Black Pool Mill Wall Repair

Habitats Regulations Assessment (HRA)

Final Report

November 2024

Prepared for:

Bluestone Resorts Ltd

www.jbaconsulting.com

Document Status

Issue date	November 2024
Issued to	Liz Weedon
BIM reference	LTU-JBA-XX-XX-AS-EN-0001-S3-P01-HRA_Screening_and_Assessment
Revision	P01
Prepared by	Robin Searle BSc ACIEEM Senior Ecologist
Reviewed by	Jonathan Harrison BSc MSc MCIEEM Senior Ecologist
Authorised by	Jonathan King MEng PhD CEng MICE Project Manager

Carbon Footprint

The format of this report is optimised for reading digitally in pdf format. Paper consumption produces substantial carbon emissions and other environmental impacts through the extraction, production and transportation of paper. Printing also generates emissions and impacts from the manufacture of printers and inks and from the energy used to power a printer. Please consider the environment before printing.

Contract

JBA Project Manager	Jonathan King MEng PhD CEng MICE
Address	Kings Chambers, 8 High St, Newport NP20 1FQ
JBA Project Code	2023s1481

This report describes work commissioned by Bluestone Resorts Ltd, by an instruction dated 7th February 2024. Robin Searle and Jonathan Harrison of JBA Consulting carried out this work.

Purpose and Disclaimer

Jeremy Benn Associates Limited ("JBA") has prepared this Report for the sole use of Bluestone Resorts Ltd and its appointed agents in accordance with the Agreement under which our services were performed.

JBA has no liability for any use that is made of this Report except to Bluestone Resorts Ltd for the purposes for which it was originally commissioned and prepared.

No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by JBA. This Report cannot be relied upon by any other party without the prior and express written agreement of JBA.

Copyright

Contents

List of Figures

List of Tables

Abbreviations

CEMP	Construction Environmental Management Plan
CSZ	Core Sustenance Zone
PCNPA	Pembrokeshire Coast National Park Authority
EC	European Community
EPS	European Protected Species
HRA	Habitats Regulations Assessment
INNS	Invasive Non-Native Species
JBA	Jeremy Benn Associates
JNCC	Joint Nature Conservation Committee
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Appraisal
RPA	Root Protection Area
SAC	Special Area of Conservation
SPA	Special Protection Area for birds
SSSI	Site of Special Scientific Interest

1 Introduction

1.1 Purpose of this Report

This report has been produced by JBA Consulting on behalf of Bluestone Resorts Ltd to undertake a Habitat Regulations Assessment (HRA) in relation to wall repair works on the riverbank downstream of Blackpool Mill, Narberth.

A Preliminary Ecological Appraisal (PEA) was carried out by JBA Consulting at the site in November 2023 (JBA, 2024a) identified two international-level sites designated as Special Area of Conservation (SAC) within and directly adjacent to the proposed works area. These are:

- Pembrokeshire Marine/Sir Benfro Forol SAC
- Afonydd Cleddau / Cleddau Rivers SAC
- Pembrokeshire Bat Sites and Bosherton Lakes SAC

This Habitats Regulations Assessment (HRA) document provides Pembrokeshire Coast National Park Authority (PCNPA) information to assist in their consideration of whether the proposed works will have likely significant effects on European Sites, and in ascertaining any adverse effects on their integrity.

1.2 Legislative Context

The Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (amendment) (EU Exit) Regulations 2019), also known as the 'Habitats Regulations', provide legal protection to habitats and species of national importance. The regulations also secure an ecological network of protected sites, consisting of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Government guidance also requires that Ramsar sites (which support internationally important wetland habitats and are listed under the Convention on Wetlands of International Importance [Ramsar Convention]) are given the same level of protection as SACs and SPAs.

Prior to the UK's withdrawal from the EU, SACs were designated and protected under domestic legislation transposed from European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive), and SPAs under European Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive). Together these sites formed a European-wide Natura 2000 network of protected sites. Since 31 December 2020, SACs and SPAs within the UK no longer fall within the Natura 2000 network, and instead form a National Site Network. SPAs and SACs continue to be referred to collectively as 'European sites' within the context of the Habitats Regulations, reflecting their international importance for the conservation of biodiversity.

SACs and SPAs within the National Site Network are also still designated for habitats listed on Annex I and for species listed on Annex II of the Habitats Directive, and criteria listed

under the Birds Directive, and it is these Annex I habitats, Annex II species and Birds Directive Criteria against which assessments under the Habitats Regulations are still made.

Regulation 63 of the Habitats Regulations states that “A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) 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), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site’s conservation objectives.” This process is commonly referred to as Habitats Regulations Assessment (HRA).

2 Habitat Regulations Assessment Methods

2.1 Overview

Habitat Regulations Assessment follows a four-stage process as outlined in the Habitats Regulations Assessment Handbook (DTA, 2019) and summarised in Table 2-1 below.

This report provides evidence to support Stage 1 of the HRA process, to provide the Competent Authority(s) with information to make their assessment.

Table 2-1: The HRA Process

HRA Stage	Description
Stage 1: Screening	This process identifies the likely significant effects upon a European site of a project or plan, either alone or in-combination with other projects or plans and determines whether these impacts are likely to be significant. Following the ECJ judgement in the case of "people over wind" (Case C-323/17). Measures that are necessary to avoid or reduce impacts on the European site, even when considered standard environmental best-practice, can only be assessed at Stage 2. If no likely significant effect is determined, the project or plan can proceed. If a likely significant effect is identified, Stage 2 is commenced.
Stage 2: Appropriate Assessment	Stage 2 is subsequent to the identification of likely significant effects upon a European site in Stage 1. This assessment determines whether a project or plan would have an adverse impact on the integrity of a European site, either alone or in-combination with other projects or plans. This assessment is confined to the effects on the internationally important habitats and species for which the site is designated (i.e., the interest features of the site). Appropriate Assessments, in line with ECJ Case C-461/17 Holohan v An Bord Pleanála, must also consider impacts upon habitats and species within or outside of a site boundary if they support a qualifying feature and could impact upon the conservation objectives of the site. If no adverse impact is determined, the project or plan can proceed. If an adverse impact is identified, Stage 3 is commenced.
Stage 3: Assessment where no alternatives and adverse impacts remain	Where a plan or project has been found to have adverse impacts on the integrity of a European site, potential avoidance/mitigation measures or alternative options should be identified. If suitable avoidance/mitigation or alternative options are identified, that result in there being no adverse impacts from the project or plan on European sites, the project or plan can

HRA Stage	Description
	proceed. If no suitable avoidance/mitigation or alternative options are identified, as a rule the project or plan should not proceed. However, in exceptional circumstances, if there is an 'imperative reason of overriding public interest' for the implementation of the project or plan, consideration can be given to proceeding in the absence of alternative solutions. In these cases, compensatory measures will have to be put in place to offset any negative impacts.
Stage 4: Compensatory measures	Stage 4 comprises an assessment of the compensatory measures where, in light of an assessment of imperative reasons of overriding public interest, it is deemed that the project should proceed.

2.2 Guidance

The methodology used for this assessment is based on guidance in The Habitats Regulations Assessment Handbook (DTA, 2019). In addition, the following guidance documents were also consulted:

- European Commission Notice: Managing Natura 2000 sites. The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018)
- UK Government Guidance on the Use of Habitats Regulations Assessment (UK Government, 2019).
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2002)
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (European Communities, 2007)
- The National Planning Policy Framework (NPPF) and National Planning Practice Guidance (NPPG)
- The Planning Inspectorate PINS Note 05/ 2018: Consideration of avoidance and reduction measures in Habitats Regulations Assessment: People over Wind, Peter Sweetman, v Coillte Teoranta (The Planning Inspectorate, 2018)

2.3 HRA Stage 1: Screening Methodology

The principles of 'screening' are applied to a project and its components to allow the assessment stage to focus on those aspects that are most likely to have potentially significant or adverse effects on European sites. Screening aims to determine whether the project will have any 'likely significant effects' on any European site as a result of its implementation. It is intended to be a coarse filter for identifying effects (positive and negative) that may occur, to allow the assessment stage to focus on the most important aspects. A project should be considered 'likely' to have an effect if it is not possible (on the

basis of objective information) to exclude the likelihood that the project could have significant effects on any European site, either alone or in-combination with other plans or projects; an effect will be 'significant' if it could undermine the site's conservation objectives.

Screening can be used to 'screen-out' European sites and project components 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 a project due to the absence of any reasonable impact pathways).

To undertake the screening of Cherry Cobb habitat creation scheme, it is necessary to:

- Identify the European site(s) likely to be affected by the project, reasons for their designation and their conservation objectives.
- Describe the project and identify the potential impact pathways/effects on the European site(s).
- Identify any other plans or projects that could act in-combination.
- Assess the significance of these potential impacts pathways/effects on the European site(s).

2.3.1 The Precautionary Principle

If there is uncertainty, and it is not possible, based on the information available, to confidently determine no significant effects on a site then the precautionary principle will be applied, and the project will be subject to an appropriate assessment (HRA Task 2).

2.3.2 Mitigation, Avoidance and Protective Measures

Following the *People over Wind & Sweetman v Coillte Teoranta* Case C-323/17, the assessment does not consider protective, avoidance or mitigation measures for stage 1 Screening. These measures are carried forward and considered as part of the stage 2 Appropriate Assessment.

2.4 HRA Stage 2: Appropriate Assessment Methodology

For those European sites screened into the HRA, it is necessary to undertake an Appropriate Assessment to explore the potential adverse effects on their integrity and develop measures to avoid these effects entirely, or if not possible, to mitigate the impacts sufficiently that effects on the European sites are rendered effectively insignificant.

The stages involved in the Appropriate Assessment are to:

- Explore the reasons for the European designation of the "screened in" European site(s)
- Explore the environmental conditions required to maintain the integrity of the "screened in" European site(s) and become familiar with the current trends in these environmental processes

- Gain a full understanding of the project and its components and consider each within the context of the environmental processes – would the project lead to an impact on any identified process?
- Decide whether the identified impact(s) will lead to an adverse effect on the integrity of the European site(s)
- In reference to ECJ case C-462/17 (Nov 18) Holohan v An Bord Pleanala, the Appropriate Assessment needs to include all typical habitats and species present within and outside of the boundaries of the European site, if they are necessary for the conservation of the habitats and species listed for the protected area.
- Identify other plans and/or projects that might affect the European site(s) in combination with the project and decide if there are any adverse effects that might not result from the project in isolation but will do so in-combination.
- Develop measures to avoid the effect entirely, or if not possible, to mitigate the impact sufficiently such that its effect on the European site is rendered effectively insignificant.

If no adverse effect on site integrity is determined, the project or plan can proceed. If adverse effects cannot be ruled out, Stage 3 is commenced.

2.5 Assumptions and limitations

Information on the works and conditions on site are based on current knowledge at the time of writing.

Cumulative impacts are based on published documentation. If other projects with the potential for cumulative impacts are identified, it may be necessary to re-assess this project.

3 Description of the project

3.1 Site Location

The site is located to the west of Narbeth, adjacent to Black Pool Mill and consists of the riverbank and wall failure at National Grid Reference (NGR) SN 05979 14485. The site sits within the administrative boundary of the PCNPA. The location of the scheme can be seen in Figure 3-1 below.

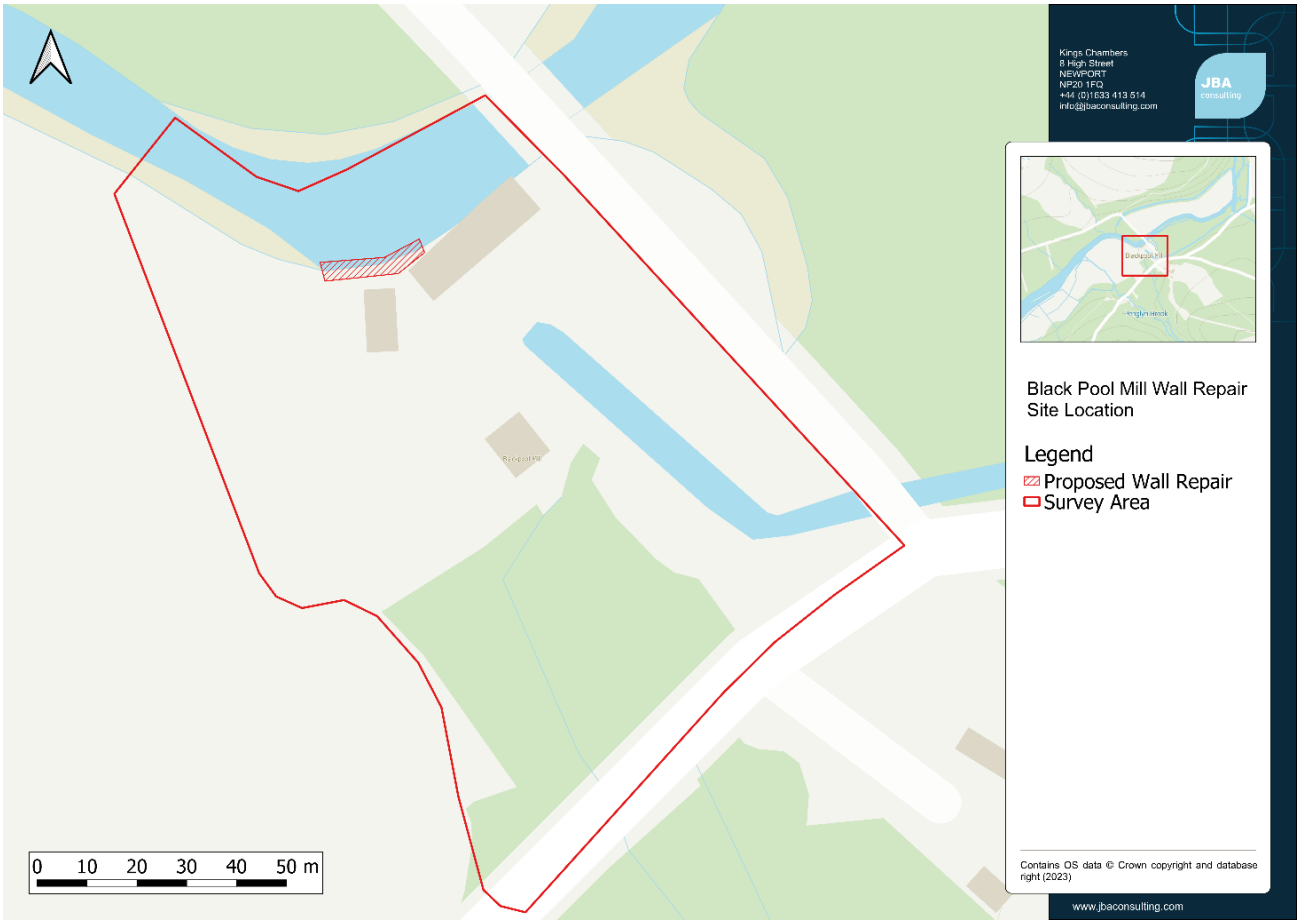


Figure 3-1: Site location

3.2 Proposed works

Bluestone Resorts Ltd commissioned JBA Consulting to undertake the permanent design of a failed masonry wall at Black Pool Mill in Pembrokeshire, Wales, herein called the Mill. The wall failed following flooding of the Cleddau Ddu river on the 25th of October 2023. JBA

Consulting designed emergency works to stabilise the exposed embankment using 48 no. 2T Salix Aqua Rock Bags, constructed in November 2023 as shown on Figure 3-2 below.

Figure 3-2: Emergency repair works to wall failure

Concept design optionneering for the permanent works is shown in the drawing LTU-JBA-XX-XX-PP-C-0001-S3-P01-Concept_Design_Development and described in the Design and Input Statement (JBA Consulting, 2024b). The preferred option is a Redi-Rock modular gravity retaining wall which will replace the existing temporary rock bag wall in Figure 3-2. The works will include minor repairs to adjacent concrete steps and construction of roof drainage outfalls for the adjacent store building.

The proposed construction works will include the following:

- Underpinning of the adjacent store building.
- Removal of existing emergency works (48 no. 2T Salix Aqua Rock Bags).
- Creation of temporary cofferdam using the removed Aqua Rock Bags.
- Installation of new Redi-Rock gravity retaining wall including the foundation and tie in with the Mill.
- Repair/replacement of existing access steps.
- 2 no. roof drainage pipes from the adjacent store building to outfall from the retaining wall.
- 1no. unknown drainage pipe adjacent to the Mill building to outfall from the retaining wall.
- Hard standing area on the repaired bank top.
- Security railings at the crest of the retaining wall.

The retaining wall will be constructed using the Redi-Rock gravity retaining wall modular system with a Cobblestone textured finish.

The top of wall level shall match that of the existing wall pre-failure. The top of wall level shall be 4.4mAOD.

The pedestrian handrail will be installed alongside the access steps leading to the seating area adjacent to the wall. The handrail will be 1m above pitch line of steps and will be designed to match the existing railings in front of the mill.

3.3 Site access for construction

Access to the site will be gained from the A4075 near Canaston Bridge at SN 06956 14835. The access is a narrow country lane that leads directly to the entrance to Black Pool Mill at SN 06056 14414.

The area of modified grassland within the site boundary will be used as site compound throughout the construction phase of the project. This area was previously used for the crane pad during the emergency works.

If the site entrance to Black Pool Mill is impassable for larger vehicles, the adjacent field may be used: materials or similar will be craned over the hedgerow.

4 European sites

4.1 Project Area of Influence and European Sites

Despite the low impact and discrete/temporary nature of the works, the project area of influence was extended to 3km, due to the known presence of highly mobile species at the site including bats, Otter and fish.

The following European sites have been identified within the area of influence, and shown on Figures 4-1 and 4-1 below:

- Pembrokeshire Marine/Sir Benfro Forol SAC (on-site)
- Afonydd Cleddau / Cleddau Rivers SAC (40m upstream)
- Pembrokeshire Bat Sites and Bosherton Lakes SAC (2.9km)

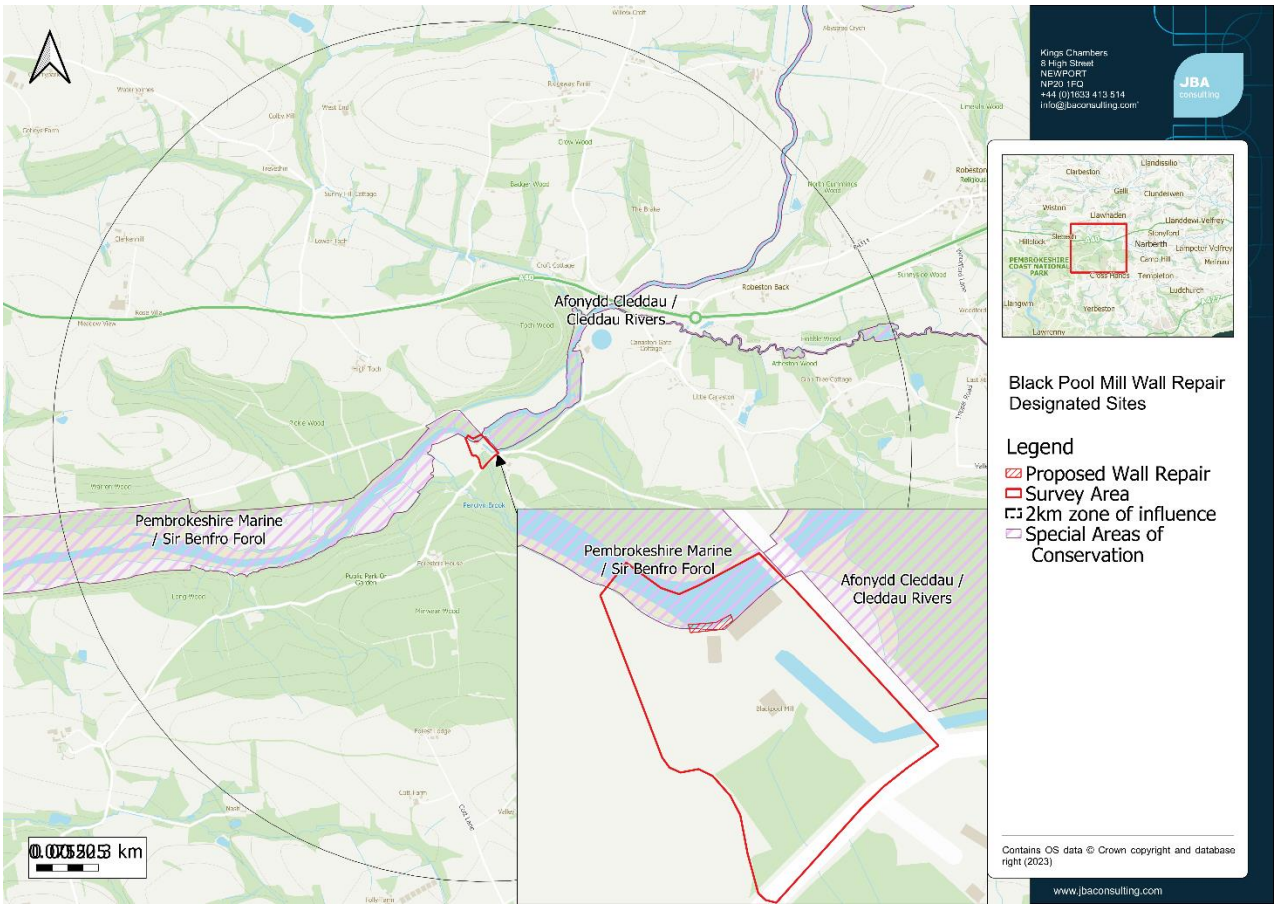


Figure 4-1: Location of site in relation to designated sites

4.2 Pembrokeshire Marine / Sir Benfro SAC

4.2.1 Qualifying Features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I (Natural England, 2014a):

- 1110 -Sandbanks which are slightly covered by sea water all the time
- 1130 - Estuaries
- 1140 - Mudflats and sandflats not covered by seawater at low tide
- 1150 - Coastal lagoons*
- 1160 - Large shallow inlets and bays
- 1170 – Reefs*
- 1330 - Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
- 8330 - Submerged or partially submerged sea caves

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Allis shad *Alosa alosa*
- Twait shad *Alosa fallax*
- Grey seal *Halichoerus grypus*
- European river lamprey *Lampetra fluviatilis*
- Otter *Lutra lutra*
- Sea lamprey *Petromyzon marinus*
- Harbour porpoise *Phocoena Phocoena*
- Shore dock *Rumex rupestris*
- Common bottlenose dolphin *Tursiops truncatus*

4.2.2 Conservation Objectives

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

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

4.3 Afonydd Cleddau/ Cleddau Rivers SAC

4.3.1 Qualifying Features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I (Natural England, 2014a):

- 3260 - Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
- 7110 - Active raised bogs
- 7120 - Degraded raised bogs still capable of natural regeneration
- 91E0 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Allis shad *Alosa alosa*
- European bullhead *Cottus gobio*
- European river lamprey *Lampetra fluviatilis*
- Brook lamprey *Lampetra planeri*
- Otter *Lutra lutra*
- Sea lamprey *Petromyzon marinus*
- Atlantic salmon *Salmo salar*

4.3.2 Conservation Objectives

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

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

4.4 Pembrokeshire Bat Sites and Bosherton Lakes SAC

4.4.1 Qualifying features

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I (Natural England, 2014a):

- 3140 - Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.
- 6210 - Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites)

The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- European bullhead *Cottus gobio*
- Otter *Lutra lutra*
- Greater horseshoe bat *Rhinolophus ferrumequinum*

- Lesser horseshoe bat *Rhinolophus hipposideros*

This SAC is formed of a group of Sites of Special Scientific Interest (SSSI) sites which are scattered across Pembrokeshire. One SSSI sites falls within 3km, the Slebech Stable Yard Loft, Cellars & Tunnels. This site in particular is designated for supporting a one of two known breeding colonies in Wales of greater horseshoe bat. The tunnels have also been used by other bat species for hibernation. Lesser horseshoe bats are the most numerous. Natterer's bats Myotis nattereri hibernate in the tunnel during mid-winter. Lesser horseshoe bats, pipistrelle *Pipistrellus pipistrellus* and brown long-eared bats *Plecotus auritus* have been found in the breeding loft, and whiskered bat *Myotis mystacinus* in the adjacent access loft.

Previous surveys have identified a number Greater Horseshoe Bats and a smaller number of Lesser Horseshoe Bats roosing within Black Pool Mill and a licence to disturb bat species has been obtained for previous refurbishments to Black Pool Mill. As part of this licence monitoring of the bat population is ongoing and data is available throughout the 2023 season and up to January 2024. During this period a number of construction activities have been undertaken at the Mill including the emergency works for the riverbank which these works are seeking to formalise. During this period the population of Greater Horseshoe Bats has shown a steady increase, this potentially indicates that the disturbance has not had a detrimental effect on the population.

5 Screening Assessment

5.1 Introduction

The project is not wholly directly connected with, or necessary to, the conservation management of the site's qualifying features. Therefore, a HRA screening assessment is required.

The following section identifies potential hazards of the proposed works. The effects of relevant hazards are then assessed in relation to each of the relevant qualifying features of the European sites.

The likelihood of potential exposure to the hazard and the mechanism of effect are also identified where possible. This then allows for likely significant effects on the interest features of the designated sites to be identified.

5.2 Potential Hazards to European Sites

The proposed works, as detailed in Section 3, were assessed in order to identify potential hazards that might arise to the relevant interest features of the European sites.

The list of potential hazards to the identified European sites are based on the designated site features and conservation objectives. These are:

- Direct habitat loss
- Noise and visual disturbance
- Water pollution
- Sediment release (temporary during construction)
- Physical damage/mortality

The results of this screening assessment are shown in Table 5-1.

Table 5-1: Assessment of potential hazards upon designated features

Species and Habitat Groups of Designated Features	Potential Hazards						
	Habitat Loss	Noise and visual disturbance	Water pollution	Sediment release	Alteration to coastal processes	Physical damage/ mortality	Competition from, or mortality due to, invasive non-native species (INNS)
Breeding and migratory fish	✓	X	✓	✓	X	✓	X
Lamprey spp.	X	✓	✓	✓	X	X	X
Otter	X	✓	✓	✓	X	X	X
Dolphins, Seals and Porpoises	X	X	X	X	X	X	X
Shore dock	X	X	✓	✓	X	✓	X
Estuaries	X	X	✓	✓	X	X	X
Coastal and Estuary habitats	X	X	✓	✓	X	X	X
Bogs	X	X	✓	✓	X	X	X
Alluvial forests	X	X	✓	✓	X	X	X
Bats	X	✓	X	X	X	X	X
Table key: ✓ = hazard potentially relevant, X = hazard not relevant							

5.3 Assessment of Likely Significant Effects

Assessment of the hazards identified in Table 5-1 was undertaken to determine whether they would be likely to have a significant effect on the relevant qualifying features of the European sites, either alone, or in combination with other plans or projects. The results of the screening assessment are given in Table 5-2. Plans and projects considered for the in-combination assessment are outlined in Section 6.4. Where appropriate, both construction and operational phase effects are considered.

Table 5-2: Screening assessment

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Pembrokeshire Marine/Sir Benfro Forol SAC					
Coastal Habitats:	Direct habitat loss Physical damage Alteration to coastal processes	None of these Annex 1 habitats are present within the site boundary. They are more closely associated with coastal environments of the SAC, whereas the site is located over 10km inland from the coast in the upper reaches of the River Cleddau, which is more fresh water dominated. These habitats are sufficient distance from the site, so that no direct impacts would occur.	No	n/a	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Coastal Habitats	Water pollution Sediment release Competition from, or mortality due to, INNS	These habitats are likely to be present downstream of the works. The repair works are situated in the river channel and have the potential to release pollutants (e.g. through spillages/leaks) or mobilise sediment which could adversely impact on these habitats. The use of a cofferdam will isolate the construction zone and limit the spread of pollution and sediment disturbance to the contained area and will thereby protect surrounding habitats. No INNS were noted during the PEA survey and there are no INNS likely to be introduced or spread which would impact the Annex I habitats. There is therefore negligible risk of spreading or introducing INNS. Industry standard, appropriate pollution prevention, dust management and silt control measures will be implemented, along with biosecurity protocols. These measures are put in place on all construction sites so are not considered to be avoidance or reduction measures for a European site in the context of the Conservation of habitats and species regulations (2019, as amended). These measures will reduce any potential small scale minor impacts to negligible levels. Therefore, there is no likely significant effect from this potential impact pathway. **No likely significant impact**	No	No	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Breeding and migratory fish: Bullhead European river lamprey Brook lamprey Sea lamprey Twaite shad Allis shad	Direct habitat loss	Fish species are protected features of the adjacent designated sites, a number of these were for migratory species that are likely to spawn further up the Cleddau. Whilst the construction phase will result in loss of exploitable water column for the duration of the works, the very limited footprint of the temporary works and dewatered area is highly unlikely to represent a loss of exploitable habitat that results in any discernible impacts on these qualifying features. Similarly, the bed substrates within the footprint of the temporary works and dewatered area are highly unlikely to be of exploitable value (likely being coarse due to being on the outside of the meander bend, and so sub-optimal for all life stages of all these features) and so restricted access to such again unlikely to result in any discernible impacts on these qualifying features. These pressures will not be relevant in the operational phase. **No Likely significant effect**	Yes	No	Yes
Breeding and migratory fish:	Physical damage Water pollution Sediment	During the construction phase, sediment mobilisation and accidental chemical (e.g. fuel or concrete) spills could cause changes in water chemistry and impact both directly and indirectly upon either catadromous features (Bullhead; Brook Lamprey) or those life stages of the anadromous features (shad species; Sea Lamprey; River Lamprey) of the SAC which could be migrating past the works area, in the absence of suitable on-site avoidance and	Yes	No	Yes

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
	release Alteration to coastal processes	mitigation measures. **Likely significant effect**			
Dolphins, Seals and Porpoises *Grey seal Halichoerus grypus* *Harbour porpoise Phocoena Phocoena* *Common bottlenose dolphin Tursiops truncatus*	Habitat loss Physical damage Noise and visual disturbance Alteration to coastal processes	None of these Annex II species are likely to be present within the site boundary. They are more closely associated with coastal environments of the SAC, whereas the site is located over 10km inland from the coast in the upper reaches of the River Cleddau which is more fresh water dominated. These species are likely to be sufficient distance from the site, so that no direct impacts would occur. **No significant impact**	No	n/a	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Otter	Habitat loss Physical damage Alteration to coastal processes	During a PEA conducted at the site in 2016, Otter footprints were identified beneath the Mill's basement bridge, there are also numerous WWBIC records for Otter along the Eastern Cleddau River. The banks of the Eastern Cleddau River and the alluvial woodland on the opposite bank have potential to support Otter holts or resting places, and the scheme area is likely to be used for commuting and foraging by Otters. As Otter are highly mobile species and are known for their ability to build new holts as they adapt to changing conditions, there is a low risk that Otters could build new holts prior to the works taking place. As the proposed works will utilise habitats south of the river adjacent to the woodland and hedgerow, there is a risk of disturbing holts if present in this location. **Likely significant effect**	Yes	.	Yes

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Otter	Noise and visual disturbance	The proposed works are likely to result in temporary noise and disturbance to commuting and foraging Otter. The use of a cofferdam will limit the impact of disturbance to this species by isolating the construction into a contained area. However, the noise and visual disturbance form machinery could have a significant effect on otters utilising the site. There is potential for otters to be disturbed through noise and visual disturbance throughout the duration of the works. **Likely significant effect**	Yes		Yes
Otter	Water pollution Sediment release	The repair works have the potential to release pollutants (e.g. through spillages/leaks) or mobilise sediment which could adversely impact on these species. The use of a cofferdam will isolate the construction zone and limit the spread of pollution and sediment disturbance to the contained area and will thereby protect surrounding habitats. Industry standard, appropriate pollution prevention, dust management and silt control measures will be implemented, along with biosecurity protocols. These measures are put in place on all construction sites so are not considered to be avoidance or reduction measures for a European site in the context of the Conservation of habitats and species regulations (2019, as amended). These measures will reduce any potential small scale minor	No	n/a	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
		impacts to negligible levels. Therefore, there is no likely significant effect from this potential impact pathway. **No likely significant impact**			
Shore dock *Rumex rupestris*	Direct habitat loss	No Shore Dock was recorded on site during the site survey (JBA 2023), and it is believed to be absent from the scheme area. It is only known in two locations within the SAC at 1) Watery Bay; and 2) Hooper's Point as shown on the Figure in Appendix A. The location of the wall repair is unlikely to support this species as it has been recently created as part of emergency repair works and it is unlikely this species would colonise during this short time. **No likely significant impact**	No	n/a	No
Shore Dock	Water pollution Sediment release	Shore dock may be present downstream of the works. The repair works are situated within the river and have the potential to release pollutants (e.g. through spillages/leaks) or mobilise sediment which could adversely impact on these habitats. The use of a cofferdam will isolate the construction zone and limit	No	n/a	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
		the spread of pollution and sediment disturbance to the contained area and will thereby protect surrounding habitats. Industry standard, appropriate pollution prevention, dust management and silt control measures will be implemented, along with biosecurity protocols. These measures are put in place on all construction sites so are not considered to be avoidance or reduction measures for a European site in the context of the Conservation of habitats and species regulations (2019, as amended). These measures will reduce any potential small scale minor impacts to negligible levels. Therefore, there is no likely significant effect from this potential impact pathway. **No likely significant impact**			
Afonydd Cleddau/ Cleddau Rivers SAC					
3260 - Water courses of plain to montane levels with *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	Direct habitat loss Physical damage/mortality Alteration to coastal processes	These Annex I habitat are not present within the site boundary, and the proposed works will not result in any direct habitat loss or damage to this habitat. **No likely significant impact**	No	n/a	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
3260 - Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation Bogs	Water pollution Sediment release	These habitats all have a significant presence in the SAC located 40m upstream. The repair works have the potential to release pollutants (e.g. through spillages/leaks) or mobilise sediment which could adversely impact on these species. The use of a cofferdam will isolate the construction zone and limit the spread of pollution and sediment disturbance to the contained area and will thereby protect surrounding habitats. No INNS were noted during the PEA survey and there are no INNS likely to be introduced or spread which would impact the Annex II species. There is therefore negligible risk of spreading or introducing INNS. Industry standard, appropriate pollution prevention, dust management and silt control measures will be implemented, along with biosecurity protocols. These measures are put in place on all construction sites so are not considered to be avoidance or reduction measures for a European site in the context of the Conservation of habitats and species regulations (2019, as amended). These measures will reduce any potential small scale minor impacts to negligible levels. Therefore, there is no likely significant effect from this potential impact pathway. **No likely significant impact**	No	No	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
91E0 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*	Direct habitat loss Physical damage/mortality Alteration to coastal processes	This habitat is not present within the proposed works area and no habitat loss will occur as a result on the works. However, the woodland present on site and the opposite bank of the river, approximately 20m away likely qualifies as this Annex I habitat. **No Likely significant effect**	No	No	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
91E0 - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*	Water pollution Sediment release	These habitats all have a significant presence in the SAC located 40m upstream. The repair works have the potential to release pollutants (e.g. through spillages/leaks) or mobilise sediment which could adversely impact on these species. The use of a cofferdam will isolate the construction zone and limit the spread of pollution and sediment disturbance to the contained area and will thereby protect surrounding habitats. Industry standard, appropriate pollution prevention, dust management and silt control measures will be implemented, along with biosecurity protocols. These measures are put in place on all construction sites so are not considered to be avoidance or reduction measures for a European site in the context of the Conservation of habitats and species regulations (2019, as amended). These measures will reduce any potential small scale minor impacts to negligible levels. Therefore, there is no likely significant effect from this potential impact pathway. **No likely significant impact**	No	No	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Breeding and migratory fish: Allis shad European bullhead European river lamprey Brook lamprey Sea lamprey Atlantic salmon	Direct habitat loss	Fish species are protected features of the adjacent designated sites, a number of these were for migratory species that are likely to spawn further up the Cleddau. Whilst the construction phase will result in loss of exploitable water column for the duration of the works, the very limited footprint of the temporary works and dewatered area is highly unlikely to represent a loss of exploitable habitat that results in any discernible impacts on these qualifying features. Similarly, the bed substrates within the footprint of the temporary works and dewatered area are highly unlikely to be of exploitable value (likely being coarse due to being on the outside of the meander bend, and so sub-optimal for all life stages of all these features) No likely significant effect	No	No	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Breeding and migratory fish:	Physical damage Water pollution Sediment release	During the construction phase, sediment mobilisation and accidental chemical (e.g. fuel or concrete) spills could cause changes in water chemistry and impact both directly and indirectly upon either catadromous features (Bullhead; Brook Lamprey) or those life stages of the anadromous features (shad species; Sea Lamprey; River Lamprey) of the SAC which could be migrating past the works area, in the absence of suitable on-site avoidance and mitigation measures. **Likely significant effect**	Yes	No	Yes
Otter *Lutra lutra*	Habitat loss Physical damage Alteration to coastal processes	During a PEA conducted at the site in 2016, Otter footprints were identified beneath the Mill's basement bridge, there are also numerous WWBIC records for Otter along the Eastern Cleddau River. The banks of the Eastern Cleddau River and the alluvial woodland on the opposite bank have potential to support Otter holts or resting places, and the scheme area is likely to be used for commuting and foraging by Otters. As Otter are highly mobile species and are known for their ability to build new holts as they adapt to changing conditions, there is a low	Yes	No.	Yes

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
		risk that Otters could build new holts prior to the works taking place. As the proposed works will utilise habitats south of the river adjacent to the woodland and hedgerow, there is a risk of disturbing holts if present in this location. **Likely significant effect**			
Otter	Noise and visual disturbance	The proposed works are likely to result in temporary noise and disturbance to commuting and foraging Otter. The use of a cofferdam will limit the impact of disturbance to this species by isolating the construction into a contained area. However the noise and visual disturbance form machinery could have a significant effect on otters utilising the site. There is potential for otters to be disturbed through noise and visual disturbance throughout the duration of the works. **Likely significant affect**	Yes	No	Yes
Otter	Water pollution Sediment release	The repair works have the potential to release pollutants (e.g. through spillages/leaks) or mobilise sediment which could adversely impact on these species. The use of a cofferdam will isolate the construction zone and limit the spread of pollution and sediment disturbance to the contained area and will thereby protect surrounding habitats. Industry standard, appropriate pollution prevention, dust management and silt control measures will be implemented, along	No	No	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
		with biosecurity protocols. These measures are put in place on all construction sites so are not considered to be avoidance or reduction measures for a European site in the context of the Conservation of habitats and species regulations (2019, as amended). These measures will reduce any potential small scale minor impacts to negligible levels. Therefore, there is no likely significant effect from this potential impact pathway. **No likely significant impact**			
Pembrokeshire Bat Sites and Bosherton Lakes SAC (Slebech Stable Yard Loft, Cellars & Tunnels SSSI Units 3a and 3b)					
Annex I habitats; primary reason for selection					

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
3140 - Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. *6210 - Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites)*	Habitat loss	These habitats are not present within the site boundary and are sufficient distant and disconnected from the site so that no impacts would occur. Oligotrophic waters are found in areas of still water and is associated with the Bosherton Lakes component of this SAC which is located over 10km from the site. Semi-natural dry grasslands of this type are associated with the Stackpole SSSI which is located over 10km from the site. **No likely significant impact**	No	n/a	No
European bullhead		The section of SAC which is likely to support this qualifying species is located at Bosherton Lakes which is over 10km from the site and unlikely to be affected by the proposed works which are low impact and isolated to the small section of riverbank. Therefore, no direct impacts on this feature are envisaged. Appropriate mitigation will be followed in relation to fish species present on site, including European bullhead, as described for the Pembrokeshire Marine/Sir Benfro SAC and Afonyd Cleddau SAC described above.	No	n/a	No

Qualifying Feature	Risk (Pressure)	Likely Significant Effect Alone	Yes or No	Likely Significant Effect in Combination	Yes or No
Bats Greater Horseshoe Bat Lesser Horseshoe Bat	Noise and Visual Disturbance	Previous surveys have identified a number Greater Horseshoe Bats and a smaller number of Lesser Horseshoe Bats roosing within Black Pool Mill. As part of the licence already obtained monitoring of the bat population is ongoing and data is available throughout the 2023 season and up to January 2024. During this period a number of construction activities have been undertaken at the Mill including the emergency works for the riverbank which these works are seeking to formalise. During this period the population of Greater Horseshoe Bats has shown a steady increase, this potentially indicates that the disturbance has not had a detrimental effect on the population. The works will not have a direct impact upon the mill and potential impacts are limited to potential disturbances, the works will involve the placement of rock in the river and will not involve percussive techniques such as piling. Given the above it is considered that the works will not have a significant impact upon the bat populations in the Mill. However, it is recommended that this is continually reviewed as monitoring of the bat roost is ongoing. Surveys will be undertaken immediate before the proposed works to ensure that the situation has not changed. The works will not be carried out at night and no lighting of the building will be required. This will ensure that bats can continue to enter and leave the building undisturbed.	No	No	No

5.4 In combination assessment

A search of the Pembrokeshire Coast National Park Authority Planning Portal (https://planning.agileapplications.co.uk/pcnpa [Accessed: 23/10/2024] was undertaken to identify other plans or projects that could act in-combination with these works. Only applications made within the last 5 years and within 1km of the site were included in the search.

One planning application was identified within 1km which could have in-combination effects with the proposed works. This relates to an application approved in 2020 under the following description:

NP/20/0101/FUL - Change of use of Blackpool Mill from a museum with ancillary shop and café (D1 with ancillary A1/A3 uses) to a heritage restaurant (A3 use) with café and exhibition space in former cottage/forge building (D1/ A3 uses).

However, after assessing the LSE of the proposed works in table 5-2 against this no in-combination effects have been detected. The planning application above was approved in 2020 and the works are now complete. There are no long-term impacts on the qualifying features of the European sites, therefore cumulative affects are considered unlikely.

No other plans were identified that could potentially act in-combination with the proposed works. The remaining planning applications within 1km of each of the sites are all small-scale works that have no direct connection to the site. There are no other Nationally Significant Infrastructure projects within 1km of the site.

5.5 Screening Statement Conclusion

At stage 1 certain effects could not be screened out without appropriate mitigation/ avoidance strategies put in place; consequently, a stage 2 appropriate assessment is required. Those effects requiring appropriate assessment are summarised in Table 5-3 below.

Table 5-3. Summary of screening conclusions for the proposed scheme showing all screened in hazards and European Sites.

Qualifying Feature	Hazard	Likely significant effect alone or in combination
Pembrokeshire Marine/Sir Benfro Forol SAC		
Breeding and migratory fish: Allis shad Twait shad European river lamprey Sea lamprey	Water pollution Sediment disturbance	Alone
Otter	Habitat loss Noise and visual disturbance	Alone
Afonydd Cleddau/ Cleddau Rivers SAC		
Breeding and migratory fish: Allis shad European bullhead European river lamprey Brook lamprey Sea lamprey Atlantic salmon	Water pollution Sediment disturbance	Alone
Otter *Lutra lutra*	Habitat loss Noise and disturbance	Alone

6 Appropriate Assessment

6.1 Introduction

Stage 2 of the HRA process is an Appropriate Assessment, which is required because likely significant effects caused by the proposed works have been identified on the Pembrokeshire Marine/Sir Benfro Forol SAC and Afonydd Cleddau/ Cleddau Rivers SAC.

The Appropriate Assessment determines whether the project will have an adverse impact on the integrity of the European sites. In this assessment, avoidance or mitigation measures are applied to a point where the effects identified are no longer significant. If no significant impact on site integrity can be demonstrated, beyond reasonable scientific doubt, the project can proceed. If sufficient avoidance or mitigation measures cannot be applied, the project should not be taken forward in its current form unless there is a demonstration of no suitable alternatives and there are reasons of overriding public interest.

6.2 General Scheme Mitigation Measures

Appropriate pollution prevention measures will be implemented to ensure that the habitats within proximity of the works, and hydrologically connected to them, including the interest features and supporting habitats of the European sites are not degraded as a result of pollution events during the construction phase. Pollution prevention measures will be agreed with the contractor prior to the commencement of the scheme and will be outlined in a CEMP. Pollution prevention measures will include, but are not limited to:

- Abiding by industry standard pollution prevention guidelines, such as those given in CIRIA Guidance: Control of water pollution from construction sites. Guidance for consultants and contractors (C532D) (Masters-Williams, 2001).
- Any chemical, fuel and oil stores should be located on impervious bases within a secured bud with a storage capacity 110% of the stored volume.
- Biodegradable oils and fuels should be used where possible.
- Drip trays should be placed underneath and standing machinery to prevent pollution by oil/fuel leaks. Where practicable, refuelling of vehicles and machinery should carried out on an impermeable surface in one designated area well away from any watercourse or drainage (at least 10m).
- Emergency spill kits should be available on site and staff trained in their use.
- Operators should check their vehicles daily before starting work to confirm the absence of leakages. Any leakages should be reported immediately.
- Daily checks should be carried out and records kept on a weekly basis and any items that have been repaired/replaced/rejected noted and recorded. Any items of plant machinery found to have been defective should be removed from site immediately or positioned in a place safely until such time that it can be removed.

With appropriate pollution prevention measures put in place the proposed works will not impact upon the integrity of any European sites.

6.3 Appropriate Assessment of Project Impacts and Mitigation

Taking into account the prevailing site conditions, screened in qualifying features, and the typical habitats and species necessary to the conservation of these features, the proposed works and mitigation measures and the conservation objectives for each European site, the following table details the Appropriate Assessment undertaken for the project. In Table 6-2 avoidance and mitigation measures are presented, and an assessment is made on whether an adverse impact remains after the mitigation is applied.

Table 6-1. Appropriate Assessment of Hazards and Mitigation

Qualifying Features	Description of adverse effect(s)	Can adverse effect(s) be mitigated	Description of mitigation measures and how they would be applied	Can adverse effect on site integrity be ruled out
Pembrokeshire Marine/Sir Benfro Forol SAC				
Breeding and migratory fish: Allis shad Twait shad European river lamprey Sea lamprey European bullhead Brook lamprey	Release of polluting material (chemical e.g. fuel, or physical e.g. sediments) that causes direct or indirect harm to resident or transitory life stages or the features of interest	Yes	The works will require only a small coffer dam and will not hinder the ability for fish to migrate though the area. No percussive techniques are proposed. The need for a potential fish rescue has been included in a CEMP that will be approved by NRW fisheries officer before works take place. The works will take place in the period July to end of September (inclusive) when migratory species are unlikely to be encountered. Best practice guidance on pollution prevention and in-channel sediment control measures should be followed during temporary and permanent works construction.	Yes
Otter	Noise and Visual Disturbance	Yes	Although no holts were identified during the PEA survey, Otters are highly mobile and there is potential for holts to be built prior to construction.	Yes

Qualifying Features	Description of adverse effect(s)	Can adverse effect(s) be mitigated	Description of mitigation measures and how they would be applied	Can adverse effect on site integrity be ruled out
			An Otter survey will be undertaken as soon as possible and prior to works taking place to check for signs of Otter and any newly created holts within the site boundary. All light should be fitted with a directional cowl which is directed away from the watercourses, to minimise the risk of disturbance of commuting and or foraging otters. Any excavations during the works will be covered overnight to prevent otters from being trapped along with otter proof fencing around it. There should be suitable silt mitigation and pollution prevention measures installed, which aligns with industry best practice. The works should not result in any in channel barriers for otter migration through the river. A channel should be kept clear for the otters to pass through at all times.	
Afonydd Cleddau/ Cleddau Rivers SAC				

Qualifying Features	Description of adverse effect(s)	Can adverse effect(s) be mitigated	Description of mitigation measures and how they would be applied	Can adverse effect on site integrity be ruled out
Breeding and migratory fish: Allis shad European bullhead European river lamprey Brook lamprey Sea lamprey Atlantic salmon	Direct habitat loss Water pollution Sediment	Yes	The works will require only a small coffer dam and will not hinder the ability for fish to migrate though the area. No percussive techniques are proposed. The need for a potential fish rescue has been included in a CEMP that will be approved by NRW fisheries officer before works take place. The works will take place in the period July to end of September (inclusive) when migratory species are unlikely to be encountered. Best practice guidance on pollution prevention and in-channel sediment control measures should be followed during temporary and permanent works construction.	Yes
Otter			See mitigation for Otter in the above.	

7 Conclusion

The proposed scheme will not have an adverse impact upon the European sites assed within this document either alone or in combination with any other plans or projects, providing the following mitigation measures are implemented, as detailed in Table 6-1:

- Best practise pollution prevention measures will be implemented to ensure that the habitats within proximity of the works, and hydrologically connected to them, including the interest features and supporting habitats of the European sites are not degraded as a result of pollution events during the construction phase.
- The works will be undertaken outside of seasons key to recruitment success of the fish species listed as features of interest; accordingly, the works period should be confined to the period mid-July to end of September (inclusive) or January to February (inclusive).
- An Otter survey will be undertaken as soon as possible and prior to works taking place to check for signs of Otter and any newly created holts within the site boundary.
- Precautionary working practices are followed to limit disturbance to Otter during construction:
    - Any night-time working should be avoided. However, if this is not possible then all light should be fitted with a directional cowl which is directed away from the watercourses, to minimise the risk of disturbance of commuting and or foraging otters.
    - Any excavations during the works should be covered overnight to prevent otters from being trapped along with otter proof fencing around it.
    - There should be suitable silt mitigation and pollution prevention measures installed, which aligns with industry best practice.
    - The works should not result in any in channel barriers for otter migration through the river. A channel should be kept clear for the otters to pass through at all times.

References

Burton, Sue (2008). Pembrokeshire Marine Special Area of Conservation. Management Scheme. Available at: https://www.pembrokeshiremarinesac.org.uk/wp-content/uploads/2022/04/PMSAC-agreed-ManScheme-2008.pdf [Accessed: 24.10.24].

Countryside Council for Wales (1986). Site of Special Scientific Interest Citation. Slebech Table Yard Loft, Cellars and Tunnels. Available at: https://naturalresources.wales/media/644912/SSSI_0507_Citation_EN0013fce.pdf [Accessed: 24.10.24].

Countryside Council for Wales (2008). Core Management Plan Including Conservation Objectives for Pembrokeshire Bat Sites and Bosherton Lakes SAC (Special Area of Conservation). Available at: https://naturalresources.wales/media/673193/pembs-bat-sites-and-bosh-lakes-english.pdf [Accessed: 24.10.24].

DTA (2019). *The Habitats Regulations Assessment Handbook*. [Online] Available at: https://www.dtapublications.co.uk/handbook/. [Accessed: 24.10.24].

European Commission (2018). *Managing Natural 2000 sites. The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.* [Online] Available at: https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_._nov_2018_endocx.pdf. [accessed 24.10.24].

JBA Consulting (2024a) *Black Pool Mill Wall Repair Preliminary Ecological Appraisal*. JBA Consulting.

JBA Consulting (2024b) *Black Pool Mill Wall Repair Design Input Statement*. JBA Consulting.

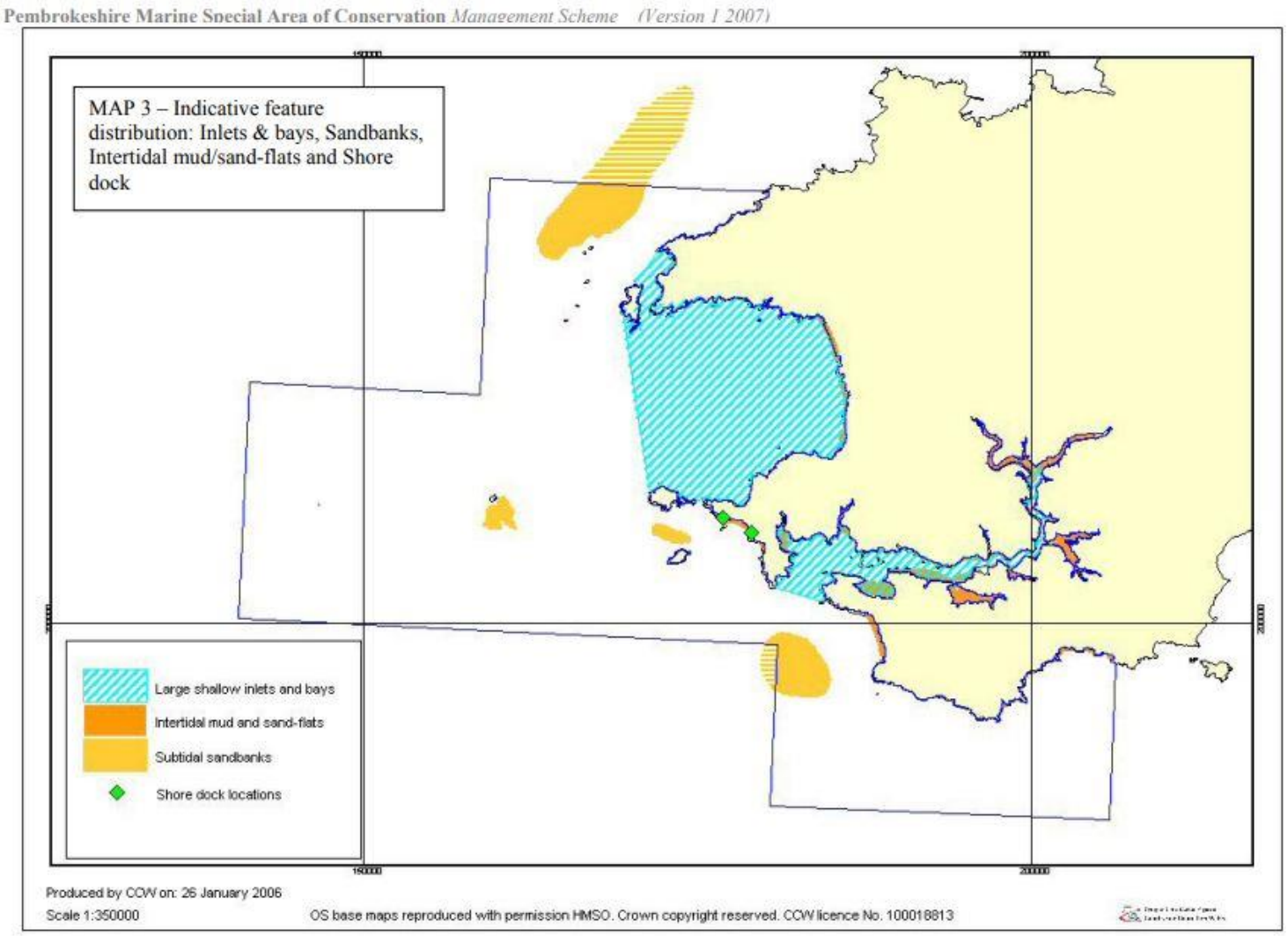
JNCC (2015). *Natura 2000 Standard Data Form (Pembrokeshire Marine / Sir Benfro Foral SAC)*. [Online] Available at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0013116.pdf [Accessed 24.10.24].

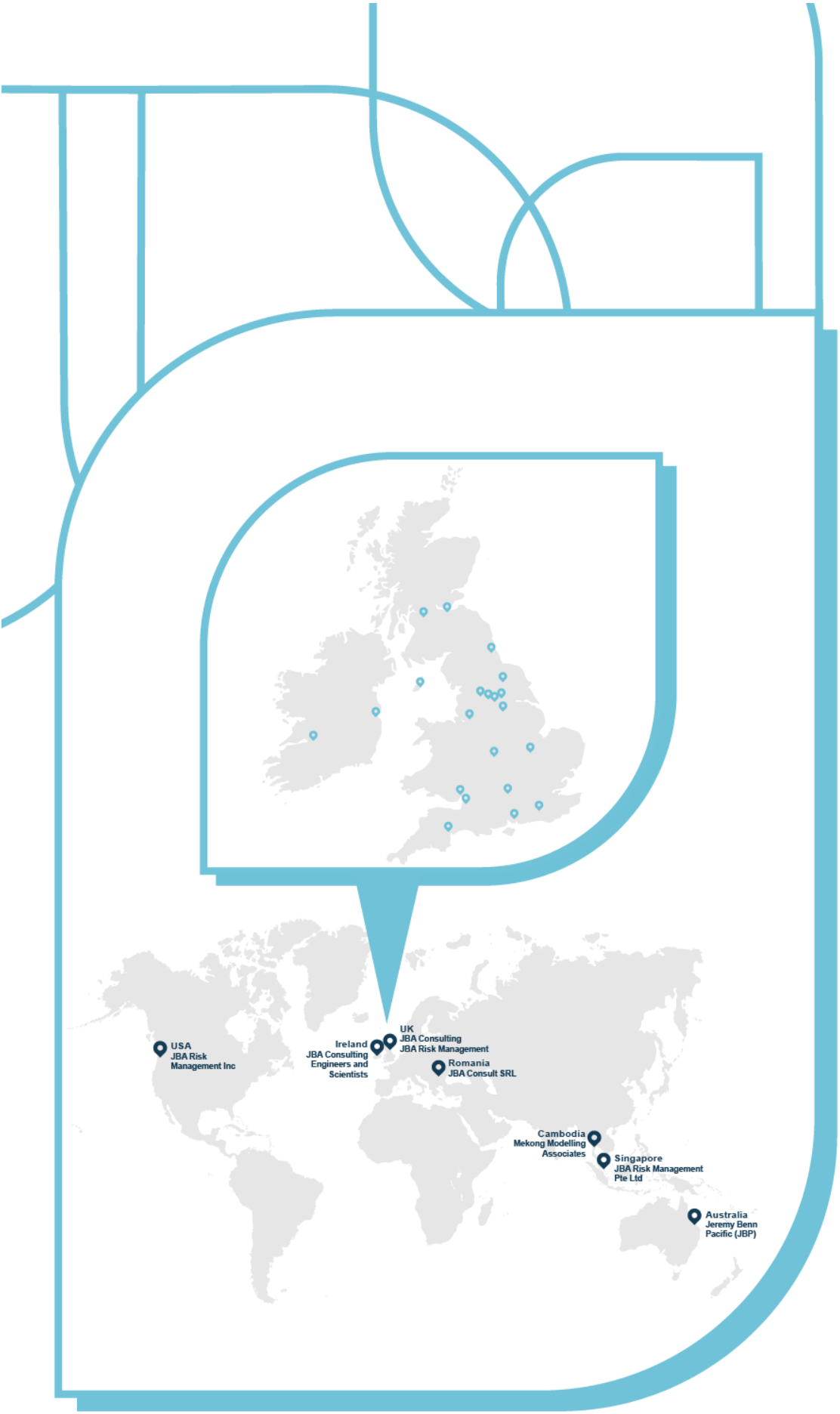
JNCC (2015). *Natura 2000 Standard Data Form (Afonyd Cleddau SAC)*. [Online] Available at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030074.pdf [Accessed 24.10.24].

JNCC (2015). *Natura 2000 Standard Data Form (Pembrokeshire Bat Sites and Bosherton Lakes SAC)*. [Online] Available at: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0014793.pdf [Accessed 24.10.24].

UK Government (2019) G*uidance on the Use of Habitats Regulations Assessment* [Online] Available at: https://www.gov.uk/guidance/appropriate-assessment. Available at: https://www.gov.uk/guidance/appropriate-assessment [Accessed: 24.10.24].

A Appendix


Pembrokeshire Marine Special Area of Conservation Management Scheme (Version 1 2007)
MAP 3 – Indicative feature distribution: Inlets & bays, Sandbanks, Intertidal mud/sand-flats and Shore dock
Large shallow inlets and bays
Intertidal mud and sand-flats
Subtidal sandbanks
Shore dock locations
Produced by CCW on: 26 January 2006
Scale 1:350000
OS base maps reproduced with permission HMSO. Crown copyright reserved. CCW licence No. 100018813



JBA consulting

Offices at

Bristol
Coleshill
Doncaster
Dublin
Edinburgh
Exeter
Glasgow
Haywards Heath
Isle of Man
Leeds
Limerick
Newcastle upon Tyne
Newport
Peterborough
Portsmouth
Saltaire
Skipton
Tadcaster
Thirsk
Wallingford
Warrington

Registered Office
1 Broughton Park
Old Lane North
Broughton
SKIPTON
North Yorkshire
BD23 3FD
United Kingdom

+44(0)1756 799919
info@jbaconsulting.com
www.jbaconsulting.com
Follow us:

Jeremy Benn Associates Limited
Registered in England
3246693

JBA Group Ltd is certified to:
ISO 9001:2015
ISO 14001:2015
ISO 27001:2013
ISO 45001:2018

CHAS Accredited Contractor CHAS.co.uk
IEMA
CYBER ESSENTIALS CERTIFIED
CIEEM REGISTERED
ARMED FORCES COVENANT
MEMBER OF The 5% Club