birds. EDF Energy
[68] Wood (2020/2021/2022/2023) Hinkley Point B Nuclear Power Station Nesting Gull Population Surveys 2020/2021/2022/2023
[69] NNB GenCo (HPC) Ltd. (January 2019). Shelduck Monitoring and Mitigation Scheme. HPC-GEN400-XX-000-REP-100078. Version 04.
[70] NNB GenCo (HPC) Ltd. (May 2019). Report to Inform Habitats Regulations Assessment for Proposals to Install terrestrial Mitigation Measures at Steart Point.
[71] NNB GenCo (HPC) Ltd. (September 2021). Shelduck Distribution, Population and Disturbance Survey Report – 2017/2018/2019
[72] NNB GenCo (HPC) Ltd. (January 2022). Hinkley Point C Nuclear New Build Shelduck Phase 1 Monitoring – 2020
[73] NNB GenCo (HPC) Ltd. (May 2022). Hinkley Point C Nuclear New Build Shelduck Phase 1 Monitoring – 2021
[74] NNB GenCo (HPC) Ltd. (November 2022). Hinkley Point C Nuclear New Build Shelduck Phase 2 Monitoring – 2022
[75] NNB GenCo (HPC) Ltd. (December 2023). Hinkley Point C Nuclear New Build Shelduck Phase 2 Monitoring – 2023
[76] NNB GenCo (HPC) Ltd. (February 2019). Combwich Wharf and River Parrett Non-breeding Wildfowl and Wader Contingent Mitigation Strategy. HPC-GEN400-XX-000-REP-100078. Version 02.
[77] NNB GenCo (HPC) Ltd. (November 2020). Hinkley Point C River Parrett Wader and Wildfowl Monitoring 2017/2018 and 2018/19 – Final Reports
[78] NNB GenCo (HPC) Ltd. (Feb/Jan/April 2022). Hinkley Point C River Parrett Wader and Wildfowl Monitoring 2019/20, 2020/21 and 2021/22 – Draft Report.
[79] EDF Energy Nuclear Generation Ltd (2014 to 2018). Hinkley Point B Land Management Annual Review
[80] EDF Energy Nuclear Generation Ltd (2022). Hinkley Point B Land Management Annual Review
[81] EDF Energy Nuclear Generation Ltd (2022). Hinkley Point B Land Management Annual Review

- Hinkley Point C Annual Ecological Monitoring Reports (2017[82], 2018[83], 2019[84], 2020[85] , 2021[86], 2022[87], 2023[88] and 2024[89]).

- Severn Estuary SPA Functionally Linked Land Study – Avon and Somerset Link Ecology Ltd[90].

Non-breeding Birds [Species records and monitoring data]

Non-breeding Bird Surveys [HPB Decommissioning EIA]

4.4.2 Intertidal non-breeding bird surveys were undertaken (Wood, 2022) to collect data on the distribution and assemblages of waterbird species that use parts of the Severn Estuary SPA/Ramsar that are in close proximity to the Proposed Works Area.

4.4.3 Instantaneous Scan Samples (ISS) were undertaken to record how waterbirds use two survey sectors (Sector 1 and Sector 2) within the Study Area. Surveys focused on intertidal habitats within 500m of the Site. On each survey date two surveyors undertook six hours of simultaneous survey, one located at each observation point (OP) in order to observe any changes/patterns in the distribution of waterbirds across the tide. Two survey visits each month (fourteen in total) were completed between September 2019 and March 2020 inclusive.

4.4.4 The non-breeding bird assemblage within the Study Area was found to primarily comprise relatively low numbers of common and widespread species that are typical of the county (Somerset) and the habitats present (beach, shale, rock bed and open estuary).

- Three species are listed as individual qualifying features of the Severn Estuary SPA and Severn Estuary Ramsar (dunlin, redshank and shelduck);

- Two species are listed as individual qualifying features of the Somerset Levels and Moors SPA and Ramsar (lapwing and teal).

4.4.5 Data from these surveys are presented in **Appendix B: Bird Survey – Survey Data Summary of Qualifying Interest Species**.

Non-breeding Bird Surveys [HPC Annual Monitoring]

4.4.6 Intertidal non-breeding bird counts were conducted from a single vantage point across five count areas (1 – 5), together covering all intertidal and near shore habitats to 500m of the proposed Hinkley C Site. This was equivalent to the previously defined zone of potential disturbance associated with the site preparation phase of HPC new nuclear build. Count Areas 2, 3, 4 and 5 lie within 500m of the HPB Proposed Works Area. Five years of annual monitoring counts are summarised:

- 2016/2017: A total of 21 waterbird species were recorded in winter 2016/17. The fewest number of observations were recorded in Count Area 2 and the most

[82] NNB GenCo (HPC) Ltd. (January 2018). Hinkley Point C Annual Ecological Monitoring Report 2017: Main Site
[83] NNB GenCo (HPC) Ltd. (March 2019). Hinkley Point C Annual Ecological Monitoring Report 2018: Main Site
[84] NNB GenCo (HPC) Ltd. (January 2020). Hinkley Point C Annual Ecological Monitoring Report 2019: Main Site
[85] NNB GenCo (HPC) Ltd. (September 2021). Hinkley Point C Annual Ecological Monitoring Report 2020: Main Site
[86] NNB GenCo (HPC) Ltd. (May 2022). Hinkley Point C Annual Ecological Monitoring Report 2021: Main Site
[87] NNB GenCo (HPC) Ltd. (June 2023). Hinkley Point C Annual Ecological Monitoring Report 2022: Main Site
[88] NNB GenCo (HPC) Ltd. (July 2024). Hinkley Point C Annual Ecological Monitoring Report 2023: Main Site
[89] NNB GenCo (HPC) Ltd. (June 2024). Hinkley Point C Annual Ecological Monitoring Report 2024: Main Site
[90] Link Ecology Ltd (2021). Identification of Land with proven or possible functional linkages with the Severn Estuary SSSI/SPA Phase 6 (Avon and Somerset). Report for Natural England.

observations were recorded in Count Area 5 to the east of the Proposed Working Area.

- 2017/18: A total of 23 water bird species were recorded in winter 2017/18. Count Area 1 had the fewest number of significant counts throughout the survey with the highest number of significant counts coming from the intertidal area in front of HPA and HPB (Count Area 3).This reflects the known relative importance of the intertidal habitats dominated by soft substrates in front of HPA and HPB compared to the narrower and rock dominated intertidal areas in Count Areas 1 and 5. In comparison to the 2016/2017 results, the number of significant counts in Count Area 2 was found to have increased, suggesting that the impacts of construction activities on intertidal birds due to the HPC construction works in this area had decreased.
- 2018/19: A total of 19 water bird species were recorded in winter 2018/19. The fewest number of observations were recorded in Count Area 1 and the most observations were recorded in Count Area 5.
- 2019/20: A total of sixteen waterbird species were recorded in winter 2019/2020. The survey area was used in the 2019/20 winter period by seven species listed on the Severn estuary SPA citation as supporting either national or internationally important wintering populations, these included: curlew, grey plover, pintail, redshank, ringed plover, shelduck and wigeon. Counts of water birds within the survey area were lower than other nearby tidal areas close to Stert Point and at the mouth of the River Parrett, Wall Common and Steart Marshes (all of which are >7km from the Proposed Works Area).
- A total of sixteen waterbird species were recorded in winter 2020/2021. The survey area was used in the 2020/21 winter period by eight species listed on the Severn estuary SPA citation as supporting either national or internationally important wintering populations, theses were: curlew, dunlin, grey plover, pintail, redshank, ringed plover, shelduck and wigeon. Counts of water birds within the survey area were lower than other nearby tidal areas close to Stert Point and at the mouth of the River Parrett, Wall Common and Steart Marshes.
- A total of fourteen waterbird species were recorded in winter 2021/2022. The survey area was used in the 2021/22 winter period by eight species listed on the Severn Estuary SPA citation as supporting either national or internationally important wintering populations, these were: curlew, dunlin, grey plover, pintail, redshank, ringed plover, shelduck and wigeon. Counts of water birds within the survey area were lower than other nearby tidal areas close to Stert Point and at the mouth of the River Parrett, Wall Common and Steart Marshes.

4.4.7 Data from these surveys are presented in **Appendix B: Bird Survey – Survey Data Summary of Qualifying Interest Species**.

Shelduck Monitoring and Mitigation [HPC Discharge of condition J2]

4.4.8 Monitoring of shelduck at the mouth of the River Parrett and Bridgwater Bay has been undertaken annually, as required by Condition J2 of the Hinkley Point C – Development Consent Order (DCO). Surveys have been undertaken to measure population, distribution and background disturbance, (previously undertaken in 2012 and 2014-23 (ongoing) during the other Phase 1 monitoring periods). Population surveys have been a key component in informing population and behavioural trigger points associated with the Shelduck Monitoring and Mitigation Strategy (SMMS). Distribution surveys have also been required in order to assess any significant changes in baseline distribution.

4.4.9 The last six years of Phase 1 monitoring (2017 – 2023) recorded peak counts across the Study Area between late July and early September, with most peak counts recorded between early August and early September. Phase 2 monitoring followed in 2022 and 2023, also including monitoring of large vessel movements associated with HPC nuclear new build and the responses of moulting shelduck within Bridgwater Bay. This monitoring recorded peak counts in late July and late September respectively, with the highest peak count since the surveys began in 2012 recorded in July 2022. There were no records of shelduck being significantly disturbed during the vessel monitoring surveys. Shelduck were regularly disturbed in numbers that exceeded 5% of the baseline population but those disturbance events generally lasted less than five minutes after the passing of the vessel responsible for the disturbance event.

4.4.10 The distribution surveys undertaken from 2017 to 2023 show that shelduck congregate within two hours of high tide within a 'core roosting area' between Stert Point, Stert Island and nearby in Bridgwater Bay (approximately 7km to the east of the Proposed Works Area at the nearest location), with the majority forming a 'raft' on the sea. During the moult the flightless period for shelduck normally lasts between 25-31 days (Patterson, 1982[91] in Green *et al*., 2021[92]) and in Bridgwater Bay the core moulting period is August – September, with the majority of shelduck present having completed their moult by late September.

4.4.11 Most recent distribution surveys in 2022 and 2023 concluded that the spread of shelduck around high tide remained broadly consistent throughout these survey periods and largely similar to that recorded in previous years, with birds concentrated around Fenning Island, Stert Island and Stert Point ('core roost area'). However, shelduck were more dispersed across the recording area, with an increase in the number of birds utilising the foreshore between the Wall Common fence line and Stert Point (this was also recorded in 2021, post-installation of measures to mitigate disturbance from people/walkers); and it was also evident that there was a lower number of birds using the main channel of the River Parrett, possibly in response to vessel disturbance.

4.4.12 Following the implementation of terrestrial mitigation measures in association with the HPC SMMS, as well as wider disturbance reduction initiatives by Natural England, the effectiveness of these measures has been monitored through both the disturbance monitoring element of the distribution surveys and also through specific mitigation monitoring surveys. Terrestrial mitigation at Wall Common and Stert Point has proven to be very effective and has reduced access to the core roost area in comparison to previous years, where people regularly walked from Wall Common to Stert Point.

4.4.13 A secondary concentration of shelduck was previously recorded to the east of HPC (within 500 m of the Proposed Works Area) during the high tide period, however numbers up to 2018 in this area have generally been far lower in comparison to the numbers around the 'core roosting area'. Further monitoring [in consultation with Natural England] was considered unnecessary at the temporary jetty at the HPC main site because the distribution surveys collected over a five-year (2012 to 2018) period showed that shelduck do not tend to congregate within 1 km of the HPC jetty and therefore were unlikely to be impacted by jetty operations.

4.4.14 Distribution surveys from observation points overlooking the secondary concentration were discontinued after 2018, however population data has been collected for count sector 2 (transect 2), which extends along the coast to HPB. Population survey results from Count Sector 2 are presented in **Table 4.1**.

[91] Patterson, I.J. (1982). The shelduck: a study in behavioural ecology. Cambridge University Press, 1982.
[92] Green, R., Burton, N. & Cook, A. 2021. Migratory movements of British and Irish Common Shelduck *Tadorna tadorna*: a review of ringing data and a pilot tracking study to inform potential interactions with offshore wind farms in the North Sea. *Ringing & Migration,* **34**, 71-83.

Table 4.3 Population survey results [Count Sector 2] (2016 – 2023)

	June (1)	July (1)	July (2)	Aug (1)	Aug (2)	Sep (1)	Sep (2)	Oct (1)
2016	**7**	2	29	28	431	1,243		
2017	**30**	**200**	**40**	**205**	**485**	**89**		
2018	7	**36**	**65**	**34**	**1,370**	**1,957**		
2019	**5**	31	296	52	251	229	770	502
2020	11	1	31	456	392	740	838	619
2021	14	1	0	86	632	1,503	1,548	1,611
2022	51	318	718	1,953	862	554	95	221
2023	57	22	3	5	214	129	621	201

4.4.15 Population counts between June and October illustrate that this secondary aggregation of birds around Hinkley Point generally recorded peak numbers in August, September and October of each year, where these peak counts exceed 1% of the SPA population.

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4.4.16 Wintering bird surveys are conducted at two locations within EDF landholdings, Hinkley Point and Huntspill Island. Bird data pertinent to the Hinkley Point location has been collated in **Appendix B: Bird Survey – Survey Data Summary of Qualifying Interest Species**.

Breeding Bird Surveys and Nesting Gull Population Surveys [Species records and monitoring data]

4.4.17 The breeding population of lesser black-backed gull is a qualifying feature of the Severn Estuary Special Protection Area (SPA), with the citation stating a population of 2,040 pairs in 1993[93]. The breeding population of lesser black-backed gull is listed for future consideration as a qualifying species under Ramsar Criterion 6 for the Severn Estuary Ramsar site/SPA (4,167 occupied nests, Seabird 2000 Census).

4.4.18 During the last full census of breeding seabirds (1998-2002) a total of 74 pairs of lesser black-backed gull were recorded in Somerset, including 27 pairs at HPA and HPB (Mitchell *et al*., 2004[94]). This county total is likely to have increased since, with numbers at Highbridge having risen from 6 pairs (1998-2002) to 131 pairs in 2016 (JNCC, SMP database). Similarly, a total of 46 pairs were estimated for the Hinkley Point Power Station in 2011 (JNCC, SMP database).

[93] Natural England (1993). Severn Estuary Site Citation, EC Directive 79/409 on the Conservation of Wild Birds, Special Protection Area (SPA).
Available online at: http://publications.naturalengland.org.uk/file/6512584593244160 Accessed (06 July 2022).
[94] Mitchell, P.I., Newton, S.F., Radcliffe, N. and Dunn, T.E. (2004). Seabird Populations of Britain and Ireland: Results of the Seabird 2000 Census 1998-2002. T & AD Poyser, London.

4.4.19 The following breeding bird surveys were undertaken at Hinkley Point B Power Station:

- 2019: Breeding bird territory mapping surveys (using methods based on the British Trust for Ornithology's Common Bird Census (CBC)) were carried out at Hinkley Point B in 2019 during which the lesser black-backed gull population was estimated at **20 pairs**. This represents approximately 0.98% of the Severn Estuary SPA, qualifying population.
- 2021: Baseline breeding gull surveys were undertaken following the Vantage Point (VP) methodology, as detailed in Gilbert *et al*. (1998)[95], accounting for the review of methods in Ross *et al*. (2016)[96] and recommended survey timings in Walsh *et al*. (1995)[97], primarily from rooftop vantage points (VPs). The total estimated lesser black-backed gull breeding population for the Hinkley Point B survey area in 2021 is a minimum of **7 pairs**. Approximately 90% of the survey area was visible. This represents approximately 0.34% of the Severn Estuary SPA, qualifying population.
- 2022 & 2023: The total estimated lesser black-backed gull breeding population for the Hinkley Point B survey area in 2022 and 2023 is **6 pairs**. This represents approximately 0.29% of the Severn Estuary SPA, qualifying population.

4.4.20 The overall nesting gull numbers at Hinkley Point Power Station are likely to have declined since 2016 due to the removal of roofing at HPA.

4.4.21 Data from these surveys are presented in **Appendix B: Bird Survey – Survey Data Summary of Qualifying Interest Species**.

4.4.22 Non-lethal deterrents (which have been applied in accordance with a licence from Natural England) are being used on gulls and other potential nesting birds within Hinkley Point B. The main deterrent employed is netting, with a number of buildings having been netted during the 2022 survey visits. Other non-lethal deterrent methods employed at Hinkley Point B included lasers, bioacoustics and anti-bird spikes.

Severn Estuary SPA Functionally Linked Land Study

4.4.23 Natural England commissioned the Severn Estuary SPA project (Link Ecology Ltd, 2021): A study to identify land with proven or possible functional linkages[98] with the Severn Estuary SPA, between Beachley and Hinkley Point. The Natural England Study presents the findings of the sixth Phase of a wider assessment to identify sites of importance to the population of birds found, at least for part of their life cycle, on the Severn Estuary SPA.

4.4.24 A total of 33 species of interest were selected for study within the remit of this work. These were the SPA Qualifying Species, the SPA named Assemblage Species, those listed in the SSSI citations for the Severn Estuary, Upper Severn Estuary and Bridgwater Bay, six additional wader species (avocet, golden plover, ruff, sanderling, green sandpiper and greenshank), whooper swan, little egret and common crane, all species that are part of the non-listed waterfowl assemblage.

[95] Gilbert, G., Gibbons, D.W. & Evans, J. (1998). Bird monitoring methods: A manual of techniques for key UK species. RSPB.
[96] Ross, K.E., Burton, N.H.K., Balmer, D.E., Humphreys, E.M., Austin, G.E., Goddard, B., Schindler-Dite, H., Rehfisch, M.M.
(2016). Urban breeding gull surveys: a review of methods and options for survey design. BTO Research Report No. 680.
[97] Walsh, P.M., Halley, D. J., Harris, M. P., del Nevo, A., Sim, I. M. W., & Tasker, M. (1995). Seabird monitoring handbook for Britain and Ireland. Peterborough, UK.
[98] The term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a European site might fulfil in terms of supporting the populations for which the site was designated or classified. Such an area of land or sea is therefore "linked" to the site in question because it provides a (potentially important) role in maintaining or restoring a protected population at favourable conservation status (Chapman and Tyldesley, 2016)

4.4.25 An assessment of data collated within Area 8 (Chilton Trinity to Hinkley Point) identified two sites considered to provide functional linkage to the SPA:

- Stockland Marshes (FLL 40) has been identified as functionally linked of 'high' importance for a number of waterbird species, most notably shoveler, gadwall, black-tailed godwit, snipe, green sandpiper and pintail. Stockland Marshes is situated approximately 2.8km to the south east of the Proposed Works Area.
- Fields South of Combwich (FLL 39) have also been identified as functionally linked for lapwing. However, these fields are currently defined as likely to be of 'low' importance or 'data deficient', given that the only data available was from a single winter's survey, over 10 years ago. Fields South of Combwich are situated approximately 5.8km to the south east of the Proposed Works Area.

4.4.26 The Wildfowl & Wetlands Trusts (WWT's) Steart Marshes (approximately 4km to the east of the Proposed Works) has been previously identified as a significant functionally-linked High Tide Roost.

4.5 Terrestrial and Freshwater Ecology Baseline

Data Sources

4.5.1 The principal terrestrial ecology and ornithology data sources used to inform the baseline characterisation for the HRA process comprise the following:

- Information regarding European Sites was acquired using MAGIC Defra's map[17]
- Hinkley Point B Decommissioning EIA — Baseline Report: Desk Study (Terrestrial Ecology) (2020)[99]
- Hinkley Point B Decommissioning EIA — Baseline Report: Otter and water vole (2021)[100]
- Hinkley Point B Decommissioning EIA — Baseline Report: Bats (2021)[101]
- Hinkley Point B Decommissioning EIA – Baseline Verification Report (2023)[102]
- Hinkley Point B Land Management Annual Review – 2019, 2020 and 2021.
- Hinkley Point B Integrated Land Management Plan[103] 2014 – 2018.
- Hinkley Point C Annual Ecological Monitoring Report: 2017[62], 2018[63], 2019[64], 2020[65], 2021[66];
- HPC Bat Habitat Connectivity Along Green Lane. Delivery Advice Note[104].

[99] Wood (2021a). Hinkley Point B Decommissioning EIA – Baseline Report: Desk Study (Terrestrial Ecology)
[100] Wood (2021b). Hinkley Point B Decommissioning EIA – Baseline Report: Otter and water vole
[101] Wood (2021c). Hinkley Point B Decommissioning EIA – Baseline Report: Bats
[102] WSP (2023), Hinkley Point B Decommissioning EIA – Baseline Verification Report
[103] EDF Energy Nuclear Generation Ltd (2014 to 2018). Hinkley Point B Integrated Land Management Plan
[104] NNB GenCo (HPC) Ltd. (2019). Bat Habitat Connectivity Along Green Lane. Mott MacDonald.

Bat Records

Desk Study Records

4.5.2 A desk-based study was undertaken to collate and review existing information on ecological features that are known to occur, or have previously been recorded, on land within and surrounding the Study Area.

4.5.3 Barbastelle bat are a primary reason for the site selection of Exmoor and Quantock Oakwoods SAC — a maternity colony of barbastelles utilises a range of tree roosts in this area of predominantly oak woodland. Bechstein's bat are a qualifying feature of the site, but not a primary reason for site selection. Somerset Environmental Records Centre hold records[105]. Of both Barbastelle and Bechstein's bat within 5km of the site, but not within the Site boundary.

4.5.4 The HPB Land Management Annual Reviews (LMAR) and Integrated Land Management Plan (ILMP) also include details of species (including bats) recorded within the Study Area. Hinkley Point C Annual Ecological Monitoring Report 2018[106] includes recent bat monitoring data pertaining to the adjacent HPC station; and Hinkley Point B Bat Box Survey (2012-2019) details the results of monitoring of bat boxes within Hinkley LWS. No records of Barbastelle or Bechstein's bat were returned.

4.5.5 In 2012, to better understand their use of the wider landscape around HPC, Greena Ecology Consultancy were commissioned by the Applicant to undertake radio-tracking studies of barbastelle bats. Eleven female bats were caught and radio-tracked in late summer 2012. Based on an analysis of their results, Greena Ecology identified important foraging areas for barbastelle bats.

- The 'triangle' of land limited by the villages of Kilve, Holford and Stringston was found to be the foraging area of the greatest importance during the study, followed by areas further north and north-east.
- Three bats out of the 11 bats sampled used the HPC site for foraging or commuting.
- The most well used areas within the HPC site were Green Lane and Benhole Lane and land south of HPB.

Bat Surveys

4.5.6 During HPC Baseline Bat Surveys, low levels of barbastelle bat activity were recorded within the Study Area (<0.1% (25) of bats recorded by static detector), mainly associated with Pixie's Pond in spring/May (80% of Barbastelle recordings, including a peak of 12). This species was also occasionally recorded (one or two recordings) at Pixie's Pond in autumn (October) and in the habitats directly to the east of Pixie's Mound in spring (May) and early summer (June), as well as near ditches within the south-east limit of the Study Area (<200m from the Works Area).

4.5.7 During HPC Baseline Bat Surveys, barbastelle bats were recorded during activity transects and automated surveys within and around the HPC site boundary, the nearest record being approximately 800m to the south west of the HPB decommissioning works area.

[105] Bat records were also requested from Somerset Bat Group (SBG) - no additional records obtained.
[106] Mott Macdonald (2018) Hinkley Point C Annual Ecological Monitoring Report 2018

4.5.8 The Core Sustenance Zone (CSZ) for this species is at least 6 km (Collins, 2016), whilst the SAC is 6.8 km from the Study Area. It is feasible therefore that barbastelles from the SAC could visit the Study Area.

4.5.9 *Myotis* species were recorded but could not be identified to species level. No confirmed observations of Bechstein's bats have been recorded during any bat surveys undertaken.

Otter Records

Desk Study Records

4.5.10 There are records of otter activity within 3 km of the Site. Somerset Environmental Records Centre (SERC) hold 12 records of otter within 3 km of the Site, dated between 2015 and 2017, the closest of which is approximately 20m south east of the Site boundary. The HPB LMARs and ILMP also include details of otter records within the Study Area.

4.5.11 Somerset Wildlife Trust (Ben Bryant 2019 pers. Comm; Wood, 2021b)) reported otter spraints observed on approximately 10 separate occasions over the previous four years, usually around the tilting weir on Cole Lane (National Grid Reference ST 21635 45873), directly outside the eastern Site boundary, with the last of these observations approximately one year ago (2018).

4.5.12 Otter is a qualifying feature (not a primary reason for site selection) of The Exmoor & Quantock Oakwoods SAC, located 6.7km south west of the Site. Huntspill River National Nature Reserve (NNR), located 7.7km east of the Site, is an artificial river created in 1940 that holds a large stock of coarse fish and supports otters.

Otter Surveys

4.5.13 Otter surveys were undertaken in 2019 within a study area of 250m within the boundary of the Site.

4.5.14 No evidence of otter activity or resting sites were recorded within the Study Area. The majority of waterbodies within the Study Area are of negligible/low suitability for otters, although most of the ditches are suitable for use by commuting otters. The foreshore provides some suitable habitat for commuting and foraging otters. There is also some limited potential for the creation of otter couches/resting sites amongst the gaps between the boulders that form part of the sea defences.

4.5.15 It is likely that otters will commute through and/or forage within the Study Area intermittently. The intermittent, low level of otter activity within the Study Area is likely to be attributable to the ditch management regime and limited suitable locations/habitats for holt creation.

4.6 Potential Impact Pathways

4.6.1 This step identifies whether impacts of the Proposed Works described in Step 2 (see **Chapter 2**) have the potential to result in LSE on the qualifying features of these European Sites.

4.6.2 The main mechanisms by which the Proposed Works could affect European Sites are through either direct or indirect impact pathways and associated potential effects are presented in **Table 4.4**.

Zone of Influence

4.6.3 The spatial scope of any HRA should be based on the likely environmental outcomes of the scheme, its ZoI and the interest features of the European Sites that may be affected and their potential vulnerabilities. Many European Site interest features (particularly animal species) may use or be reliant on non-designated habitats outside of a European Site during their life-cycle. Developments some way from a European Site can therefore have an effect if its interest features are reliant on the habitats being affected by the development.

4.6.4 Where applicable, the threats, pressures and activities listed within the Natura 2000 Standard Data forms have also been considered, as well as the project and species-specific ZoI (see **Section 4.1**).

4.6.5 Drawing on the effects which have the potential to arise as a result of the Proposed Works, specific ZoI have been established. For each potential effect, the 'worst-case scenario' has been considered, ensuring that zones capture all relevant sites for which a potential interaction may exist. These are also presented in **Table 4.4.**

4.6.6 Where sensitivities and ZoI overlap, this denotes the presence of a potential pathway of effect, which shall be subsequently described and assessed further within this Screening Report (see **Chapter 5**).

Table 4.4 Potential impact pathways, effects and Proposed Works ZoI, across all phases of the Proposed Works

Activity	Potential effect pathway	Associated effects considered within this assessment	Proposed Works Zone of Influence
Works to remove existing marine infrastructure undertaken during the Preparations for Quiescence phase	Disturbance/degradation/loss of marine habitats. Increased levels of suspended sediment as a result of disturbance to the seabed. Increased underwater noise levels. Changes in water quality due to disturbance of the seabed. Introduction/spread of invasive and non -native species (INNS). Increased levels of noise, vibration, light in the intertidal and terrestrial environment.	Adverse effects on marine species due to physical habitat loss/disturbance. Adverse effects on marine habitats and species through smothering. Disturbance to noise-sensitive marine species/indirect effects due to changes in prey availability. Adverse effects on marine species due to changes in marine water quality. Adverse effects on ornithology receptors due to habitat change. Disturbance to birds and loss of or alteration to supporting habitat. Out-competition/physical harm to native ecological receptors. Indirect effects on prey species.	The ZoI for direct effects on benthic habitats, i.e. focused on habitat loss, direct disturbance and degradation as a result of the Proposed Works, has been taken to be the immediate footprint of the Proposed Works, and a buffer of 50m, and 25m around the outfall. With minimal seabed disturbance predicted during the Proposed Works, this is considered sufficient to capture temporary disturbance during the Proposed Works, as well as permanent changes, following physical removal of marine infrastructure. Conventional methods such as long-reach breakers from anchored pontoons are anticipated to be used to demolish the Intake Structure. Based on the hearing capacity of noise-receptive fish species a ZoI of 10 km from the source of any potential noise-generation (i.e. the seaward extent of the Works Area) has been established, based on predicted noise levels from the Proposed Works. Detailed modelling of airborne noise, or distribution of light arising from demolition works associated with the Proposed Works has not been undertaken as part of this assessment process. However, based on previous experience of comparable projects and professional judgement, a distance of 500 m has been applied as a ZoI for light and visual disturbance associated with the Proposed Works. This may include activities such as evening/night-time/poor

Activity	Potential effect pathway	Associated effects considered within this assessment	Proposed Works Zone of Influence
			weather working on the Site or within the coastal zone. It is considered that this ZoI will also encompass the spatial extent of potential impacts of airborne noise from demolition activities within the marine and coastal environment. Works in the marine environment have the potential to disturb marine sediments, resulting in a general increase in levels of total suspended sediment (TSS). Depending on the composition of the seabed (i.e. the particle size distribution and cohesiveness), this may also result in materials entering the water column. Applying a precautionary approach, the geographic extent of any increase in suspended sediment concentrations due to the disturbance of the seabed is not expected to extend more than 10 km from the Proposed Works, with the majority of particles (~90%) tending to be deposited within 1 km of works[107]. On this basis, a ZoI for potential changes in key water quality parameters (including TSS, salinity, dissolved oxygen, and levels of contaminants/nutrients) of 10 km has been established. Whilst it is acknowledged that this is at a smaller scale than the standard tidal excursion of the Severn Estuary (~20km), it is considered appropriate due to the natural levels of suspended sediment present in the Estuary, and the anticipated speed at which any small increases will be subsumed into these background levels.

[107] BERR (2008). Review of Cabling Techniques and Environmental Effects applicable to the Offshore Wind farm Industry. Technical Report, Department for Business Enterprise and Regulatory Reform (BERR), in association with Defra, 164pp

Activity	Potential effect pathway	Associated effects considered within this assessment	Proposed Works Zone of Influence
Land-based activities associated with the Proposed Works across all phases	Release of contaminated run-off into the marine environment. Changes in water quality (including increase levels of suspended sediment). Introduction/spread of invasive and non-native species (INNS). Increased levels of noise, vibration, light in the intertidal and terrestrial environment. Direct habitat loss	Adverse effects on marine habitats and species through smothering. Adverse effects on marine species due to changes in marine water quality. Out-competition/physical harm to native ecological receptors. Disturbance to birds and loss of or alteration to supporting habitat.	Detailed modelling of airborne noise, or distribution of light arising from demolition works associated with the Proposed Works has not been undertaken as part of this assessment process. However, based on previous experience of comparable projects and professional judgement, a distance of 500 m has been applied as a ZoI for light and visual disturbance associated with the Proposed Works. This may include activities which includes working at low light (e.g. evening in winter months) or poor weather or within the coastal zone. It is considered that this ZoI will also encompass the spatial extent of potential impacts of airborne noise from demolition activities within the marine and coastal environment. Built structures will also be lost as a result of permanent or temporary works. Land-take is considered to be confined to the physical footprint of the activity concerned.

4.7 In-combination effects

4.7.1 As part of the HRA screening process, information on other projects and plans that have been subject to a HRA in relation to the European designated sites being assessed is required to allow an assessment of any 'in-combination' effects of the proposed development (in this case the Proposed Works) with other schemes that may affect the European Sites.

4.7.2 The screening assessment provided within this HRA takes into account the CJEU ruling on ‘People over Wind’. It has also adopted a strong precautionary principle; if a pathway of effect is established between the Proposed Works and a European Site, then that site is taken through to appropriate assessment. Only those qualifying features and European Sites where it can be demonstrated that there is no likelihood of an LSE occurring have been screened out.

4.7.3 The types of projects and plans included within the assessment of in-combination effects are:

- projects that are under installation;
- permitted application(s) not yet implemented;
- submitted application(s) not yet determined; and
- all refusals subject to appeal procedures not yet determined.

4.7.4 A list of sites included within the in-combination assessment is presented within **Appendix C: Projects and plans considered within the in-combination assessment**, along with justification as to whether they have the potential to result in LSE when considered together with spatial and temporal elements of the Proposed Works

4.7.5 The sites that are to be included within the in-combination assessment are then considered with regard to the identified potential effects, designated sites, and qualifying features.

5. HRA Screening Step 4: Assessing the presence of Likely Significance Effects on European Sites

5.1 Introduction

5.1.1 This step identifies whether the Proposed Works described in Step 2 (**Chapter 3**) and potential effects described in Step 3 (**Chapter 4**) have the potential to result in LSE on the qualifying features of those European Sites within the Study Area and relevant ZoIs. Where there is no overlap between the relevant ZoI and species study areas, the qualifying feature has not been carried forward into the Screening assessment. This includes primarily habitats and non-mobile features.

5.1.2 Each European Site and their relevant qualifying features, and screening rationale are detailed in **Table 5.1.** Sites considered within this Screening exercise are presented in **Figure 5.1:SACs considered within HRA Screening** and **Figure 5.2: SPAs and Ramsar Sites considered within HRA Screening**.

Table 5.1 European Sites, relevant qualifying features, and potential for LSE

Site	Qualifying Features
	
	w = wintering;
	p = passage;
	b = breeding
		Environmental change and potential effect	ZoI interactions	Screening Rationale	Potential for LSE

Severn Estuary SPA/Ramsar	Bewick's swan (w)	Direct disturbance/potential displacement effects through airborne noise, light and visual disturbance	SPA/Ramsar falls within a 500m ZoI from the Proposed Works	LSE are screened out for these species based on no records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
	Gadwall (w)				**NO**
	Greater white-fronted goose (w)				**NO**
	Dunlin (w)			LSE are screened out for this species based on the infrequency of habitat utilisation within a ZoI of the Proposed Works (including consideration of FLL). Low numbers (peak count of 4 and 56) were recorded during 2016/17 and peak count of 4 during HPB intertidal surveys in 2018/19; and no records for the species during 2017/18, 2018/19, or 2019/20 surveys. A single peak (and total) count of 420 birds was recorded across all count sectors during HPC intertidal surveys in 2019/20. Three birds were also recorded during EDF wintering bird surveys in front of the station during 2019/20; none were recorded during surveys in 2018/19. With only limited observations of this species over the survey period this indicates a low frequency of use within the Survey Area. Given the temporary nature of the Proposed Works, any low-level utilisation in this area would not result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	**NO**
	Shelduck (w)			Distribution surveys have showed that the spread of shelduck around high tide have remained broadly	**NO**

consistent across survey years (2016 – 2023), with birds primarily concentrated around Fenning Island, Stert Island and Stert Point (the 'core roost areas'). Disturbance surveys have identified that the core roost area continues to be the most sensitive area for moulting shelduck (when most birds that roost there are flightless). In light of the distance between the Proposed Works Area and these core roost areas (~5.5km at the nearest point), no impact pathways are identified.

However, monitoring has also identified a smaller but still significant secondary concentration off Hinkley Point where counts have exceeded the 1% SPA threshold in grid squares within 500m of the Proposed Works Area (between 2016 – 2019; no focal disturbance/distribution surveys were undertaken after this point), in addition to population data recorded between 2016 and 2023. Over the survey periods referenced, recorded peak counts were attributed to birds aggregating on the water over two hours either side of the high tide period. These rafting birds did not tend to remain in the same areas for long periods (i.e. they do not use energy to remain in a stationary position against the tide) and were not recorded foraging. Early monitoring surveys documented within the HPC Report to Inform Habitats Regulations Assessment (RIHRA) in July and August 2011 (the core moult period), demonstrated that the majority of shelduck activity recorded was generally 500-800 m from the mean low water mark (MLW). The majority of flocks numbered less than 100 individuals. It was also noted that shelduck could swim against the tide for considerable distances (i.e. up to 500 m), which suggests that moulting (flightless) shelduck retain the ability to position themselves within the tidal waters of the estuary.

The key activities during the decommissioning works that could cause disturbance to shelduck feeding or roosting

on the intertidal habitat/open water are the demolition of the Intake Structure, installation of the new AEDL and Sewage Treatment pipelines, and the associated movement (and operation) of machinery and workforce.

It is relevant to note that the Proposed Works in the marine environment would be undertaken outside the sensitive moulting period (July – September), therefore avoiding the period when aggregations of 'flightless' rafting birds have been recorded. It is also of relevance that birds on open water are less likely to be disturbed by activities on land than they would be from water-based activities, particularly in this instance where large expanses of open water are available.

Whilst the intake works would be undertaken in open water via pontoon it is expected to require minimal vessel movements to facilitate the works. The Intake Structure is located >500m to the west of grid squares where previous monitoring has reported presence of Shelduck and thus a pathway for physical disturbance would be negligible.

Collectively, the low level of disturbance effects (in light of the fact that most birds have been recorded 500 – 800m from MLW) associated with onshore works and demolition of the Intake Structure is likely to be influenced by the presence locally of alternative roosting areas within the existing home ranges. Where alternative areas are limited, the significance of disturbance effects is likely to be increased. However, given the extensive area of open water utilised by roosting birds at high tide, this is unlikely to be the case.

If rafting shelduck were present within 500m of the onshore decommissioning works (and temporarily disturbed by the activities), they would be able to move away from the areas of disturbance with little energetic

		expenditure. Moreover, an extensive area of open water would be available which birds displaced from any area of disturbance could relocate to. Given that birds would not have to move very far to avoid further disturbance it is unlikely that their energy expenditure would be of sufficient significance to have a detrimental effect on their longer-term survival. Given the temporary nature of the Proposed Works, the avoidance of potentially disturbing works during sensitive July to September period and during high tide periods, and with the ability for dispersal to alternative roosting locations on open water, any low-level disturbance effects would not result in any sustained loss of resource or contribute to significant energy expenditure for this species and therefore there is no potential for LSE at this European Site.	
	Redshank (w)	LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
	Waterbird assemblage: Eurasian wigeon (w), Teal (w), Mallard (w), Shoveler (w), Grey plover (w), Lapwing (w), Whimbrel (p), Curlew (w), Spotted redshank (w), Ringed plover (w/p), Herring gull (w), Knot (w), Black-headed gull (w), Black-tailed godwit (w), Pochard (w),	LSE are screened out for waterbird assemblage species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage. Given the temporary nature of the Proposed Works, any low-level utilisation in this area is unlikely to result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	**NO**

	Turnstone (w), Tufted duck (w), Oystercatcher (w), Dark-bellied brent goose (w), Light-bellied brent goose (w), Little egret (w)				
Severn Estuary Ramsar	Lesser black-backed gull (b)	Direct habitat loss	SPA/Ramsar falls within a 500m ZoI from the Proposed Works; and nesting birds recorded within the Proposed Works Area	Buildings within the Proposed Works Areas have been identified as supporting breeding lesser black backed gull. 20 pairs were recorded in 2019 (0.98% of the SPA population), 7 pairs were recorded in 2021 (0.34% of the SPA population); and 6 pairs (0.29% of the SPA population) were recorded in 2022 and 2023. The overall numbers at Hinkley Point Power Station are likely to have declined since 2016 due to the removal of roofing at HPA. In addition to which, a variety of deterrents are deployed within the Proposed Works Area including netting and other non-lethal deterrent methods including lasers, bioacoustics and anti-bird spikes. On this basis, given the lower numbers of nesting pairs and the programme of deterrence in place within the Site, LSE are screened out for lesser black-backed gull at this European Site.	**NO**
	Ringed plover	Direct disturbance/potential displacement effects through airborne noise, light and visual disturbance	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area	LSE are screened out for this species based on the infrequency of habitat utilisation within a ZoI of the Proposed Works. Low numbers (Max mean peak count of between 1 and 14) were recorded during intertidal surveys between 2016 – 2021. Given the low frequency of use for this species and given the temporary nature of the Proposed Works, any low-level utilisation in this area is unlikely to result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	**NO**

Teal			LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
Pintail (w)			Pintail numbers have fluctuated over the past 5 years, with generally low numbers recorded annually during intertidal surveys: HPC Intertidal surveys 2017/18 - peak count 12; HPC Intertidal surveys 2018/2019 - peak count 44, HPC Intertidal surveys 2019/2020 – peak count (all sectors) 60; and HPC Intertidal surveys 2020/2021 - peak count (all sectors) – 96. Two instances of larger peak counts were recorded during HPC Intertidal surveys 2016/2017 - Count sector 5 peak count 210; and HPB Intertidal surveys 2019/20 - 270 birds in November 2019 (recorded within Sector 2); however, records were of single observations rather than regular or sustained periods of utilisation. Over the period, numbers of birds utilising the Study Areas have been found to fluctuate during different tidal phases and across the survey period. Given the temporary nature of the Proposed Works, any low-level utilisation in this area is unlikely to result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	**NO**
Salmon	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality.	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area.	The Severn Estuary is a key migration route for salmon, however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational	**NO**

	Direct effects through disturbance / potential habitat degradation.		vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Sea trout	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area.	The Severn Estuary is a key migration route for sea trout, however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated.	**NO**

				As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area.	The Severn Estuary is a key migration route for sea lamprey, however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	**NO**
	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise.	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area.	The Severn Estuary is a key migration route for river lamprey, however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha.	**NO**

		Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.		Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation,	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area.	The Severn Estuary is a key migration route for allis shad and also contains feeding grounds for allis shad, particularly mysid shrimps in the salt wedge. However, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape.	**NO**

	including feeding grounds.		Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Twaite shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation, including feeding grounds.	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area.	The Severn Estuary is a key migration route for twaite shad and also contains feeding grounds for Twaite shad, particularly mysid shrimps in the salt wedge. However, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the	**NO**

				proposed activities will not result in any further habitat loss or disturbance.	
	European eel	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.		The Severn Estuary is a key migration route for European eel, however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 16,942 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	**NO**
Somerset Levels and Moors SPA	Bewick's swan	Direct disturbance/potential displacement effects through airborne noise, light and visual disturbance	SPA/Ramsar qualifying features potentially utilise habitats within a 500m ZoI from the Proposed Works Area	LSE are screened out for this species based on no records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
	Golden plover			LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive intertidal survey coverage. The nearest identified FLL where this species	**NO**

				has been recorded is Stockland Marshes (approximately 2.8km to the southeast of the Proposed Works area. Given the temporary nature of the Proposed Works, any low-level utilisation in this area is unlikely to result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	
Somerset Levels and Moors SPA/Ramsar	Teal	Direct disturbance/potential displacement effects through airborne noise, light and visual disturbance	SPA/Ramsar qualifying features potentially utilise habitats within a 500m ZoI from the Proposed Works Area	LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
	Lapwing			LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive intertidal survey coverage. The nearest identified FLL where this species has been recorded is Stockland Marshes (approximately 2.8km to the southeast of the Proposed Works area. Given the temporary nature of the Proposed Works, any low-level utilisation in this area is unlikely to result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	**NO**
Somerset Levels and Moors Ramsar	Wigeon	Direct disturbance/potential displacement effects through airborne noise, light and visual disturbance	SPA/Ramsar falls within a 500m ZoI from the Proposed Works Area	LSE are screened out for wigeon based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage. Given the temporary nature of the Proposed Works, any low-level utilisation in this area is unlikely to result in any sustained loss of resource for these species and therefore there is no potential for LSE at this European Site.	**NO**
	Mute swan			LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
	Pintail			See Severn Estuary Ramsar.	**NO**

	Shoveler			LSE are screened out for this species based on the limited records within a ZoI of the Proposed Works or wider survey areas following extensive survey coverage.	**NO**
Exmoor and Quantock Oakwoods SAC	Barbastelle bat	Direct disturbance/potential displacement effects through airborne noise, light and visual disturbance	SAC lies approximately 6.9km9 to the south west of the Proposed Works Area and outside the likely 6km Core Sustenance Zone (CSZ) of this species	Low levels of barbastelle bat activity were recorded within the vicinity of the Proposed Works Area, mainly associated with Pixie's Pond in spring/May and also occasionally recorded (one or two recordings) at the same location in autumn (October) and in the habitats directly to the east of Pixie's Mound (to the south of the Proposed Works Area)in spring (May) and early summer (June), as well as near ditches within the south-east limit of the Study Area. These locations present a contrast to the low habitat suitability of the Proposed Works Area which is highly lit and primarily hardstanding and built form. A radio-tracking study undertaken by Greena Ecology in 2012 identified Important Foraging Areas for barbastelle extending out from the SAC to the south eastern corner of the Proposed Works Area, which were identified as a foraging area for one bat (greater importance was applied to important foraging areas for two or three bats). The Proposed Works Area therefore appears to be on the edge of the CSZ range of the barbastelle roosts located within Exmoor and Quantock Oakwoods SAC. Given the low levels of barbastelle bat activity (of individual bats) recorded within the Study Area and the temporary nature of the proposed works, there is no potential for LSE at this European Site.	**NO**
	Bechstein's bat		SAC lies approximately 6.9km to the south west of the Proposed Works Area and outside	No Bechstein's bat were recorded during surveys and Myotis species were recorded but could not be identified to species level. No confirmed records of Bechstein's bats were made during any bat surveys undertaken. Given the Study Area is outside this species ZoI (this species is known to have a limited range), this species is	**NO**

			the 1km CSZ of this species	unlikely to be present and LSEs have been screened out.	
	Otter		SAC lies approximately 6.9km to the south west of the Proposed Works Area and within potential foraging range (32km) of this species	There is potential connectivity between the SAC and the Study Area given the potential ranges (up to 32km), however no evidence of otters has been recorded within the Study Area, and occasional desk study records from the wider area indicated that the Study Area and immediate vicinity is unlikely to provide more than sporadic foraging opportunities for animals ranging beyond the SAC. On this basis, there is no potential for LSE at this European Site.	**NO**
Severn Estuary/Môr Hafren SAC	Estuaries	Direct effects through disturbance / degradation / habitat loss. Changes in water quality due to disturbance of the seabed. Increased levels of suspended sediment as a result of disturbance to the seabed. Introduction / spread of INNS.	The Works Area lies within the SAC, therefore there is potential for overlap with the Proposed Works.	Whilst there is the potential for interaction between the Proposed Works and the designated feature, due to the very limited physical scale of works in the marine environment, and the high ambient levels of suspended sediment in the Severn Estuary, any seabed disturbance is not anticipated to result in an increased sediment load. Furthermore, the sediment present in the vicinity of the Proposed Works has arisen from within the Estuary system, and therefore shares the same composition; on this basis, changes in water quality are not predicted. The introduction / spread of INNS will be controlled via the incorporation of embedded mitigation measures, and adherence to standard procedures such as the IMO's Ballast Water Management Convention[108]. Notably, there are extensive areas of the estuaries feature within the SAC, when compared to the small area predicted to be affected by the Proposed Works. Therefore, there is no potential for LSE at this European Site.	**NO**
Severn Estuary/Môr Hafren SAC	Mudflats and sandflats not	Direct effects through disturbance	The Works Area lies within the SAC, therefore	Whilst there is potential for interaction between the Proposed Works and the designated feature, due to the limited scale of works in the marine environment, and the	NO

[108] International Maritime Organisation (2004) Ballast Water Management (BWM) Convention and Guidelines. Available online at: https://www.imo.org/en/OurWork/Environment/Pages/BWMConventionandGuidelines.aspx. (Accessed November 2022).

	covered by seawater at low tide	/ degradation / habitat loss. Changes in water quality due to disturbance of the seabed. Increased levels of suspended sediment as a result of disturbance to the seabed. Introduction / spread of INNS.	there is potential for overlap with the Proposed Works.	high levels of suspended sediment in the Severn Estuary, any seabed disturbance is not anticipated to result in an increased sediment load. Further, the sediment in the vicinity of the Proposed Works has arisen from within the Estuary, and therefore shares the same composition; on that basis, changes in water quality are not predicted. The introduction / spread of INNS will be controlled via the incorporation of embedded mitigation measures, and adherence to standard procedures such as the IMO's Ballast Water Management Convention. In addition, there is extensive areas of the estuaries feature within the SAC, compared to the small area predicted to be affected by the Proposed Works. Therefore, there is no potential for LSE at this European Site.	
Severn Estuary/Môr Hafren SAC	Sandbanks which are slightly covered by sea water all the time	Direct effects through disturbance / degradation / habitat loss. Changes in water quality due to disturbance of the seabed. Increased levels of suspended sediment as a result of disturbance to the seabed. Introduction / spread of INNS.	The Works Area lies within the SAC, therefore there is potential for overlap with the Proposed Works.	Whilst there is potential for interaction between the Proposed Works and the designated feature, due to the limited scale of works in the marine environment, and the high levels of suspended sediment in the Severn Estuary, any seabed disturbance is not anticipated to result in an increased sediment load. Further, the sediment in the vicinity of the Proposed Works has arisen from within the Estuary, and therefore shares the same composition; on that basis, changes in water quality are not predicted. The introduction / spread of INNS will be controlled via the incorporation of embedded mitigation measures, and adherence to standard procedures such as the IMO's Ballast Water Management Convention. In addition, there is extensive areas of the estuaries feature within the SAC, compared to the small area predicted to be affected by the Proposed Works. Therefore, there is no potential for LSE at this European Site.	NO

Severn Estuary/Môr Hafren SAC	Reefs	Direct effects through disturbance / degradation / habitat loss. Changes in water quality due to disturbance of the seabed. Increased levels of suspended sediment as a result of disturbance to the seabed. Introduction / spread of INNS.	The Works Area lies within the SAC, therefore there is potential for overlap with the Proposed Works.	Whilst there is potential for interaction between the Proposed Works and the designated feature, due to the limited scale of works in the marine environment, and the high levels of suspended sediment in the Severn Estuary, any seabed disturbance is not anticipated to result in an increased sediment load. Further, the sediment in the vicinity of the Proposed Works has arisen from within the Estuary, and therefore shares the same composition; on that basis, changes in water quality are not predicted. The introduction / spread of INNS will be controlled via the incorporation of embedded mitigation measures, and adherence to standard procedures such as the IMO's Ballast Water Management Convention. Therefore, there is no potential for LSE at this European Site.	NO
Severn Estuary/Môr Hafren SAC/Ramsar	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The Works Area lies within the SAC, therefore there is potential for movements of this species to overlap with the Proposed Works.	The Severn Estuary is a key migration route for sea lamprey; however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 73,714.11 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities	NO

				will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Severn Estuary/Môr Hafren SAC/Ramsar	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The Works Area lies within the SAC, therefore there is potential for movements of this species to overlap with the Proposed Works.	The Severn Estuary is a key migration route for river lamprey; ; however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 73,714.11 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO

Severn Estuary/Môr Hafren SAC/Ramsar	Twaite shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The Works Area lies within the SAC, therefore there is potential for movements of this species to overlap with the Proposed Works.	The Severn Estuary is a key migration route for twaite shad; however, there is no potential for LSE at this European Site, based on the following: The small scale and temporary nature of the Proposed Works within the context of a site spanning 73,714.11 ha. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
River Usk / Afon Wsyg SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish	There is no potential for LSE at this European Site for sea lamprey based on the following; The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration.	NO

		ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	with large ranges have potential to transverse the proposed ZoI.	The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Usk / Afon Wsyg SAC	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE at this European Site for river lamprey based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels.	NO

				Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Usk / Afon Wsyg SAC	Twaite shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for twaite shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
River Usk / Afon Wsyg SAC	Atlantic salmon	Direct effects such as disturbance	The SAC is located	There is no potential for LSE at this European Site for Atlantic salmon based on the following:	NO

		/displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	The small scale and temporary nature of the Proposed Works within the context of the extremely large range of this species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Usk / Afon Wsyg SAC	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to	There is no potential for LSE at this European Site for Allis shad based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment	NO

		Direct effects through disturbance / potential habitat degradation.	transverse the proposed ZoI.	(e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Wye / Afon Gwy SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated.	NO

				As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Wye / Afon Gwy SAC	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE at this European Site for river lamprey based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
River Wye / Afon Gwy SAC	Twaite shad	Direct effects such as disturbance /displacement resulting from	The SAC is located approximately 40km by land,	There is no potential for LSE for twaite shad at this European Site based on the following:	NO

		propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Wye / Afon Gwy SAC	Salmon	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to	There is no potential for LSE for salmon at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational	NO

		Direct effects through disturbance / potential habitat degradation.	transverse the proposed ZoI.	vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Wye / Afon Gwy SAC	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 40km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for allis shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated.	NO

				As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
River Axe SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 45kmby land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
Bristol Channel Approaches / Dynesfeydd Môr Hafren SAC	Harbour porpoise	Direct disturbance through increased underwater noise levels.	The SAC lies approximately 90km from the Works Area, and within the	LSE are screened out for harbour porpoise at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent	NO

		Indirect effects on prey species.	relevant range for porpoise, therefore there is potential for interaction between the species and the Proposed Works.	observations of harbour porpoise during survey works at the Site (with none recorded during marine and coastal surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	
River Avon SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 102 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO

River Avon SAC	Salmon	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 102 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for salmon at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
Lundy SAC	Grey seal	Direct disturbance through increased underwater noise levels. Indirect effects on prey species.	The SAC lies approximately 105km from the Works Area, and within the foraging range for grey seal, therefore there is potential for interaction	LSE are screened out for grey seal at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent observations of marine mammals in the waters offshore of Hinkley Point (with none recorded during marine and coastal surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small	NO

			between the species and the Proposed Works.	scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	
Pembrokeshire Marine / Sir Benfro Forol SAC	Grey seal	Direct disturbance through increased underwater noise levels. Indirect effects on prey species	The SAC lies approximately 121km from the Works Area, and within the foraging range for grey seal, therefore there is potential for interaction between the species and the Proposed Works.	LSE are screened out for grey seal at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent observations of marine mammals in the waters offshore of Hinkley Point (with none recorded during marine and coastal surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	NO
Pembrokeshire Marine / Sir Benfro Forol SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 121 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels.	NO.

				Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Pembrokeshire Marine / Sir Benfro Forol SAC	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 121 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for river lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO

Pembrokeshire Marine / Sir Benfro Forol SAC	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 121 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for allis shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
Pembrokeshire Marine / Sir Benfro Forol SAC	Twaite shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to	The SAC is located approximately 121 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish	There is no potential for LSE for twaite shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration.	NO

		ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	with large ranges have potential to transverse the proposed ZoI.	The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Cardigan Bay / Bae Ceredigion SAC	Bottlenose dolphin	Direct disturbance through increased underwater noise levels. Indirect effects on prey species.	The SAC lies approximately 138km from the Works Area, and within the relevant ranger for bottlenose dolphin, therefore there is potential for interaction between the species and the Proposed Works.	LSE are screened out for bottlenose dolphin at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent observations of marine mammals in the waters offshore of Hinkley Point (with none recorded during marine and coastal surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	NO
Cardigan Bay / Bae Ceredigion SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise.	The SAC is located approximately 138 km by land, and much further by sea, from the	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use	NO

		Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Cardigan Bay / Bae Ceredigion SAC	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 138 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for river lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape.	NO

				Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Cardigan Bay / Bae Ceredigion SAC	Grey seal	Direct disturbance through increased underwater noise levels. Indirect effects on prey species.	The SAC lies approximately 138km from the Works Area, and within the foraging range for grey seal, therefore there is potential for interaction between the species and the Proposed Works.	LSE are screened out for grey seal at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent observations of marine mammals in the waters offshore of Hinkley Point (with none recorded during marine and coastal surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	NO
Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau SAC	Bottlenose dolphin	Direct disturbance through increased underwater noise levels. Indirect effects on prey species.	The SAC lies approximately 151km from the Works Area, and within the relevant range for bottlenose dolphin, therefore there is potential for interaction between the	LSE are screened out for bottlenose dolphin at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent observations of marine mammals in the waters offshore of Hinkley Point (with none recorded during marine and coastal surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	NO

			species and the Proposed Works.		
Plymouth Sound and Estuaries SAC	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 107 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for allis shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	Twaite shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise.	The SAC is located approximately 79 km by land, and much further by sea, from the location of the	There is no potential for LSE for twaite shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are	NO

		Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 79 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape.	NO

				Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	River lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 79 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for river lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the	NO

				proposed activities will not result in any further habitat loss or disturbance.	
Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 79 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for allis shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.	NO
West Wales Marine / Gorllewin Cymru Forol SAC	Harbour porpoise	Direct disturbance through increased underwater noise levels. Indirect effects on prey species.	The SAC lies approximately 138km from the Works Area, and within the relevant range for porpoise,	LSE are screened out for harbour porpoise at this European Site. Although there is the potential for the mobile species to be in the vicinity, the Works Area is not in an area of sea noted as being of importance for the species. This is supported by the minimal and infrequent observations of harbour porpoise during survey works at the Site (with none recorded during marine and coastal	NO

			therefore there is potential for interaction between the species and the Proposed Works.	surveys associated with the Proposed Works between 2020 and 2022). On this basis and the small scale and nature of the Proposed Works, there is no potential for LSE at this European Site.	
Afon Tywi/ River Tywi SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 107 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance	NO
Afon Tywi/ River Tywi SAC	River lamprey	Direct effects such as disturbance /displacement	The SAC is located approximately	There is no potential for LSE for river lamprey at this European Site based on the following:	NO

		resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	107 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance	
Afon Tywi/ River Tywi SAC	Allis shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality.	The SAC is located approximately 107 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to	There is no potential for LSE for allis shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational	NO

		Direct effects through disturbance / potential habitat degradation.	transverse the proposed ZoI.	vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance	
Afon Tywi/ River Tywi SAC	Twaite shad	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 107 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for twaite shad at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated.	NO

				As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance	
River Itchen SAC	Salmon	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	The SAC is located approximately 130 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for salmon at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance	NO
Afonydd Cleddau / Cleddau River SAC	River lamprey	Direct effects such as disturbance /displacement resulting from	The SAC is located approximately 142 km by land, and much further	There is no potential for LSE for river lamprey at this European Site based on the following: The small scale and temporary nature of the Proposed Works within the context of the extremely large ranges of	NO

		propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance / potential habitat degradation.	by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	these species and the transient nature of habitat use throughout range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape. Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in increased suspended sediment levels. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance	
Afonydd Cleddau / Cleddau River SAC	Sea lamprey	Direct effects such as disturbance /displacement resulting from propagation of underwater noise. Direct effects through changes to ambient marine water quality. Direct effects through disturbance	The SAC is located approximately 142 km by land, and much further by sea, from the location of the Proposed Works, however migratory fish with large ranges have potential to transverse the proposed ZoI.	There is no potential for LSE for sea lamprey at this European Site based on the following: The Proposed Works are small scale and temporary nature in the context of extremely large ranges of these species and the transient nature of habitat use throughout their range. Adjacent alternative habitats are abundant and there are no barriers to up or downstream movement or migration. The Proposed Works are in keeping with activities occurring within this semi-industrialised environment (e.g. tankers, cargo ships, fishing vessels, recreational vessels etc.) and hence will not result in significant changes to the underwater soundscape.	NO

	/ potential habitat degradation.	Due to the already high suspended sediment load within the Severn Estuary, it is considered unlikely that any sediment released during the decommissioning activities will result in deterioration of water quality. Furthermore, any sediment mobilised will be re-released into the area from which it originated. As the works are associated with existing infrastructure, any habitat loss has already occurred, therefore the proposed activities will not result in any further habitat loss or disturbance.

5.2 In-combination assessment

5.2.1 The potential for other plans and projects to act in-combination with the Proposed Development has been considered based upon the relevant details presented within **Appendix C: Projects and plans considered within the in-combination assessment**. Of those plans and projects identified, particular focus is considered appropriate for the ongoing works at the HPC site, and those associated with the Bridgwater Tidal Barrier. Further narrative on these projects is provided below.

5.2.2 Works associated with the decommissioning and removal of the HPC jetty are anticipated to be undertaken in 2029. However, in the event that these works occur at the same time as the Proposed Works within the HPB Works Area, it has been established that they would be undertaken approximately 2km from the aggregation of shelduck (the primary area of concern with respect to the Proposed Works), to the northeast of Hinkley Point. Therefore, the works do not fall within the expected zone of influence for this species. On this basis, and given the conclusion of no LSE to shelduck associated with the HPB decommissioning works, the potential for in-combination effects can be discounted.

5.2.3 Also in relation to HPC, the proposed construction of a temporary laydown area for abnormal indivisible loads adjacent to the existing Combwich Wharf access road would be undertaken with sufficient separation distance from the River Parrett such that, given the limited nature of the works, no impact pathways to birds utilising habitats along the River Parrett are predicted. Furthermore, no functionally linked land has been identified within a zone of influence of these works. On this basis, and given the conclusion of no LSE to other interest features associated with the Severn Estuary SPA/Ramsar associated with the HPB decommissioning works, the potential for in-combination effects can be discounted.

5.2.4 The key works associated with the proposed Bridgwater Tidal Barrier will be located across the River Parrett between Express Park and Chilton Trinity. This is approximately 4.3 km upstream from the Severn Estuary SPA/Ramsar and 10-15 km upstream from the mouth of the River Parrett, which supports core roosting and loafing habitat of shelduck and other wildfowl and waders. In addition, the scheme includes construction of new secondary flood defences (and raising of existing primary defences) at Chilton Trinity, Pawlett, and Combwich. The findings of the HRA Process reported by the Environment Agency to support the application for the project[109] included detailed assessment for species identified as being of potential concern, including shelduck. Analysis and assessment in relation to potential effects on birds of the Severn Estuary and Somerset Levels and Moors SPA and Ramsar sites concluded that there would be adverse effects on the integrity of the assessed qualifying features for the sites. In light of the above, and given the conclusion of no LSE to other interest features associated with the Severn Estuary SPA/Ramsar associated with the HPB Proposed Works, the potential for in-combination effects can also be discounted.

5.2.5 With regards to non-ornithological qualifying features, based on the above understanding of the HPC jetty and Bridgwater Tidal Barrier in particular, the potential for in-combination effects has been discounted on the basis of the small area predicted to be affected by the Proposed Works, and the short-term nature of these works. This is supported by the Bridgwater Tidal Barrier HRA, as reported by the Environment Agency, concluding that there would be no adverse effects on site integrity on the Severn Estuary SAC and Ramsar site from the perspective of fish, nor on the Bristol Channel Approaches SAC for marine mammal qualifying species.

[109] Environment Agency (2019) Bridgwater Tidal Barrier Scheme: Report to Support a Habitats Regulations Assessment. November 2019.

6. Potential LSEs on European Sites

6.1 Screening Outcome

6.1.1 Stage 1 of the HRA process, which includes the four-part screening steps, requires the identification of the LSE upon a European site of a project or Plan, either alone or 'in combination' with other projects or plans, and considers whether these LSE are likely to be significant.

6.1.2 Based upon the discussion presented, and the conclusions reached in **Section 5** (notably **Table 5.1** and **Section 5.2**), there is no potential for LSEs to occur as a result of the Proposed Works in relation to any potential effect pathways on the qualifying features on any European Site within the Study Area. The relevant European Sites comprise the following:

- Severn Estuary SPA
- Severn Estuary Ramsar
- Severn Estuary/Môr Hafren SAC
- Exmoor and Quantock Oakwoods SAC
- Somerset Levels and Moors SPA
- Somerset Levels and Moors Ramsar
- River Usk / Afon Wsyg SAC
- River Axe SAC
- River Wye / Afon Gwy SAC
- River Clun SAC
- Bristol Channel Approaches / Dynesfeydd Môr Hafren SAC
- River Avon SAC
- Lundy SAC
- Pembrokeshire Marine / Sir Benfro Forol SAC
- Cardigan Bay / Bae Ceredigion SAC
- Pen Llyn a'r Sarnau / Lleyn Peninsula and the Sarnau SAC
- Plymouth Sound and Estuaries SAC
- Carmarthen Bay and Estuaries/ Bae Caerfyrddin ac Aberoedd SAC
- West Wales Marine / Gorllewin Cymru Forol SAC
- Afon Tywi/ River Tywi SAC
- River Clun SAC
- River Itchen SAC
- Afonydd Cleddau / Cleddau Rivers SAC

6.1.3 As there are no pathways for LSEs (either alone or in-combination with any other plans or projects) for any features of any European sites, there is no requirement for Stage 2 of HRA, Appropriate Assessment, to be undertaken.

320500 321000 321500 322000

146500 146000 145500

N

Hinkley Point A

Hinkley Point B

Key

Nuclear Site Licence Boundary ("The Site")

Indicative Dismantling Works Area ("Works Area")

0 100 200 300 m

Scale at A3: 1:6,000

Decommissioning of Hinkley Point B Nuclear Power Station
Habitats Regulations Appraisal Screening Report

Figure 1.1
HPB Indicative Dismantling Works Area (Works Area)

February 2024

808125-WOOD-XX-XX-FG-OE-00004_S2_C04

X:\UK\DCEMA100-ATT5\ATT5-FS7-Shared2\Projects\808125 HNB & HPB E\ADR\Deliver Stage\D Design_Technical\Drawings\ArcGIS\Hinkley Point B\MXD\808125-WOOD-XX-XX-FG-OM-00015_S2_C04.mxd Originator: UKJXP782

320500

321000

321500

146500

146000

N

Hinkley Point A

Hinkley Point B

Estimated height 66.5m

Southern access road

Key

Indicative Dismantling Works Area ("Works Area")

Nuclear Site Licence Boundary ("The Site")

Safestore structure

0 100 200 300 m

Scale at A3: 1:5,000

Decommissioning of Hinkley Point B Nuclear Power Station
Habitats Regulations Appraisal Screening Report

Figure 3.1
Safestore location

February 2024

X:\UK\DCEMA100-ATT5\ATT5-FS7-Shared2\Projects\808125 HNB & HPB E\ADR\Deliver Stage\D Design_Technical\Drawings\ArcGIS\Hinkley Point B\MXD\808125-WOOD-XX-XX-FG-OE-00020_S2_C02.mxd Originator: UKJXP782

300000 305000 310000 315000 320000 325000 330000 335000 340000 345000

165000 160000 155000 150000 145000 140000 135000 130000 125000

N

Key

- Indicative Dismantling Works Area ("Works Area")
- 5km perimeter
- 20km perimeter

0 2,000 4,000 6,000 8,000 m

Scale at A3:1:160,000

Decommissioning of Hinkley Point B Nuclear Power Station
Habitats Regulations Appraisal Screening Report

Figure 4.1
Study areas applied for HRA Screening

February 2024

X:\UK\DCEMA100-ATT5\ATT5-FS7-Shared2\Projects\808125 HNB & HPB EIADR\Deliver Stage\D Design_Technical\Drawings\ArcGIS\Hinkley Point B\MXD\808125-WOOD-XX-XX-FG-OM-00018_S2_C03.mxd Originator: UKJXP782

200000 300000 400000

300000 200000 100000

Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau

West Wales Marine / Gorllewin Cymru Forol

Cardigan Bay / Bae Ceredigion

Afonydd Cleddau / Cleddau Rivers

Pembrokeshire Marine / Sir Benfro Forol

Carmarthen Bay and Estuaries

Lundy

Bristol Channel Approaches / Dynesfeydd Mor Hafren

Afon Tywi / River Tywi

River Wye

River Usk / Afon Wysg

Exmoor & Quantock Oakwoods

Severn Estuary

River Avon

River Itchen

River Axe

Plymouth Sound & Estuaries

Snowdonia National Park

Brecon Beacons National Park

Exmoor National Park

Dartmoor National Park

New Forest National Park

Key

Indicative Dismantling Works Area ("Works Area")

Special Area of Conservation (SAC)

0 20 40 60 Kilometers

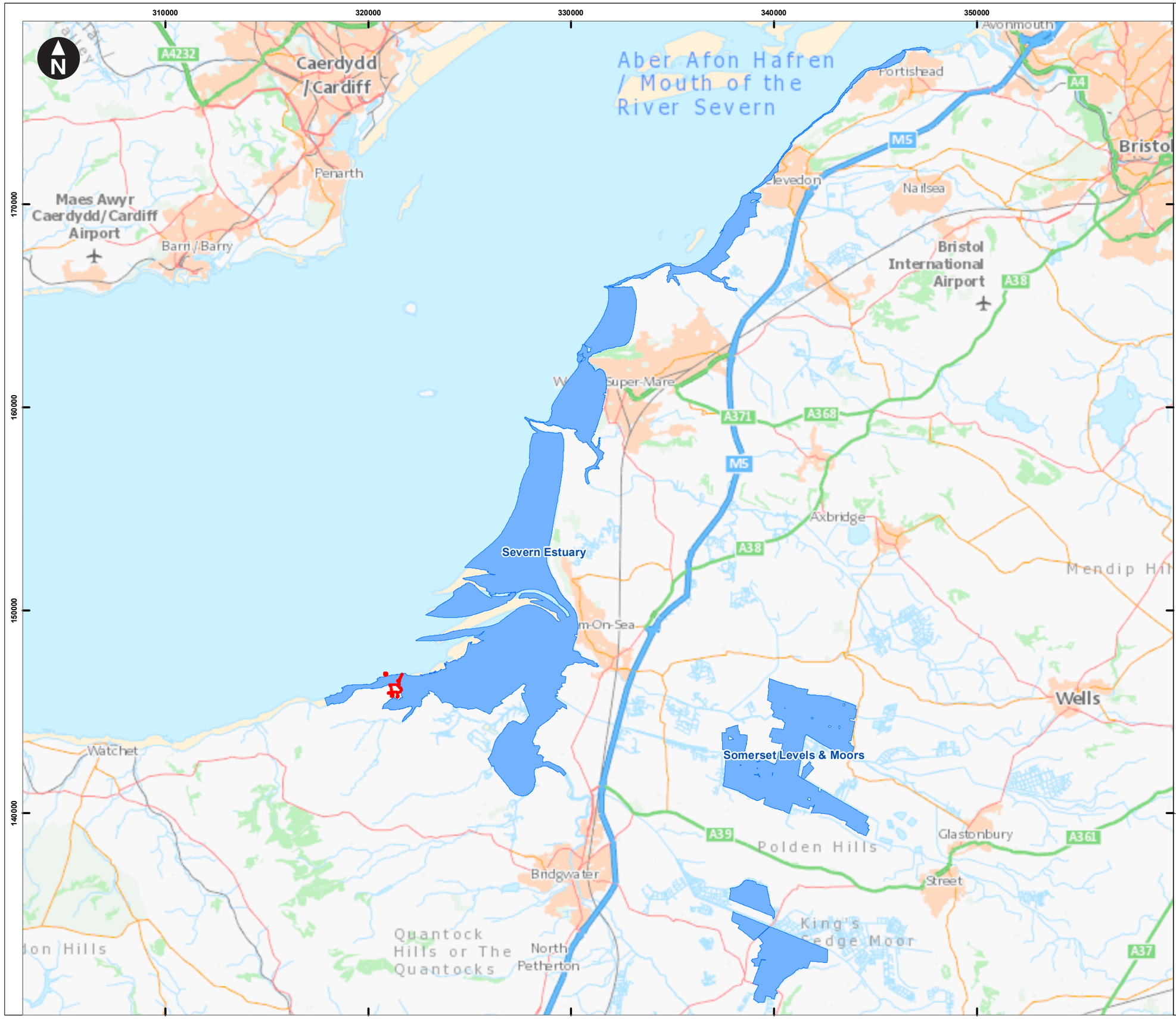
Scale at A3 1:1,200,000

Decommissioning of Hinkley Point B Nuclear Power Station
Habitats Regulations Appraisal Screening Report

Figure 5.1
SACs considered within HRA Screening

February 2024

808125-WOOD-XX-XX-FG-OM-00018_S2_C03



Key

Indicative Dismantling Works Area ("Works Area")

Special Protection Area (SPA) and Ramsar site

Decommissioning of Hinkley Point B Nuclear Power Station
Habitats Regulations Appraisal Screening Report

Figure 5.2
SPAs and Ramsar Sites considered within HRA Screening

February 2024

Appendix A
Supporting description of the Proposed Works

Preparation for Quiescence Phase

Operational waste processing facility

The use of an OWPF would be to process accumulated operational wastes on the station (excluding those stored in the High Active Debris Vaults) and ILW generated from the Proposed Works during the Preparations for Quiescence phase. The types of waste to be processed are expected to include miscellaneous contaminated items including desiccant, catalyst, resins, sludges, and sands.

Studies are ongoing to confirm whether waste generated from the Proposed Works during the Preparations for Quiescence phase will require an OWPF. Options to either utilise existing NRS waste processing facilities at HPA or to include a facility for processing and packaging operational waste within the DWPF are being considered alongside the potential of a new building to house the facility.

Should a new building be required, it will be located in the position shown on **Graphic 3.2** and would require a Town and Country Planning Act[110] (TCPA) application to construct and operate the facility. The building will consist of a metal-clad portal frame structure on a concrete floor with a maximum floorspace of 1,200 m^2 and maximum height of approximately 15 m. The construction (if required) and commissioning of the OWPF may overlap with the end of the defueling process to ensure the facilities' readiness for the start of deplanting and deconstruction.

Following the completion of active area deplanting during the Preparations for Quiescence phase, the OWPF will be decommissioned and the building deconstructed.

Decommissioning waste processing facility

Optioneering to define whether the DWPF will utilise existing buildings on Site or require a new build structure is ongoing. The planned location of the DWPF is shown on **Graphic 3.2**. This is currently the location of the on-site contractor's compound for outages and other non-standard operations on-site and this area therefore requires demolition prior to the start of construction of the DWPF. This demolition stage and subsequent construction may utilise the southern access road to HPB shown on **Graphic 3.2**. Improvements to the southern access road may be required to facilitate this and would be included within the planning application for the DWPF. It is anticipated that the structure would have a maximum footprint of 2,000 m^2 and a maximum building height of 15 m. It is likely to consist of a metal-clad portal frame structure on a concrete floor.

Most conventional wastes will be consigned in accordance with the waste hierarchy directly from the workface, however, conventional wastes from active areas are expected to be routed through the DWPF for reassurance monitoring to confirm that they are out of scope of Radioactive Substances Regulations[111]. LAW wastes processed in the DWPF will be sorted according to

[110] UK Government (1990) Town and Country Planning Act 1990. Available online at: Town and Country Planning Act 1990 (legislation.gov.uk) (Accessed November 2022)
[111] UK Government. (1993). *Radioactive Substances Act 1993*. (Online) Available at: https://www.legislation.gov.uk/ukpga/1993/12/contents (Accessed: 31 August 2022)

physical, chemical and radio-chemical characteristics. Some active area deplanting waste, assumed to be LAW, could be reassessed as Higher Activity Waste (HAW) which may then require processing elsewhere in the DWPF or be transferred to the OWPF. As currently happens during operations, metallic waste will be consigned for treatment and recycling where practicable, wastes that can be incinerated will be sent for incineration and other wastes will be sent for disposal. Decontamination processes and volume reduction techniques will be employed where appropriate to reduce the volume of radioactive waste to be disposed.

The DWPF will not be required following the end of deplanting and deconstruction and will therefore be decommissioned and deconstructed at the end of the Preparations for Quiescence phase.

Storage of ILW

It is assumed that ILW waste processed during the Preparations for Quiescence phase will be stored in the HPA Interim Storage Facility (ISF). This assumption is subject to further development work and the necessary regulatory approvals. It is assumed that the limited quantities of ILW generated which require storage at the existing HPA ISF will be transferred to the facility through an existing gate between HPB and HPA and thus will not require movements on the local highway network.

Government policy outlines the intention for the creation of a GDF to receive HAW from the decommissioning of English and Welsh reactors. It is anticipated that waste stored in the interim at HPA ISF will be transferred to this site when the GDF is operational. It is also anticipated that this GDF will be available to accept ILW generated from the Proposed Works in the Final Site Clearance.

Appendix B
Bird Survey – Survey Data Summary of Qualifying Interest Species

Survey data summary is supported by **Figure 3B.1: (Ornithological Survey Areas).**

Site designation	Qualifying feature	Summary of available data for all qualifying features
Severn Estuary SPA	Bewick's swan	HPC Intertidal surveys – 2017 – 2024 **– No records** HPB Intertidal surveys 2019/2020 **– No records**
	Shelduck	HPC Intertidal surveys 2016/2017: **Peak count sector 5 - 132, Peak count sector 4 - 9, Sector 3 – No records** HPC Intertidal surveys 2017/2018: **Peak count sector 5 - 7, Peak count sector 4 - 3, Peak count sector 3 - 2** HPC Intertidal surveys 2018/2019: **Peak count sector 5 - 1,030 (November), peak count sector 4 - 87, sector 3 - N/A** HPC Intertidal surveys 2019/2020: **Peak count across all sectors - 140** HPC Intertidal surveys 2020/2021: **Peak count across all sectors – 185** HPC Intertidal surveys 2021/2022: **Peak count across all sectors – 43** HPC Intertidal surveys 2022/2023: **Peak count across all sectors – 456** **HPC Intertidal surveys 2023/2024: Peak count across all sectors – 304** HPB Intertidal surveys 2019/2020 - M**onthly peak count (Sectors 1 and 2) - Sep (437), Oct (47), Nov (290), Dec (11), Jan (36), Feb (4), Mar (37)** Shelduck monitoring (June - Oct) 2016 - **Areas where peak counts break 1% SPA threshold - Grid square 18 (Aug/Sep), Grid square 19 (Jul/Aug/Sep):** Peak monthly count for each 1km grid square over the four-hour high-tide period within a 500m ZoI of Proposed Works Area: Grid square 18 – September - peak count 296 (High tide + 2hrs; Grid square 19 – September – peak count 736 (High tide + 2 hrs) Shelduck monitoring (June - Oct) 2017 - **Areas where peak counts break 1% SPA threshold - Grid square 18 (Aug/Sep) and 19 (Jul/Aug):** Peak monthly count for each 1km grid square over the four-hour high-tide period within a 500m ZoI of Proposed Works Area: Grid square 18 – August - peak count 316 (High tide + 2hrs; Grid square 19 – August – peak count 351 (High tide + 2 hrs) Shelduck monitoring (June - Oct) 2018 - **Areas where peak counts break 1% SPA threshold - Grid square 18 and 29 (Jun), 19 (Jul), 8, 9, 18 and 19 (Aug and Sep):** Peak monthly count for each 1km grid square over the four-hour high-tide period within a 500m ZoI of Proposed Works Area: Grid square 8 – August – peak count 590 (High tide + 1 hr); Grid square 9 – August - peak count 556 (High tide); Grid square 18 – August - peak count 1,400 (High tide + 2 hrs); Grid square 19 – August - peak count 564 (High tide + 2hrs); Grid square 29 – June – peak count 94 (High tide + 2 hrs). Shelduck monitoring (June – Oct) 2019 – **Population survey data from Count Sector 2 – Peak counts 296 – 770 (17 July – 02 October)** Shelduck monitoring (June – Oct) 2020 – **Population survey data from Count Sector 2 – Peak counts 456 – 838 (07 August – 08 October)** Shelduck monitoring (June – Oct) 2021 – **Population survey data from Count Sector 2 – Peak counts 86 – 1,611 (13 August – 10 October)**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		Shelduck monitoring (June – Oct) 2022 - **Population survey data from Count Sector 2 – Peak counts 318 – 1,953 (13 July – 12 October)** Shelduck monitoring (June – Oct) 2023 – **Population survey data from Count Sector 2 – Peak counts 214 – 621 (22 August – 03 October)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 - 1,665 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 1,970
	Gadwall	2016 - 2024 intertidal surveys – **No records**
	Dunlin	HPC Intertidal surveys 2016/2017 - **Count sector 5 peak count 56, count sectors 3 and 4 - N/A** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 420** HPC Intertidal surveys 2021/2022 - **No records** HPC Intertidal surveys 2022/2023 - **No records** HPC Intertidal surveys 2023/2024 – **95 (across all sectors)** HPB Intertidal surveys 2019/20 - **Monthly peak count (Sectors 1 and 2) - Sep (4)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast - 3 Hinkley Point B Land Management Annual Review 2021 – No birds recorded
	Redshank	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **Peak count 3 (across all count sectors)** HPC Intertidal surveys 2020/2021 - **Peak count 3 (across all count sectors)** HPC Intertidal surveys 2021/2022 - **Peak count 3 (across all count sectors)** HPC Intertidal surveys 2022/2023 **- Peak count 9 (across all count sectors)** HPC Intertidal surveys 2023/2024 – **Peak count 18 (across all count sectors)** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Jan (24), Feb (2)** Hinkley Point B Land Management Annual Review 2020 – No birds recorded Hinkley Point B Land Management Annual Review 2021 – No birds recorded
	Greater white-fronted goose	HPC Intertidal surveys 2017 – 2024 **– No records** HPB Intertidal surveys 2019/2020 **– No records**

Site designation	Qualifying feature	Summary of available data for all qualifying features
Severn Estuary SPA	Eurasian wigeon (Assemblage)	HPC Intertidal surveys - **Baseline maximum mean of peak counts (2007/08 - 08/09) – 351** HPC Intertidal surveys - **Maximum mean of peak counts (2013/14 - 2018/19) – 180** HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 8, count sector 4 - peak count 26, count sector 3 - peak count (62)** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count 54, count sector 4 - peak count 45** HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 42, count sector 4 - peak count 40** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors - 16** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 16** HPC Intertidal surveys 2021/2022 - **Peak count across all sectors - 14** HPC Intertidal surveys 2022/2023 **- Peak count across all sectors - 59** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors - 19** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Nov (26), Dec (75), Jan (19), Feb (29), Mar (37)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 - 340 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 339
	Teal (w) (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 — **Count sector 5 – no records, count sector 4 - peak count 1** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **Peak Count - 1** HPC Intertidal surveys 2022/2023 – **Peak count - 6** HPC Intertidal surveys 2023/2024 - **Peak Count - 1** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Oct (3), Nov (3), Dec (3), Jan (11)** Hinkley Point B Land Management Annual Review 2020 – **No birds recorded** Hinkley Point B Land Management Annual Review 2021 – **No birds recorded**
	Northern pintail (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 peak count 210, count sector 4 peak count 21** HPC Intertidal surveys 2017/2018 - **Count sector 5 peak count 12, count sector 4 – no records** HPC Intertidal surveys 2018/2019 - **Count sector 5 peak count 44, count sector 4 peak count 3** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors - 60** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 60** HPC Intertidal surveys 2021/2022 – **Peak Count across all sectors – 96** HPC Intertidal surveys 2022/2023 – **Peak Count across all sectors – 54** HPC Intertidal surveys 2023/2024 - **Peak Count across all sectors – 46** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (59), Oct (28), Nov (270), Dec (61), Jan (9), Feb (13), Mar (15)**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 - 234 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 615
	Mallard (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 9, count sector 4 - no records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 16, count sector - 4 peak count 18** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors - 25** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 4** HPC Intertidal surveys 2021/2022 – **Peak Count across all sectors – 14** HPC Intertidal surveys 2022/2023 – **Peak Count across all sectors – 21** HPC Intertidal surveys 2023/2024 - **Peak Count across all sectors – 26** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (47), Oct (30), Nov (17), Dec (44), Jan (30), Feb (12), Mar (2)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 - 143 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 76
	Shoveler (Assemblage)	HPC Intertidal surveys – 2017 – 2024 **- Species infrequently recorded in the Survey Area** HPB Intertidal surveys 2019/2020 **– No records**
	Grey plover (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 4, count sector 4 - peak count 13** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors - 8** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **Peak Count across all sectors – 4** HPC Intertidal surveys 2023/2024 - **No records** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) – No records** Hinkley Point B Land Management Annual Review 2020 – **Peak count along coast during 2019/20 – No records** Hinkley Point B Land Management Annual Review 2021 – **Peak count along coast during 2020/21 - 1**
	Northern lapwing (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 - **No records** HPB Intertidal surveys 2019/2020 – **Monthly peak count (Sectors 1 and 2) - Dec (79)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 – No records Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 1
	Whimbrel (p) (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 - **No records** HPC Intertidal surveys 2021/2022 – **No records** HPB Intertidal surveys 2019/2020 - monthly peak count (Sectors 1 and 2) – **No records**
	Curlew (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 7, count sector 4 - peak count 15, count sector 3 - peak count (2)** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count 4, count sector 4 - peak count 8, count sector 3 - peak count (1)** HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 2, count sector 4 - peak count 6, count sector 3 - peak count (1)** HPC Intertidal surveys 2019/2020 – P**eak count across all sectors - 26** HPC Intertidal surveys 2020/2021 - P**eak count across all sectors - 15** HPC Intertidal surveys 2021/2022 – P**eak count across all sectors - 15** HPC Intertidal surveys 2022/2023 – P**eak count across all sectors - 20** HPC Intertidal surveys 2023/2024 – P**eak count across all sectors - 7** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (62), Oct (14), Nov (7), Dec (7), Jan (14, Feb (10), Mar (10)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 – 46 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 146
	Spotted redshank (w) (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **No records** HPB Intertidal surveys 2019/2020 – **No records**
	Ringed plover (Assemblage)	HPC Intertidal surveys 2016/2017 - C**ount sector 5 and count sector 4 N/A, count sector 3 peak count 1** HPC Intertidal surveys 2017/2018 - **Count sector 5 peak count 0, count sector 4 peak count 2, count sector 3 peak count 1** HPC Intertidal surveys 2018/2019 - **count sector 5 peak count 3, count sector 4 peak count 6** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors - 26** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 2** HPC Intertidal surveys 2021/2022 – **Peak count across all sectors – 9** HPC Intertidal surveys 2022/2023 – **Peak count across all sectors – 6** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors – 4** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Oct (14)**
	Lesser black-backed gull (b) (Assemblage)	Breeding bird surveys 2019 - **20 pairs recorded nesting within the Proposed Works Area.** Breeding bird surveys 2021 - **7 pairs recorded nesting within the Proposed Works Area.** Breeding bird surveys 2022 - **6 pairs recorded nesting within the Proposed Works Area.** Hinkley Point B Nesting Gull Population Surveys – HPB - 20 pairs (2019), 7 (2021), 6 pairs (2022) and 6 pairs (2023).
	Herring gull (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 - **Peak count sector 5 - 40, peak count sector 4 - 36, peak count sector 3 (86)** HPC Intertidal surveys 2018/2019 - **Peak count sector 5 - 73, peak count sector 4 - 93, peak count sector 3 (53)** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **No records** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (37), Nov (172), Dec (246), Jan (190)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 – 263 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 – 674 Hinkley Point B Nesting Gull Population Surveys – HPB - 186 pairs (2020); 191 (2021); 189 (2022) and 185 (2023).
	Knot (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **No records** HPB Intertidal surveys 2019/2020 – **No records**
	Black-headed gull (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 6, count sector 4 - peak count 18, count sector 3 - peak count (14)** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count 9, count sector 4 - peak count 10, count sector 3 - peak count (3)** HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 12, count sector 4 - peak count 13, count sector 3 - peak count (2)** HPC Intertidal surveys 2019/2020 – **Previous reports included gull species however these were omitted from recording in 2021 as they are not listed on the SPA, SSSI or Ramsar citations as important wintering species.** HPC Intertidal surveys 2020/2021 – **As above** HPC Intertidal surveys 2021/2022 – **As above** HPC Intertidal surveys 2022/2023 – **As above** HPC Intertidal surveys 2023/2024 – **As above** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (254), Oct (102)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 – 252 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 604
	Black-tailed godwit (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **No records** HPB Intertidal surveys 2019/2020 – **No records**
	Pochard (w) (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **No records** HPB Intertidal surveys 2019/2020 – **No records**
	Tufted duck (w) (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 – **No records** HPC Intertidal surveys 2018/2019 – **No records** HPC Intertidal surveys 2019/2020 – **No records** HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **No records** HPB Intertidal surveys 2019/2020 – **No records**
	Oystercatcher (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 4, count sector 4 peak count 13, count sector 3 peak count (30)** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count 5, count sector 4 peak count 29, count sector 3 peak count (27)** HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 37, count sector 4 peak count 28, count sector 3 peak count (10)** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors - 65** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 36** HPC Intertidal surveys 2021/2022 – **Peak count across all sectors – 44** HPC Intertidal surveys 2022/2023 – **Peak count across all sectors – 61** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors – 35** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (68), Oct (47), Nov (26), Dec (48), Jan (29), Feb (27), Marc (30)** Hinkley Point B Land Management Annual Review 2020 – **Peak count along coast during 2019/20 – 149** Hinkley Point B Land Management Annual Review 2021 – **Peak count along coast during 2020/21 - 166**
	Turnstone (Assemblage)	HPC Intertidal surveys 2016/2017 – **No records** HPC Intertidal surveys 2017/2018 - **Count sector 3 - peak count 1** HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 1, count sector 4 – no records** HPC Intertidal surveys 2019/2020 – P**eak count across all sectors - 20** HPC Intertidal surveys 2020/2021 - P**eak count across all sectors – 15**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		HPC Intertidal surveys 2021/2022 – **Peak count across all sectors – 15** HPC Intertidal surveys 2022/2023 – **Peak count across all sectors – 20** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors – 10** HPB Intertidal surveys 2019/2020 – **Monthly peak count (Sectors 1 and 2) - Sep (25), Oct (1), Nov (1), Dec (4), Jan (1), Feb (5), Mar (1)** Hinkley Point B Land Management Annual Review 2020 – **Peak count along coast during 2019/20 – 1** Hinkley Point B Land Management Annual Review 2021 – **Peak count along coast during 2020/21 – No records**
	Dark-bellied brent goose (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 peak count 2, count sector 4 peak count 2** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count N/A, count sector 4 - peak count 4, count sector 3 - peak count 4** HPC Intertidal surveys 2018/2019 - **Count sector 3 - peak count 6** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors - 8** HPC Intertidal surveys 2020/2021 – **No records** HPC Intertidal surveys 2021/2022 – **No records** HPC Intertidal surveys 2022/2023 – **No records** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors – 10** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Oct (9), Dec (26), Jan (39), Feb (114), Mar (52)** Hinkley Point B Land Management Annual Review 2020 – **Peak count along coast during 2019/20 – 210** Hinkley Point B Land Management Annual Review 2021 – **Peak count along coast during 2020/21 - 187**
	Light-bellied brent goose (Assemblage)	HPC Intertidal surveys 2016/2017 - C**ount sector 5 - peak count 6, count sector 4 - peak count 31** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count 1, count sector 4 – peak count 17, count sector 4 - peak count 23** HPC Intertidal surveys 2018/2019 - **Count sector 5 – no record, count sector 4 - peak count 6, count sector 3 - peak count 12** HPC Intertidal surveys 2019/2020 - **Peak count across all sectors – 41** HPC Intertidal surveys 2020/2021 - **Peak count across all sectors – 51** HPC Intertidal surveys 2021/2022 – **Peak count across all sectors – 76** HPC Intertidal surveys 2022/2023 – **Peak count across all sectors – 43** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors – 46** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - 1**
	Little egret (Assemblage)	HPC Intertidal surveys 2016/2017 - **Count sector 5 - peak count 5, count sector 4 - peak count 1** HPC Intertidal surveys 2017/2018 - **Count sector 5 - peak count 0, count sector 4 - peak count 6, count sector 3 - peak count 1**

Site designation	Qualifying feature	Summary of available data for all qualifying features
		HPC Intertidal surveys 2018/2019 - **Count sector 5 - peak count 3, count sector 4 - peak count 6, count sector 3 - peak count 2** HPC Intertidal surveys 2019/2020 – **Peak count across all sectors – 2** HPC Intertidal surveys 2021/2022 – **Peak count across all sectors – 4** HPC Intertidal surveys 2022/2023 – **Peak count across all sectors – 5** HPC Intertidal surveys 2023/2024 – **Peak count across all sectors – 10** HPB Intertidal surveys 2019/2020 - **Monthly peak count (Sectors 1 and 2) - Sep (9), Oct (7), Nov (3), Jan (1)** Hinkley Point B Land Management Annual Review 2020 – Peak count along coast during 2019/20 – 4 Hinkley Point B Land Management Annual Review 2021 – Peak count along coast during 2020/21 - 8
Severn Estuary Ramsar	Bewick's swan (w)	**See Severn Estuary SPA**
	European white fronted goose (w)	**See Severn Estuary SPA**
	Dunlin (w/p)	**See Severn Estuary SPA**
	Redshank (w/p)	**See Severn Estuary SPA**
	Shelduck (w)	**See Severn Estuary SPA**
	Gadwall (w)	**See Severn Estuary SPA**
	Ringed plover (w/p)	**See Severn Estuary SPA**
	Teal (w)	**See Severn Estuary SPA**
	Pintail (w)	**See Severn Estuary SPA**
	Curlew (w)	**See Severn Estuary SPA**
	Grey plover (w)	**See Severn Estuary SPA**
	Spotted redshank (w)	**See Severn Estuary SPA**
	Wigeon (w)	**See Severn Estuary SPA**

Site designation	Qualifying feature	Summary of available data for all qualifying features
	Lesser black-backed gull (b)	Breeding bird surveys 2019 - **20 pairs** Breeding bird surveys 2021 - **7 pairs** Breeding bird surveys 2022 - **6 pairs**
Somerset Levels and Moors SPA/Ramsar	Bewick's swan	**See Severn Estuary SPA**
	Teal	**See Severn Estuary SPA**
	Golden plover	HPC Intertidal surveys – 2017 – 2022 **- Species infrequently recorded in the Survey Area**
	Northern lapwing	**See Severn Estuary SPA**
Somerset Levels and Moors SPA/Ramsar	Gadwall (Assemblage)	**See Severn Estuary SPA**
	Snipe (Assemblage)	HPC Intertidal surveys – 2016 – 2024 **- Species infrequently recorded in the Survey Area** HPB Intertidal surveys 2019/2020 **– No records**
	Whimbrel (Assemblage)	**See Severn Estuary SPA**
	Mute swan (Assemblage)	HPC Intertidal surveys – 2016 – 2024 **- Species infrequently recorded in the Survey Area** HPB Intertidal surveys 2019/2020 **– No records**
	Wigeon (Assemblage)	**See Severn Estuary SPA**
	Shoveler (Assemblage)	HPC Intertidal surveys – 2016 – 2024 **- Species infrequently recorded in the Survey Area** HPB Intertidal surveys 2019/2020 **– No records**
	Pintail (Assemblage)	**See Severn Estuary SPA**

X:\UK\DCEMA100-ATT5\ATT5-FS7-Shared2\Projects\808125 HNB & HPB EIADR\Deliver Stage\D Design_Technical\Drawings\ArcGIS\Hinkley Point B\MXD\808125-WOOD-XX-XX-FG-OE-00005_S2_C03.mxd Originator: UKJXP782

315000 320000 325000 330000

155000 150000 145000

Key

- Indicative Dismantling Works Area ("Works Area")
- Nuclear Site Licence Boundary ("The Site")
- Bird monitoring survey area
- Inter-tidal survey sector
- Observation point (1-6)

Original Transect Route Lines - 2012

- 1
- 2
- 3
- 4
- 5
- 6

Revised Transect Route Lines - 2014

- 1
- 2
- 3
- 4
- 5

Note:
Observation points 1, 4 and 5 only were used in 2016 and 2017.

The following grid squares are not visible from OPs 1, 4 and 5: 1-2, 11-12, 21-22, 31-34, 39-44 .

0 500 1,000 1,500 2,000 2,500 3,000 3,500 m

Scale at A3: 1:65,000

Decommissioning of Hinkley Point B Nuclear Power Station
Habitats Regulations Appraisal Screening Report

Figure 3B.1
Ornithological survey areas

February 2024

808125-WOOD-XX-XX-FG-OE-00005_S2_C03

Appendix C
Projects and plans considered within the in-combination assessment

The below table was originally presented within the Scoping Report for the Proposed Works (July 2022) and has been checked against the original resources to confirm no further plans or projects have subsequently met the criteria to be considered.

ID	Council	Application Reference	Address / Post code	National Grid Reference	Description of development
1	Planning Inspectorate	Hinkley Point C New Nuclear Power Station Granted DCO and Non-Material Change	Site to the west of TA5 1UD	ST 21043 45928	Proposal for a nuclear power station with two nuclear reactors capable of generating a total of up to 3,260MW of electricity at Hinkley Point C and subsequent non-material or material amendments.
2	Somerset West and Taunton Council	3/39/20/003 Awaiting Decision	Land to the west of Williton, off Priest Street, Williton	ST 07556 40944	Outline application (with all matters reserved) for the erection of up to 350 dwellings (comprising a mix of dwelling sizes and types and affordable housing), approximately 1,000sqm of flexible uses within Use class E (limited to offices, R&D and light industrial), vehicle access, public open space, sports and recreational facilities, footpaths, cycle ways, enhancements to the Barrows scheduled monument including information boards, landscaping and associated works.
3	Sedgemoor District Council	11/19/00003 Granted Permission	Land to the East of, Isleport Lane, Highbridge, Somerset	ST 32894 47536	Outline application with some matters reserved, for residential development of up to 248no. dwellings (Use Class C3), community uses/local shop (D1/A1), public open space and green infrastructure, new vehicle access points from Isleport Lane and associated engineering, drainage, landscape and infrastructure works; Access to be determined and all other matters reserved.
4	Sedgemoor District Council	52/19/00001 Granted Permission	Land At, Brue Farm, Huntspill Road, Highbridge, Somerset, TA9 3DE	ST 31739 46940	Hybrid (full and outline) application for the erection of 171 dwellings together with associated infrastructure, including provision of roundabout and public open space and seeking outline permission with all matters reserved for the erection of a primary school.
5	Sedgemoor District Council	28/22/00003	Mill Farm Caravan	ST 21964 40884	Development of 58 no. additional touring caravan pitches. Continued use of existing 53 no. touring caravan pitches in Home Meadow for use by HPC

ID	Council	Application Reference	Address / Post code	National Grid Reference	Description of development
		Granted Permission	Park, Watery Lane, Fiddington, Bridgwater, Somerset, TA5 1JQ		workers until 31st December 2025. Erection of welfare block and relocation of trampoline block adjacent to proposed welfare block. Repositioning of MUGA (previously approved through application reference 28/20/00006).
6	Sedgemoor District Council	13/19/00023 Granted Permission	Combwich Wharf, Land The South Of, Estuary Park, Combwich, Bridgwater, Somerset, TA5	ST 26040 41758	Construction of temporary laydown area for abnormal indivisible loads adjacent to the existing Combwich Wharf access road, including construction of hardstanding, erection of fencing, gates, lighting, CCTV cameras, mobile welfare facilities, landscaping, earthworks and all other associated works in connection with construction of HPC power station.
7	Sedgemoor District Council	23/19/00002 Under consideration	Land To The South Of, Quantock Road, Bridgwater, Somerset	ST 28466 37016	Hybrid (full and outline) application. Full application for the erection of 114 dwellings, formation of signal-controlled access off Quantock Road with associated infrastructure, landscaping and open space (phase 1). Outline application with all matters reserved for the erection of up to 240 residential dwellings with associated infrastructure, landscaping and open space (phase 2).
8	Sedgemoor District Council	23/18/00013 Granted Permission	Durleigh Water Treatment Works, Durleigh Reservoir, Enmore Road, Durleigh, Bridgwater,	ST 26217 35923	Demolition of existing buildings and the redevelopment of the site including the erection of a new main treatment building including process hall/welfare area, low lift pumping area, GRP monitoring room kiosk and GRP disinfection static mixer kiosk. Removal of 17.5m of existing hedgerow along Enmore Road and construction of temporary pedestrian footbridge to gain access to temporary construction compound to the East of Enmore Road to facilitate works to be undertaken under Permitted Development Rights. Installation of nesting bank to northern side of Durleigh Reservoir.

ID	Council	Application Reference	Address / Post code	National Grid Reference	Description of development
			Somerset, TA5 2AW		
9	Sedgemoor District Council	23/18/00016 Granted Permission	Durleigh Reservoir, Enmore Road, Durleigh, Bridgwater, Somerset, TA5 2AW	ST 26217 35923	Formation of new wetlands on land west of Durleigh Water Treatment Works (WTW) and Reservoir. Erection of 2 No. footbridges to maintain access to public rights of way.
10	Sedgemoor District Council	51/19/00003 Under Consideration	Land at Cokerhurst Farm South of Wembdon Hill & North of, Quantock Road, Bridgwater, Somerset	ST 27723 37241	Hybrid (full and outline) application. Full application for the erection of 238 dwellings, formation of two new means of access onto A39, pedestrian/cycle link onto Wembdon Hill, public open space, parking and landscaping. Outline application with all matters reserved, for up to 437 dwellings, 500sqm (A1-A5) and/or community uses (D1)), 2.2ha site for up to 2 Form Entry Primary School and bus gate/emergency access via Inwood Road with associated infrastructure, landscaping and works.
11	Sedgemoor District Council	11/22/00017 Granted Permission	1 Hooper Close, Highbridge, TA9 4JU	ST 327477	Proposed redevelopment of land for 3no. commercial units (use class B2, B8, Eg(i)) and associated works.
12	Sedgemoor District Council	13/21/00041 Granted Permission	The Yeo Valley Organic Company, Cannington, Bridgwater, TA5 2ND	ST 24917 38880	Installation of ground mounted PV (Solar Panels) to provide carbon free electricity.

ID	Council	Application Reference	Address / Post code	National Grid Reference	Description of development
13	Sedgemoor District Council	The Bridgwater Tidal Barrier Order 2022[112]		ST 30312 39146	Build a tidal surge barrier across the River Parrett between Express Park and Chilton Trinity to help better manage tidal flood risk to Bridgwater. Improve the flood defences downstream of the barrier. This would be done by increasing the height of the existing riverside flood banks in some areas. Elsewhere new flood banks to be built to increase protection to villages.
14	Sedgemoor District Council	09/23/00003 Application Registered		ST 32211 37539	Hybrid planning application (Outline and Full), Outline application with some matters reserved for the demolition of existing buildings and erection of up to 750 dwellings, primary school, community facility, access and access points (vehicular, pedestrian and cycle), public open space, play areas, landscaping, drainage, infrastructure and other associated works. Full planning application for the formation of noise bund, spine road, drainage, associated landscaping and other engineering works.
15	Sedgemoor District Council	37/22/00126 Under Consideration		ST 29345 34330	Erection of 150no. dwellings including access, landscaping, infrastructure and associated works.

[112] UK Government. 2022. The Bridgwater Tidal Barrier Order 2022. [Online]. [Accessed: 15/03/2023]. Available at: https://www.legislation.gov.uk/uksi/2022/299/introduction/madehttps://www.legislation.gov.uk/uksi/2022/299/introduction/made