



Holyhead Ferry Terminal – Salt Island Bridge Replacement

Habitats Regulations Assessment (HRA)

CPF 15008

0.02



Document Control Sheet

Document Title:	Habitats Regulations Assessment (HRA)
Document Author(s):	Charlotte Kersey
Project Ref / Title:	CPF 15008: Holyhead Ferry Terminal- Salt Island Bridge Replacement
Project Manager:	David Harries

Revision History

Date	Version No.	Summary of Changes
09/05/2025	0.01	Version 1
17/06/2025	0.02	Review update
	0.03	Approval

Reviews

Name	Title	Date	Version
Nancy Wilkinson	Senior Environment Officer (Ecology)	10/06/2025	0.01

Approvals

Name	Title	Date	Version
David Harries	Principal Ecologist	17/06/2024	0.02

Distribution

Name	Title	Date	Version

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ISO9001:2015
FS526386



ISO14001:2015
EMS 526388



ISO45001
OHS 526389

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List of Abbreviations

AA	Appropriate Assessment
AIES	Assessment of Implications on European Sites
cSAC	Candidate Special Area of Conservation
EMS	European Marine Site
ES	Environmental Statement
FCS	Favourable conservation status
HRA	Habitats Regulations Assessment
IEEM	Institute of Ecology and Environmental Management
IROPI	Imperative Reasons of Over-riding Public Interest
JNCC	Joint Nature Conservation Committee
LSE	Likely Significant Effect
OMS	Offshore Marine Site
PEU	Plainly Established and Uncontroversial
PPG	Pollution Prevention Guideline
pRamsar	Possible Ramsar Site
pSAC	Possible Special Area of Conservation

pSPA	Potential Special Protection Area
SAC	Special Area of Conservation
SPA	Special Protection Area

Executive Summary

This report comprises a Habitats Regulations Assessment (HRA) for works required to replace a like for like bridge that acts as the main link between the two main areas of the Port of Holyhead and Salt Island with all traffic traversing through to reach the ferry berthing area for T3 and T5. (SH 25069 82953).

The bridge is split into sections:

- Causeway South – this is the most recently constructed section of the bridge. It is thought to have been constructed in 1985. The bridge is constructed of reinforced longitudinal concrete beams that span between the abutments. It is assumed that all these beams are of the same dimensions. This section is currently used to manage all live traffic for access /egress to Salt Island.
- North Section – this is made up of 2 parts with different construction methodologies as follows:
 - a. Causeway North East- This area has been constructed using jack arch methodology and is believed that it was constructed in 1850. It is made of steel transverse girders located on top of the main steel support beams. Between the transverse girders brick arches have been installed, with the running deck located above the arches. It is not clear what material was used to backfill between the running deck and the brick arches.
 - b. Causeway North West-This area of is made of concrete beams resting on the 1850 steel beams. The concrete beams appear to have been poured in situ rather than prefabricated and lifted into place and are thought to have been installed in 1985.

An HRA is an assessment of impacts on European protected sites of importance for nature conservation.

Following a Screening assessment, the first stage of the HRA identified that there would be ‘Likely Significant Effects’ for the Anglesey Terns / Morwenoliaid Ynys Môn SPA and the North Anglesey Marine / Gogledd Mon Forol SAC. Therefore, the assessment progressed to Stage 2 ‘Appropriate Assessment’ stage, which considered the potential for the works to have an adverse effect on the integrity of the sites, taking proposed mitigation measures into account. It should be noted that the information included in this report relating to Stage 2 forms a Statement to Inform an Appropriate Assessment (SIAA), as the Appropriate Assessment itself will be made by the Competent Authority.

The assessment found that although the proposed works could result in potential construction-derived pollution, and potential disturbance of mobile species features, the risk of a significant effect was fairly low due to the size, scale and location of the proposals. Furthermore, with the application of mitigation measures, the risk could be reduced to an extent that there would be no adverse effect on the integrity of either the Anglesey Terns / Morwenoliaid Ynys Môn SPA or the North Anglesey Marine / Gogledd Mon Forol SAC.

1.0 INTRODUCTION

During the 2024 Principle Bridge Inspections (PBI), the Salt Island Bridge was in very poor condition, with high levels of corrosion on the metal works and damage to the concrete. The PBI concluded that based on the bridge's current condition it was not possible to provide adequate use for cars/HGV's and abnormal loads. Therefore, it was recommended that the bridge usage be reduced to limit load until a solution could be developed, so traffic is being redirected over the bridge directly adjacent to this bridge with the use of traffic lights.

Installation of replacement bridge

The existing bridge will need to be demolished prior to any installation works.

The demolition plan must take into account:

- 1) Diversion of the 11kV power cables.
- 2) Diversion of the water mains that cross the bridge.
- 3) Protection of any other services that cross the bridge.
- 4) Protection of the Cyclamen monitoring system, located on the eastern side of the bridge.
- 5) Management of the Smartgate vehicle monitoring portal (this may need to be removed in order to carry out these works)
- 6) Working within a marine environment, although no direct works are planned within a marine environment, beneath the bridge there is a culvert that is tidal.

The purpose of this HRA is to assess the impact of the works on sites of international importance for biodiversity.



Figure 1. West end of the bridge to Salt Island taken from the north side.

1.1 Authors

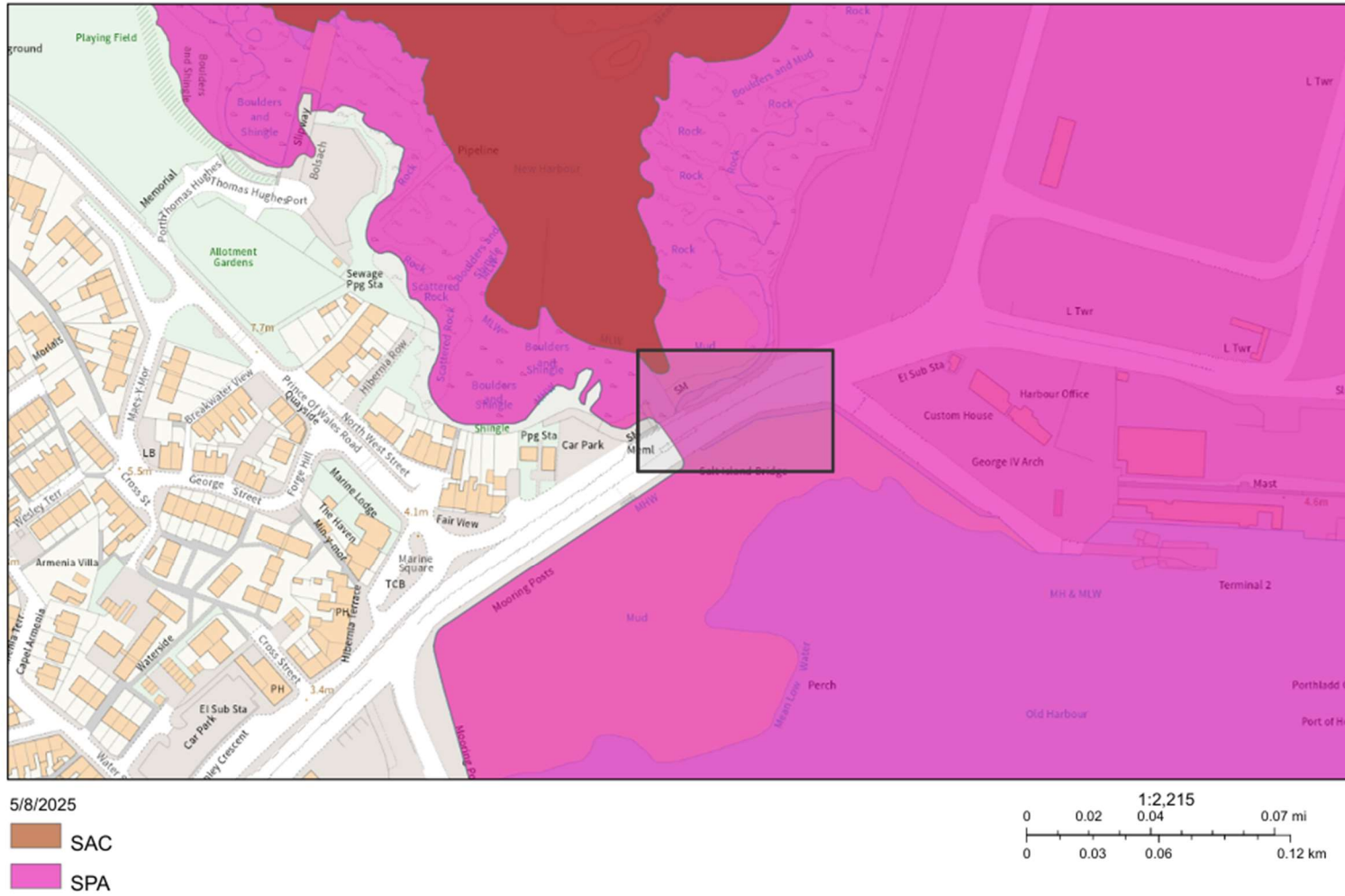
This HRA has been prepared by:

- Charlotte Kersey, MZool AIEEMA, an Environment Officer; and
- Nancy Wilkinson, BSc PGDIP MCIEEM, Senior Environment Officer (Ecology) with 16 years consultancy experience including numerous HRAs and ECIAs for small to large schemes.

[illegible]

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Map Gwynedd



Cyngor Gwynedd 07/05/2025
Cyngor Gwynedd

Figure 4. Location plan of the proposed bridge replacement (black square) in relation to surrounding European Designated sites located at or immediately adjacent to the proposed works area (Anglesey Terns / Morwenoliaid Ynys Môn SPA (pink shading) and North Anglesey Marine / Gogledd Môn Forol SAC (brown shading)).

1.2 European Sites and Ramsars

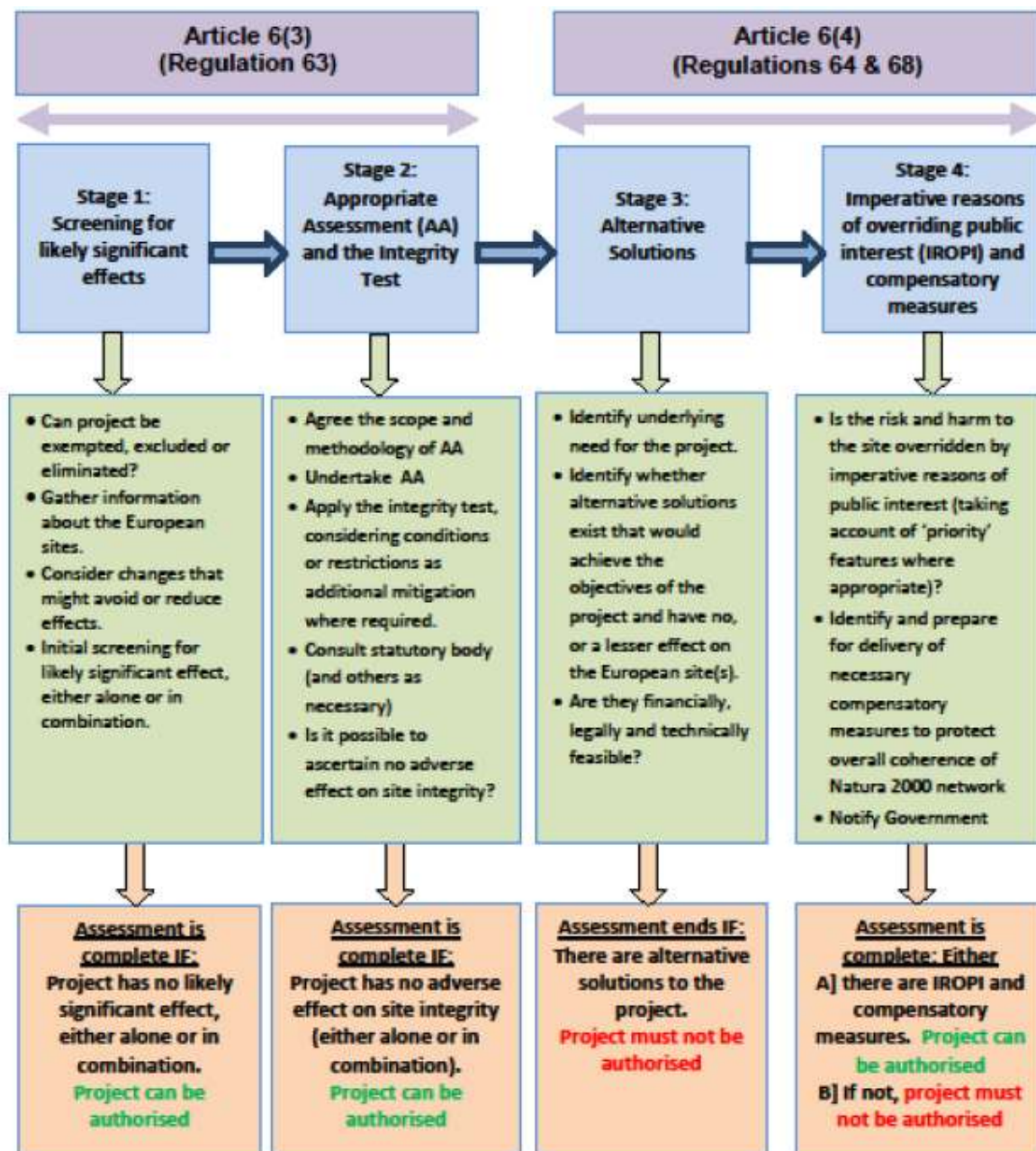
The EU Habitats Directive requires competent authorities to assess the impacts of plans and projects on the Natura 2000 network of protected sites, including Special Protection Areas (SPAs) and Special Areas of Conservation (SACs). In England and Wales, the Directive is implemented by the Conservation of Habitats and Species and Planning (Various Amendments) (England and Wales) Regulations 2017 (the 'Habitats Regulations'). These set out the requirement for a Habitats Regulations Assessment (HRA) where necessary, comprising a series of mandatory tests.

According to Government policy and advice, 'Wetlands of International Importance' or Ramsar sites, although not subject to the Habitats Regulations, should be treated within the planning system in the same way as SACs and SPAs (or 'European sites'). The same level of protection is also given to potential or proposed sites (i.e. pSPA, pSAC and pRamsar), which have not yet been formally designated.

HRA asks specific, mandatory questions of development projects. Firstly, a pre-screening process establishes whether a project can be exempted, excluded or eliminated, either because it is directly connected with the conservation management of the protected site, or it doesn't qualify as a 'project' (within the meaning and scope of the Habitats Directive), or because it couldn't conceivably affect any protected sites. If it cannot be discounted for these reasons, it has to undergo a process involving the four stages outlined in Table 1 and Figure 5 below.

Table 1: Summary of the four-stage HRA process

Stage	Test	Task
1	Screening	If the project cannot be excluded from the process (pre-screening), this stage determines if the project will lead to a 'likely significant effect' on a European site alone or in-combination with other plans or projects. This stage uses a very precautionary approach, without consideration of mitigation measures. This stage involves gathering information about the protected sites but is not a detailed analysis of the impacts.
2	Appropriate Assessment and Integrity Test	If 'likely significant effects' cannot be ruled out, a more thorough 'appropriate assessment' must be carried out to assess whether it is possible to ascertain whether the project will have an 'adverse effect on the integrity of the site' (AEIOI) or not. Mitigation can be considered at this stage but not before.
3	Alternative Solutions	If 'AEIOI' cannot be ruled out, the HRA must explore whether less damaging 'alternative solutions' could deliver the overall objective of the project.
4	Imperative Reasons of Over-riding Public Interest (IROPI) and Compensation	If no alternative solutions exist, the project can only proceed if 'IROPI' apply and 'compensatory measures' must be delivered before consent can be granted.



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Figure 5: Outline of the four-stage approach to the Habitats Regulations Assessment of projects.

1.3 The HRA of Projects

The first stage is to screen the project to identify if it may result in a likely significant effect, whether alone or in-combination with other plans or projects. Provided that these significant effects can be ruled out, then no further assessment is needed. Following recent case law (*People over Wind*, 2017), mitigation cannot be taken into consideration at this stage.

If likely significant effects cannot be ruled out, then the project will proceed to the 'Appropriate Assessment' stage which explores the impacts in terms of the site's conservation objectives. This is to identify whether it can be ascertained that *it will not adversely affect the integrity of the European site*. It is only at this stage that mitigation measures can be considered or imposed (such as changes to design or timing of works). If the Appropriate Assessment can rule out any adverse effects on the integrity of the European site (with or without mitigation), the project may then be consented.

If adverse effects cannot be ruled out, then the assessment progresses to stages three and four and specific derogations may be sought. These determine whether alternative solutions exist and if not, whether imperative reasons of overriding public interest apply and if so, whether compensation is feasible. It should be noted that use of the derogations is regarded as a last resort and should be considered only in exceptional circumstances. The majority of projects are resolved during stages 1 and 2 of the HRA process, as few would manage to pass the strict tests of stages 3 and 4.

This HRA uses guidance provided by the Habitats Regulations Assessment Handbook (DTA, 2013, latest online edition), which draws on best practice and case law from the UK and across the EU to inform best practice. The definitions of HRA terminology used in the assessment can be found in the HRA Handbook.

This document contains information for Stage 1 (Screening) - Test of Likely Significant Effects and information to inform Stage 2: Appropriate Assessment – the consideration of the impact of the project on the integrity of the internationally protected sites, either alone or in combination with other projects or plans.

Extent of knowledge, use of professional judgement and the precautionary principal of professional judgment have been used in the gathering of data and in the interpretation of results gained in relation to the potential impacts, mitigation and significance of any residual impacts, and consideration against conservation objectives. If information is unknown about a potential impact on a site feature, then the precautionary principal has been used.

Definitions, Evidence and Case Law

Stage One – Screening

In the context of a likely significant effect, 'likely' means a possible (or the risk of a) significant effect whose occurrence cannot be excluded on the basis of objective information. 'Significant' means if it is likely to undermine the conservation objectives of a European / internationally important site. 'Objective information' can be defined as a clear verifiable fact rather than a subjective opinion and when carrying out a screening assessment, it is not that significant effects are probable, it is that a risk is 'sufficient'. However, there must be credible evidence that there is a 'real', rather than a 'hypothetical' risk.

An 'in-combination' assessment is only required when an impact is identified as having an insignificant effect on its own (but residual effects remain) that may become significant when taken into consideration with other plans or projects. This type of assessment is only required during the screening stage, although it can be difficult to distinguish between likely significant effects when considered alone or in-combination. Additionally, the rather coarse nature of the screening stage can sometimes preclude or compromise the necessary analysis and an incorrect choice can sometimes prompt extensive and unnecessary work, which is a limitation of this process. Therefore, unless the issues at the screening

stage are clear, this HRA assumes that all likely significant effects apply alone with no residual effects. This will ensure all possible effects are considered and assessed for more thorough analysis in the appropriate assessment if required.

Stage Two – Appropriate Assessment and the Integrity Test

Regulation 63 states that where a plan is ‘likely to have a significant effect’, it can only be consented if the competent authority can ascertain that it ‘will not adversely affect the integrity of the European site.’ An Appropriate Assessment is defined as “the consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site’s structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts”.

The ‘integrity’ of a European site is defined as:

‘the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified or listed.’

The European Commission defined it more recently as follows:

‘The integrity of the site involves its constitutive characteristics and ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the habitats and species for which the site has been designated and the site’s conservation objectives.’

As the HRA process is an iterative process, further scrutiny during the Appropriate Assessment will inevitably confirm or challenge the outcomes of the screening exercise. As a result, this may result in changes such as the identification of new or removal of existing effects, or the need for an in-combination screening assessment.

In accordance with the principles of the mitigation hierarchy, if mitigation measures are able to remove an adverse effect, the measure should be adopted regardless of the cost or difficulty.

Favourable Conservation Status

The aim of the Habitats Directive is to maintain or restore the habitats and species (or qualifying features) listed in Annex I and Annex II respectively, to favourable conservation status (FCS) to ensure their long-term survival is secured across their natural range within the EU. This is described in Articles 1(e) and 1 (i) of the Directive as follows:

The conservation status of a natural habitat will be taken as favourable when:

- *Its natural range and areas it covers within that range are stable or increasing;*
- *The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and*
- *The conservation status of its typical species is favourable as defined in (i);*

[and]

The conservation status of a species will be taken as favourable when:

- *Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;*
- *The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and*
- *There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.*

These targets may apply across several member states but are delivered by site-based conservation objectives. Site-based conservation objectives can be defined as *‘a set of specified objectives to be met in a site in order to make sure that the site contributes in the best possible way to achieving FCS at the appropriate level (taking into account the natural range of the respective species or habitat types)’*.

Priority features

Some of the qualifying features of the Natura 2000 European sites are listed as ‘Priority features’. These are treated in the same way as the other features during Stages 1 and 2 of an HRA, but at Stage 4, Imperative reasons for overriding public interest (IROPI) are restricted to those relating to human health, public safety or beneficial effects on the environment if priority features would or could be adversely affected by a plan or project. In other words, IROPI of a social or economic nature alone cannot be considered sufficient reasons for impacts on ‘priority features’ when assessing the derogations (Stages 3 and 4 of HRA).

Mitigation and case law

The ‘People Over Wind’ case provided a new interpretation of when and how mitigation measures should be considered in an HRA. In 2017, the European Court of Justice departed from previous decisions, clearly identifying that measures specifically designed to avoid or reduce likely significant effects should not be evaluated at the screening stage and should be reserved for the Appropriate Assessment stage.

Role of the competent authority

It is the competent authority’s responsibility to decide whether or not to adopt this assessment as part of their duty under the Habitats Regulations.

2.0 THE NEED FOR ASSESSMENT AND IDENTIFYING EUROPEAN SITES AT RISK

2.1 Exclusion, Elimination and Exemption from the Need for Assessment

Prior to the identification of vulnerable European sites, Stage 1 of the HRA process encourages a brief 'pre-screening' exercise to determine whether there is actually a need for an HRA. It decides whether a proposed development can be:

- **Exempted** from the HRA because it is '... directly connected with or necessary for the management of the ... European site';
- **Excluded** from the HRA because 'it is not a project within the meaning and scope of the Habitats Directive'; or
- **Eliminated** from the HRA because it can easily be shown that although 'it is a project ... it could not have any conceivable effect on any European site'.

Following this pre-screening exercise, it is evident that the proposed development does in fact represent a project within the meaning and scope of the Habitats Directive with the potential to cause harm to European sites. As a result, it can neither be excluded nor eliminated from the HRA. Additionally the purpose of the project is not directly connected with or necessary to the management of European sites, and so it cannot be made exempt from the HRA process. Therefore, the first steps of the Stage 1 assessment will need to commence by identifying which European sites (and associated features) may be at risk. The identification of these sites is outlined in the section below.

2.2 Identification of European sites at risk

This HRA has adopted a 2km radius from the proposed works to search for European protected sites at risk. This distance is considered to be the maximum extent that a project of this nature and scale could reasonably be expected to generate measurable effects. Using the data from MapGwynedd, the Gwynedd Council GIS database, the sites within this area are listed in Table 2 below and shown in Figure 2, 3 and 4 above.

In some instances, sites require a larger search radius of up to 30km and 25km if they support highly mobile qualifying species features such as lesser horseshoe bats or otters (respectively) that could be affected by the proposed works. However, there are no SACs designated for Lesser Horseshoe bats within 30km and no SACs designated for otters within 25km.

Table 2. European sites within 2km of the proposed works (or further if mobile species features could be affected)

European Site	Qualifying Features	Distance
Anglesey Terns / Morwenoliaid Ynys Môn SPA	• Breeding population of Arctic tern, <i>Sterna paradisae</i> • Breeding population of common tern, <i>Sterna hirundo</i> • Breeding population of roseate tern, <i>Sterna dougallii</i>	Directly under on the bridge.

	• Breeding population of sandwich tern, <i>Sterna sandvicensis</i>	
North Anglesey Marine / Gogledd Môn Forol SAC	• Harbour porpoise, <i>Phocoena phocoena</i>	20m to the north-west.
Glannau Ynys Gybi / Holy Island Coast SAC	• Vegetated sea cliffs of the Atlantic and Baltic coasts • Northern Atlantic wet heaths with <i>Erica tetralix</i> • European dry heaths • Reefs • Submerged or partially submerged sea caves • Atlantic grey seal, <i>Halichoerus grypus</i>	1.7km to the north-west and 1.7km to the south-west at the closest points.
Glannau Ynys Gybi / Holy Island Coast SPA	• Chough, <i>Pyrrhocorax pyrrhocorax</i>	1.7km to the north-west and 1.7km to the south-west at the closest points.

The presence of a site on the list in Table 2 doesn't in itself justify its inclusion in subsequent stages of the HRA process, as this depends on the characteristics of the site and the possible impact pathways between the two. Therefore, to encourage a consistent, reliable and repeatable process, the HRA Handbook identifies 22 generic criteria (including sub-criteria) to focus the assessment on relevant sites only, as shown in full in Appendix A. If no European sites are identified in the final column of this table then none will be considered to be at risk and no further scrutiny is needed. In practice, this process can alter the area of search by expanding it (for instance in the case of riverine sites) or shrinking it where the evidence demands that harmful effects are unlikely.

Importantly, although the outcomes of the site identification task will reflect the type and location of the proposed development, and/or the ecological characteristics of the European sites, it does not represent the test for likely significant effect (which follows later).

Of the 22 criteria listed, four were considered to be a credible threat to European sites in the area and are presented in Table 3 below. The full scanning and site selection list may be found in the Table in Appendix A. The results of this exercise are provided in Table 3 below, with columns 2 and 3 omitted from the full table. The remaining criteria have been removed from any further consideration in this HRA as they are not relevant to the proposed works.

Table 3. Scanning and site selection list for European sites that could potentially be at risk from the proposed works

Types of project (or potential effects)	Sites to scan for and check (and additional context)	List of European sites potentially at risk
(1)All projects (terrestrial, marine, coastal) within which the project is wholly or partially located	This criterion identifies all the European sites within the footprint of the scheme.	Anglesey Terns / Morwenoliaid Ynys Môn SPA
(3) Projects that could affect the marine environment	Due to hydrological links from the project site, being located directly above the Anglesey Terns / Morwenoliaid Ynys Môn SPA and 20m southeast of the North Anglesey Marine / Gogledd Môn Forol SAC, it is possible that there could be sedimentation and pollution as a result of the works to replace the bridge, including noise pollution, that could affect marine species features such as harbour porpoise (feature of the North Anglesey Marine SAC), prey availability or disturbance of foraging terns (features of the Anglesey Terns SPA) using marine habitat nearby, or grey seal (mobile species feature of the holy Island Coast SAC located 1.7km to the northwest.	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC

(5) Projects that could affect mobile species	Criterion 5 includes sites whose qualifying features include mobile species that may be affected by the project irrespective of the location of the project or whether the species would be in or out of the site when they might be affected. Mobile species are those considered to spend part of their life-cycle on land, in water or air beyond the designated site boundary. Typically, it focuses on potential impacts on functionally-linked land and water utilised by the birds, mammals and migratory fish associated with the European sites listed. Note that ‘indirect’ effects on mobile species on functionally – linked land or water beyond the development site, are also considered under other criteria 14 and 15 below. The Anglesey Terns / Morwenoliaid Ynys Môn SPA supports a population of four different Terns which will range within and beyond the boundaries of the SPA to feed and commute using the waterways, sky and riparian land to feed, rest and breed. Biodiversity records show the closest record of Common Terns and Sandwich Terns, which are features of the SPA, are located 206m south-west to the proposed works. There is therefore potential for disturbance of foraging terns, but all known nesting sites are located over 10km away from the proposals so it is unlikely that active nests would be disturbed. It is also possible that construction pollution could lead to impacts on prey (fish) species availability. There are no biodiversity records of harbour porpoise (the sole feature of North Anglesey Marine SAC) within 2km of the proposed works but they are likely to utilise the surrounding waters and could be disturbed due to construction noise/vibration during the works. Again, it is also possible that they could be affected by pollution impacts during construction, in addition to possible pollution impacts on prey availability. Similar impacts to those described above could also affect the Atlantic grey seal, a feature of the Holy Island Coast SAC.	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC
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	Therefore, at this stage the potential for harmful effects on the Anglesey Terns / Morwenoliaid Ynys Môn SPA, North Anglesey Marine / Gogledd Môn Forol SAC and the Holy Island Coast / Glannau Ynys Gybi SAC cannot be ruled out and further consideration is required. <i>Note: There is a close link between criterion 5 and criterion 14 below.</i>	
(14) Projects which could introduce or increase, or alter the timing, nature or location of disturbance to species	Biodiversity records show the closest record of Common Terns and Sandwich Terns, which are features of the Anglesey Terns SPA, are located 206m south-west of the proposed works. This suggests terns may be present and moving through the area of works and could be at risk of disturbance from construction. Harbour porpoise, the sole feature of the North Anglesey Marine SAC, could also be subject to disturbance due to noise/vibration during the construction period. Atlantic grey seal, a feature of the Holy Island Coast SAC, could be affected in the same way. Therefore, significant effects on qualifying features of the Anglesey Terns / Morwenoliaid Ynys Môn SPA, North Anglesey Marine / Gogledd Môn Forol SAC and Holy Island Coast / Glannau Ynys Gybi SAC cannot be ruled out at this stage.	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC
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2.3 Initial outcome of site identification exercise

Following the initial high-level preliminary screening exercise provided by Table 3 above and Appendix A (full version including criteria screened out as well as those screened in), the number of potential threats and sites affected is reduced. Despite this, the nature of the criteria results in considerable overlap in some instances, such as in criteria 5 and 14, which can all effectively be represented by 'disturbance of mobile species' and 'disruption/pollution of habitat used by mobile species'. Criteria 3 and 5 effectively represent all threats caused by 'pollution' to both habitat features and habitat used by mobile species features, and any effects arising from Criterion 1 are covered by the other threat categories. These terms will therefore be used in any subsequent assessment, in place of the criteria in Table 3 above.

The outcomes of the site identification exercise are therefore shown in Table 4 below.

Table 4. Summary of potential threat mechanisms and European sites at risk

Potential threat	Relevant Criteria from Table 3	European sites
Pollution of habitat used by species features	1, 3, 5	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC
Disturbance to mobile species features	1, 5, 14	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC

Table 4 above demonstrates that potential impacts on three European sites remain and a formal screening assessment is therefore required.

3.0 SCREENING

3.1 Purpose

The purpose of the screening exercise determines whether or not a plan or project will lead to a 'likely significant effect' or, in other words, whether there is a risk that the proposed works will lead to effects that would 'undermine the conservation objectives' of the site and cannot be 'excluded on the basis of objective information'. An Appropriate Assessment is required when likely significant effects (that are credible and not hypothetical) are identified (or cannot be ruled out).

3.2 Approach

In order to complete the screening stage and identify any likely significant effects on site features, additional information is needed for the site at risk. The screening tables (Tables 5 to 7) below therefore collate additional information for the sites, including a site description and list of qualifying features, and use this to identify any likely significant effects from the proposed works (based on the threats listed in Table 4 above) and the site features potentially affected. The site-specific information provided in these tables has been collated from the Natural Resources Wales (NRW) and JNCC websites. If necessary, more detailed descriptions of the sites will be provided at the Appropriate Assessment stage, including the conservation objectives, but the information in Tables 5 to 7 below is sufficient for the screening stage.

In-depth analysis is not required at the screening stage as it should only operate as a 'trigger' to determine if an Appropriate Assessment is needed. Therefore, detailed examination of each of the conservation objectives of each of the features of the sites will not be undertaken at this stage and is reserved for the Appropriate Assessment stage. Instead, this section only broadly explores whether it is possible that conservation objectives could be undermined and takes into account the risk of a potential significant effect.

As a result of the 'People Over Wind' decision, the screening stage is able to consider the essential features and characteristics of a project but is not able to take bespoke mitigation measures into account. The consideration of all mitigation for this project is therefore reserved for the Appropriate Assessment stage.

Table 5. Screening Assessment for Anglesey Terns / Morwenoliaid Ynys Môn SPA

Anglesey Terns / Morwenoliaid Ynys Môn SPA (101931.08 ha)	UK9013061
<u>Qualifying features</u> 1. <u>Common Tern <i>Sterna hirundo</i></u> 2. <u>Artic Tern <i>Sterna paradisae</i></u> 3. <u>Roseate Tern <i>Sterna dougallii</i></u> 4. <u>Sandwich Tern <i>Sterna sandvicensis</i></u> <u>Description</u> During the breeding season the area regularly supports: Roseate tern <i>Sterna dougallii</i>, 3 pairs representing 5% of the GB breeding population (5 year mean 1992 to 1996); Common tern <i>Sterna hirundo</i>, 189 pairs representing 1.5% of the GB breeding population (5 year mean 1992 to 1996); Arctic tern <i>Sterna paradisae</i>, 1,290 pairs representing 2.9% of the GB breeding population (5 year mean 1992 to 1996); and Sandwich tern <i>Sterna sandvicensis</i>, 460 pairs representing 3.3% of the GB breeding population (5 year mean 1993 to 1997). The site was initially designated as 'Ynys Feurig, Cemlyn Bay and The Skerries SPA', covering only the three areas used by the terns for nesting, as described by the name of the site. However, the site was extended in 2017, to include a much larger marine area incorporating the main foraging areas used by the birds during the nesting season. <u>Potential Threats / Vulnerabilities</u> 1) <i>Pollution of foraging habitat for mobile species features (four species of terns)</i> It is possible that works on site during construction could cause pollution which could contaminate the nearby water environment and affect the Anglesey Terns / Morwenoliaid Ynys Môn SPA, which is located immediately under the bridge. Potential sources of pollution include machinery and equipment, fuel, construction/demolition materials, and suspended solids entering the intertidal area from the bridge above. Without mitigation in place, pollution of the intertidal and marine habitats is a possibility and deterioration in water quality during construction, and subsequent degradation of habitat could potentially impact the tern species due to a temporary reduction of prey availability (fish). <u>Outcome:</u> It is considered that the threat from pollution during construction could potentially undermine the conservation objectives of the SPA features and is therefore included as a likely significant effect. 2) <i>Disturbance to mobile species features (four species of tern)</i> The Anglesey Terns / Morwenoliaid Ynys Môn SPA supports breeding populations of four different tern species which will range within and beyond the boundaries of the SPA to feed and commute using the waterways, sky and riparian land to feed, rest and breed. Biodiversity records show the	

closest record of Common Terns and Sandwich Terns, which are features of the SPA, are located 206m south-west to the proposed works.

There would be some temporary noise pollution and human presence during the construction period, which could potentially cause a low level of disturbance to any terns foraging in the area. The nesting sites for the four tern species are all over 10km away from the proposed works area, so there would be no disturbance of the active nest sites themselves.

Outcome:

Due to the presence of tern records within the area, a likely significant effect of disturbance to tern species features during the course of construction cannot be ruled out.

Summary of Likely Significant Effects and Features requiring Appropriate Assessment

- Pollution of foraging habitat for tern species features; and
- Disturbance of foraging terns.

Table 6. Screening Assessment for North Anglesey Marine / Gogledd Môn Forol SAC

North Anglesey Marine / Gogledd Môn Forol SAC (324949.0 ha)	UK0030398
<u>Qualifying features</u> 1. Harbour porpoise <i>Phocoena phocoena</i> <u>Description</u> Harbour porpoise (<i>Phocoena phocoena</i>) "For which this is considered to be one of the best areas in the United Kingdom".. Water depths between Mean Low Water Tide and 100m. The site has been designated because of its importance to harbour porpoises in the summer months (April to September). <u>Potential Threats / Vulnerabilities</u> 1) <i>Pollution of foraging habitat for the harbour porpoise</i> It is possible that works on site during construction could cause pollution which could contaminate the nearby water environment within the North Anglesey Marine / Gogledd Môn Forol SAC, the boundary of which is located 20m north-west to the bridge at the Mean Low Water mark. Potential sources of pollution include machinery and equipment, fuel, construction/demolition materials, and suspended solids entering the intertidal zone and subsequently the marine environment from the bridge above. Deterioration in water quality during construction, and subsequent degradation of habitat could potentially impact the marine habitat and could result in a temporary reduction of prey availability (fish). <u>Outcome:</u> It is considered that the threat from pollution during construction could potentially undermine the conservation objectives of the SAC feature and is therefore included as a likely significant effect. 2) <i>Disturbance of the harbour porpoise</i> The North Anglesey Marine / Gogledd Môn Forol SAC supports a population of harbour porpoise that will range within and beyond the boundaries of the SAC to feed and commute using the marine habitat to feed, rest and breed. Although there are no Biodiversity records of harbour porpoise within 2km of the site, they may be communicating and foraging around the harbour. According to the 'Conservation Objectives and Advice on Operations' for the site (JNCC, NRW and DAERA, 2019), disturbance of harbour porpoise typically, but not exclusively, originates from operations that cause underwater noise including, as examples, seismic surveys, pile driving and sonar. Disturbance is primarily a behavioural response to noise and may lead to harbour porpoises being displaced from the affected area. The exact methodology of the proposed works is not known at this stage but it is possible that there could be drilling or pile driving, both of which are known sources of disturbance of harbour porpoise, particularly if undertaken underwater.	

Outcome:

Due to the inclusion of the adjacent marine area (from 20m northwest of the works area) within the SAC and the potential for the proposed works to cause a disturbance to harbour porpoise during construction, a significant effect on the SAC cannot be ruled out at this stage.

Summary of Likely Significant Effects and Features requiring Appropriate Assessment

- Pollution of supporting habitat for the mobile species feature (harbour porpoise); and
- Disturbance of mobile species feature (harbour porpoise).

Table 7. Screening Assessment for Holy Island Coast / Glannau Ynys Gybi SAC

Holy Island Coast / Glannau Ynys Gybi SAC (460.01ha)	UK0013046
<u>Qualifying features</u> 1. Vegetated sea cliffs of the Atlantic and Baltic coasts 2. Northern Atlantic wet heaths with <i>Erica tetralix</i> 3. European dry heaths 4. Reefs (present but not a qualifying feature of the site) 5. Submerged or partially submerged sea caves (present but not a qualifying feature of the site) 6. Atlantic grey seal (present but not a qualifying feature of the site) <u>Description</u> The site includes the vegetated sea cliffs around South Stack, supporting several notable plant species. At least 70% of the coastal area is covered by lowland and coastal heathland. Together, the sea cliffs, heathland and associated grassland are of major botanical interest. The flanks of Holyhead Mountain are covered in dry lowland heath represented by a variety of different communities, and also wet heath in the wetter areas. Tre Wilmot is also included within the SAC, a large area of acidic lowland heath overlying a series of rocky ridges and intervening depressions giving rise to a range of heathland vegetation communities. <u>Potential Threats / Vulnerabilities</u> <i>1) Pollution of foraging habitat for Atlantic grey seal</i> It is possible that works on site during construction could cause pollution which could contaminate the nearby water environment outside of but adjacent to the Holy Island Coast SAC. Atlantic grey seal are a mobile species that may occasionally forage within the area in the vicinity of the proposals, and any pollution could lead to temporary reduced prey availability. However, due to the distance from the SAC and the fact that Atlantic grey seal are not a qualifying feature of the SAC, they are not considered further within this assessment, as there is very little likelihood that any impacts on this species would have a significant adverse effect on the integrity of the site (the criteria for consideration at Stage 2 Appropriate Assessment). This is because according to the European Commission's definition (see page 13 of this report), 'The integrity of the site involves its constitutive characteristics and ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the habitats and species for which the site has been designated and the site's conservation objectives.' <u>Outcome:</u> No significant effect. <i>2) Disturbance of Atlantic grey seal</i> It is possible that the construction works associated with the replacement of the bridge could lead to disturbance of Atlantic grey seal, as a mobile species that may occasionally forage in the vicinity of	

the proposed works, even though the boundary of the SAC is 1.7km away. It is very unlikely that grey seal would be breeding in the vicinity of the proposals as they favour secluded beaches or sea caves for breeding and the proposals are located within the very busy port of Holyhead, where a significant level of disturbance (noise, boating activity including ferries, and human presence) is already present. However, due to the distance from the SAC, the existing level of disturbance within Holyhead port and the fact that Atlantic grey seal are not a qualifying feature of the SAC, they are not considered further within this assessment, as there is very little likelihood that any impacts on this species would have a significant adverse effect on the integrity of the site (the criteria for consideration at Stage 2 Appropriate Assessment). This is because according to the European Commission's definition (see page 13 of this report), 'The integrity of the site involves its constitutive characteristics and ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the habitats and species for which the site has been designated and the site's conservation objectives.' In any case, mitigation proposed for pollution and disturbance impacts to harbour porpoise and tern species, would also mitigate any similar impacts to Atlantic grey seal.

Outcome:

No significant effect.

Summary of Likely Significant Effects and Features requiring Appropriate Assessment

- No significant effect is likely for any of the features of the SAC so this site is scoped out of further assessment in this HRA.

Evidence provided in Tables 5 to 7 above allows the likely significant effects to European sites to be broken down into threats to specific features of the sites identified, with some features being screened out of any further assessment. Therefore, Table 8 below summarises the results of this screening exercise, listing the European sites identified as being at risk from the proposed works, the likely significant effects and the features of the site that could be affected.

Table 8. Summary of Screening Exercise

European Site	Likely Significant Effects and Features at Risk	
	<i>Pollution of habitat used by species features</i>	<i>Disturbance of mobile species features</i>
Anglesey Terns / Morwenoliaid Ynys Môn SPA	• <u>Common Tern <i>Sterna hirundo</i></u> • <u>Artic Tern <i>Strena paradisea</i></u> • <u>Roseate Tern <i>Strena dougalli</i></u> • <u>Sandwich Tern <i>Strena sandvicensis</i></u>	• <u>Common Tern <i>Sterna hirundo</i></u> • <u>Artic Tern <i>Strena paradisea</i></u> • <u>Roseate Tern <i>Strena dougalli</i></u> • <u>Sandwich Tern <i>Strena sandvicensis</i></u>
North Anglesey Marine / Gogledd Môn Forol SAC	• <u>Harbour porpoise <i>Phocoena phocoena</i></u>	• <u>Harbour porpoise <i>Phocoena phocoena</i></u>

4.0 FORMAL SCREENING OPINION

The proposed improvement has been screened according to the statutory procedures laid out in the Habitats Regulations 2017 (as amended) using the methodology outlined in the Habitats Regulations Assessment Handbook.

The screening exercise concluded that likely significant effects (LSE) could not be ruled out for the Anglesey Terns / Morwenoliaid Ynys Môn SPA and North Anglesey Marine / Gogledd Môn Forol SAC due to the reasons outlined in Tables 5 and Tables 6 and summarised in Table 8 above. Therefore, an appropriate assessment is required for these likely significant effects.

5.0 APPROPRIATE ASSESSMENT

5.1 Purpose

Where a project is likely to have a significant effect, the precautionary principle emphasises that consent can only be granted if the competent authority can ascertain that the proposed improvement will not adversely affect the integrity of the European site, following an appropriate assessment. This is the purpose of the appropriate assessment stage.

In accordance with the 'People Over Wind' ruling, the appropriate assessment takes any incorporated mitigation measures into account that are sufficient to remove the likely significant effect. Conversely, if mitigation measures are not proposed, or prove to be inadequate, they can be imposed by the competent authority via conditions or other planning tools.

The role of mitigation is different to that of compensation. Mitigation measures aim to avoid, remove or reduce significant effects on European sites, whereas compensation is only considered under the derogations at the later stages of the HRA if required.

The HRA Handbook outlines the definition of integrity in contemporary planning policy and states that for a consent-making body to conclude the absence of an adverse effect, then it should be 'convinced' that no reasonable scientific doubt remains. As defined by the CJEU (Sweetman) and European Commission, the integrity of the site is 'the lasting preservation of the constitutive characteristics of the site'. For further definitions see Section 1.5 above.

5.2 Approach

The screening assessment found that likely significant effects could not be ruled out for species features of the Anglesey Terns / Morwenoliaid Ynys Môn SPA and North Anglesey Marine / Gogledd Môn Forol SAC.

These issues are individually subject to further scrutiny through an appropriate assessment which considers the sites' conservation objectives for the features that have been screened into the assessment (see Table 8 above). Individual effects are assessed with and without mitigation, concluding with an individual Integrity Test for each potential impact, including an assessment of whether any residual effects remain with mitigation in place. A list of the mitigation measures proposed is included in Table 14. If no adverse effect on integrity is recorded but residual effects do remain, an in-combination assessment is likely to be required. If an adverse effect on the integrity of the site remains, the assessment would have to proceed to the derogations, namely stages 3 and 4 of HRA (see Table 1 and Figure 5 in Section 1 above).

Following an in-combination assessment of any residual effects (if required), an overall Formal Integrity Test for the proposed works will be reported.

Information about the qualifying features of the sites has been obtained from the JNCC and NRW websites.

Table 9. Appropriate Assessment for Pollution Impacts

Anglesey Terns / Morwenoliaid Ynys Môn SPA (101931.08 ha)	<u>Features at risk:</u> 1. Common Tern <i>Sterna hirundo</i> 2. Artic Tern <i>Strena paradisea</i> 3. Roseate Tern <i>Strena dougalli</i> 4. Sandwich Tern <i>Strena sandvicensis</i>
North Anglesey Marine / Gogledd Mon Forol SAC (324949ha)	<u>Features at risk:</u> 1. Harbour porpoise <i>Phocoena phocoena</i>
Assessment without mitigation:	
As reported in the screening stage of this HRA, it is possible that the proposed development work, such as the machinery, fuel, and suspended solids arising from construction or demolition activities, could be a source of pollution during construction. Such incidents could cause localised pollution to the marine environment via the intertidal area beneath the bridge, thereby contaminating a small part of the Anglesey Terns SPA and the North Anglesey Marine SAC. There is therefore a risk of pollution causing degradation of marine habitat affecting the species that such habitat supports including the features of these protected sites, namely four species of tern and the harbour porpoise as well as their prey, predominantly consisting of fish species. Unmitigated, any pollution release to the environment could potentially undermine the conservation objectives for the four tern species features of the Anglesey Terns / Morwenoliaid Ynys Môn SPA and the harbour porpoise as a feature of the North Anglesey Marine SAC. The risk of pollution contamination is temporary, for the duration of the construction period only. If a pollution incident were to occur, considering the relatively small scale of the proposals, any incident would likely be small in scale; and there would be a large degree of dilution and dispersion on entering the marine environment. In addition, only a very small part of these large protected sites would be affected and it seems likely that the species features detailed above would only occasionally use the habitat in the vicinity of the proposals for foraging due to the lack of historic records of harbour porpoise within 2km, the distance of over 10km to the tern nesting areas, and the existing disturbance within the port of Holyhead. With this in mind, any effects on the features identified are likely to be minor and short-term.	
<u>Conclusion:</u>	
There is potential for the construction works to affect the marine environment through pollution contamination. This could affect the four tern species features of the Anglesey Terns / Morwenoliaid Ynys Môn SPA as well as the harbour porpoise, a feature of the North Anglesey Marine SAC. Although unlikely, without appropriate mitigation measures in place, it is not possible to rule out adverse effects on the integrity of these sites.	
Assessment with Mitigation:	
Given that adverse effects have been identified, this assessment must consider whether mitigation measures incorporated within the scheme can provide the competent authority with 'certainty' that no reasonable scientific doubt remains as to the absence of an effect upon the integrity of the European site.	

Each of the mitigation measures is considered to cover the criteria identified in the DTA HRA Handbook, namely effectiveness, reliability, timeliness, deliverability, enforcibility and likelihood they will be maintained and persist for however long is necessary. This HRA does not make any distinction between embedded elements of the design that may provide ecological benefits that are secondary to their primary purpose and the bespoke measures specifically designed to avoid, cancel or reduce the impact of the development on site features.

The control of pollution and similar incidents forms a frequent component of most large-scale developments. Consequently, a range of tried and trusted techniques can be adopted to reduce the risk of such events to an acceptably low level or remove them entirely even where sensitive European sites are concerned. This provides a high degree of confidence that they will be successful.

Application of mitigation measures:

Mitigation measures are included in full in Table 15 below, but those involved with reducing or avoiding the potential impact from pollution can be summarised as follows:

- Implementation of a range of measures to ensure working practices and good environmental site management are secured, minimising the risk of pollution or other incidents. These would include the adoption of best practice guidelines including GPP and CIRIA guidance, particularly GPP 5: Works and maintenance in or near water for construction or maintenance works near, in or over water. The mechanism for ensuring the delivery of these would be via a Construction Environmental Management Plan (CEMP) and associated Method Statements for the works, to be agreed in advance with the Authority and Natural Resources Wales where necessary, beforehand. Typical examples would comprise ensuring the use of spill kits and refuelling in designated areas away from the intertidal area and ensuring an Emergency Pollution Response Plan is put in place;
- All materials stored on site shall be located more than 10m away from the intertidal zone at all times;
- Ensure that any fuels or chemicals required for machinery/equipment are safely stored in an appropriately bunded compound/container, at least 10m from the intertidal zone;
- All concrete works will only be undertaken when there is no chance of heavy rain before the concrete has set;
- When undertaking any demolition/removal operation precautions shall be adopted to ensure that any debris is prevented from entering any intertidal or marine habitat. Contractor shall submit a method statement which will be subject to approval from the site supervisor/engineer;
- Pollution spill kits to be readily available on site and in plant/machinery at all times, with staff suitably trained in how to deploy;
- Contractor to adhere to pollution prevention best practice guidelines, including;
 - GPG1: Understanding your environmental responsibilities.
 - GPP5: Works and maintenance in or near water.
 - GPG6: Working at construction and demolition sites.
 - GPP21: Pollution response planning.
 - GPP22: Dealing with spills.
- Plant machinery shall use a biodegradable hydraulic oil;
- No dewatering water from on-site excavations shall be discharged directly to the intertidal zone, and should receive sufficient settlement to settle out all solids before being discharged;
- Tracking of vehicles / machinery within the intertidal habitat must be minimised;

- All works to be supervised by an Environmental Manager or Environmental Clerk of Works, as appropriate;
- Site personnel to follow good practice guidelines and be briefed with a toolbox talk on the ecological issues relevant to the site to ensure they comply with environmental protocols;
- Works to be completed at or around low tide, with all works within the intertidal area taking place within 3 hours either side of low tide to minimise the risk of pollution entering the marine environment;
- Best practical biosecurity measures (check, clean, dry protocol) must be applied during the operations, including cleaning of equipment and footwear before deployment to site.

Conclusion

With these mitigation measures in place it is considered that the risk is reduced to the extent that there would be no adverse effect on the integrity of the Anglesey Terns / Morwenoliaid Ynys Môn SPA or the North Anglesey Marine SAC, with no residual effects on any of the Conservation Objectives of the features of the site.

Table 10. Impact on Conservation Objectives (from Pollution Impacts)

Impact on Conservation Objectives – Anglesey Terns / Morwenoliaid Ynys Môn SPA	
Conservation Objectives for the site	Outcome
For the Arctic tern (<i>Sterna paradisae</i>), sandwich tern (<i>Sterna sandvicensis</i>), roseate tern (<i>Sterna dougalli</i>) and common tern (<i>Sterna hirundo</i>): The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. The distribution of the population should be being maintained, or where appropriate increasing. There should be sufficient habitat, of sufficient quality, to support the population in the long term. Factors affecting the population or its habitat should be under appropriate control.	No adverse effect on integrity; No residual effects
Impact on Conservation Objectives – North Anglesey Marine / Gogledd Môn Forol SAC	
Conservation Objectives for the site	Outcome
For the Harbour porpoise (<i>Phocoena phocoena</i>): To avoid deterioration of the habitats of the harbour porpoise or significant disturbance to the harbour porpoise, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to maintaining Favourable Conservation Status (FCS) for the UK harbour porpoise.	No adverse effect on integrity; No residual effects

To ensure for harbour porpoise that, subject to natural change, the following attributes are maintained or restored in the long term: 1. The species is a viable component of the site. 2. There is no significant disturbance of the species. 3. The supporting habitats and processes relevant to harbour porpoises and their prey are maintained.	
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Table 11. Integrity test (for Pollution Impacts)

Integrity test:	Pollution Impacts: Without mitigation there is a low risk of pollution leading to contamination of the water environment which could impact upon the species features of the Anglesey Terns / Morwenoliaid Ynys Môn SPA and the North Anglesey Marine / Gogledd Mon Forol SAC and could potentially undermine the conservation objectives for these sites. However, when the proposed mitigation measures are taken into account, it is considered that the risk would be reduced sufficiently to consider that there would be no adverse effect on the integrity of the protected site, with no residual effects.
Residual effects / In-combination:	As it is considered that the mitigation measures proposed would reduce the risk to such an extent that there would be no residual effects for the Anglesey Terns / Morwenoliaid Ynys Môn SPA and North Anglesey Marine / Gogledd Mon Forol SAC, there is no need to consider this impact in combination with other plans or projects.

Table 12. Appropriate Assessment for Disturbance of Mobile Species

Anglesey Terns / Morwenoliaid Ynys Môn SPA (101931.08 ha)	<u>Features at risk:</u> 1. <u>Common Tern <i>Sterna hirundo</i></u> 2. <u>Artic Tern <i>Strena paradisea</i></u> 3. <u>Roseate Tern <i>Strena dougalli</i></u> 4. <u>Sandwich Tern <i>Strena sandvicensis</i></u>
North Anglesey Marine / Gogledd Mon Forol SAC (324949ha)	<u>Features at risk:</u> 1. Harbour porpoise <i>Phocoena phocoena</i>
Assessment without mitigation:	
As reported in the screening stage of this HRA, it is possible that the proposed works to replace the bridge to Salt Island could result in noise and vibration that could cause disturbance of foraging individuals of the four tern species and/or harbour porpoise representing qualifying features of the Anglesey Terns SPA and North Anglesey Marine SAC respectively. However, the risk of disturbance of these species is relatively low due to the large distances (over 10km) to each of the tern nesting areas, the existing disturbance associated with the busy port of Holyhead, and the lack of historic records of harbour porpoise within 2km. The increased disturbance would also only be temporary during the construction period, as the bridge is to be replaced on a like for like basis and is not expected to lead to an increase in traffic entering/leaving Salt Island.	
<u>Conclusion</u> Without mitigation in place, there is some potential for the construction/demolition works to cause minor disturbance of foraging terns or harbour porpoise, although it is unlikely that this would lead to an adverse effect on the integrity of the respective protected sites. Mitigation measures have therefore been proposed on a precautionary basis.	
Assessment with Mitigation:	
Each of the mitigation measures is considered to cover the criteria identified in the DTA HRA Handbook, namely effectiveness, reliability, timeliness, deliverability, enforcibility and likelihood they will be maintained and persist for however long is necessary. This HRA does not make any distinction between embedded elements of the design that may provide ecological benefits that are secondary to their primary purpose and the bespoke measures specifically designed to avoid, cancel or reduce the impact of the development on site features.	
<u>Application of mitigation measures:</u> Mitigation measures are included in full in Table 15 below, but those involved with reducing or avoiding the potential impact from disturbance of species features can be summarised as follows: • Works to be completed at or around low tide, with all works within the intertidal area taking place within 3 hours either side of low tide. This will minimise disturbance to any terns foraging within marine habitat and also to any harbour porpoise foraging/commuting	

through the area, as disturbance of this species typically originates from operations that cause underwater noise;

- All works to be supervised by an Environmental Manager or Environmental Clerk of Works, as appropriate; and
- Site personnel to follow good practice guidelines and be briefed with a toolbox talk on the ecological issues relevant to the site to ensure they comply with environmental protocols.

Conclusion

With these mitigation measures in place it is considered that the risk is reduced to the extent that there would be no adverse effect on the integrity of the Anglesey Terns / Morwenoliaid Ynys Môn SPA or the North Anglesey Marine SAC, with no residual effects on any of the Conservation Objectives of the features of the site.

Table 13. Impact on Conservation Objectives (from Disturbance of Mobile Species)

Impact on Conservation Objectives – Anglesey Terns / Morwenoliaid Ynys Môn SPA	
Conservation Objectives for the site	Outcome
For the Arctic tern (<i>Sterna paradisae</i>), sandwich tern (<i>Sterna sandvicensis</i>), roseate tern (<i>Sterna dougalli</i>) and common tern (<i>Sterna hirundo</i>): The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term. The distribution of the population should be being maintained, or where appropriate increasing. There should be sufficient habitat, of sufficient quality, to support the population in the long term. Factors affecting the population or its habitat should be under appropriate control.	No adverse effect on integrity; No residual effects
Impact on Conservation Objectives – North Anglesey Marine / Gogledd Môn Forol SAC	
Conservation Objectives for the site	Outcome
For the Harbour porpoise (<i>Phocoena phocoena</i>): To avoid deterioration of the habitats of the harbour porpoise or significant disturbance to the harbour porpoise, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to maintaining Favourable Conservation Status (FCS) for the UK harbour porpoise. To ensure for harbour porpoise that, subject to natural change, the following attributes are maintained or restored in the long term: 1. The species is a viable component of the site.	No adverse effect on integrity; No residual effects

2. There is no significant disturbance of the species.	
3. The supporting habitats and processes relevant to harbour porpoises and their prey are maintained.	

Table 14. Integrity test (for Disturbance of Mobile Species)

Integrity test:	Disturbance Impacts: Without mitigation there is a low risk of disturbance to foraging individuals of the four tern species features of the Anglesey Terns / Morwenoliaid Ynys Môn SPA and also the harbour porpoise feature of the North Anglesey Marine / Gogledd Mon Forol SAC. The risk is low and is unlikely to represent an adverse effect on the integrity of these protected sites but mitigation is proposed on a precautionary basis. When the proposed mitigation measures are taken into account, it is considered that the risk would be reduced sufficiently to consider that there would be no adverse effect on the integrity of the protected sites, with no residual effects.
Residual effects / In-combination:	As it is considered that the mitigation measures proposed would reduce the risk to such an extent that there would be no residual effects on the Anglesey Terns / Morwenoliaid Ynys Môn SPA or the North Anglesey Marine / Gogledd Mon Forol SAC, there is no need to consider this impact in combination with other plans or projects.

Table 15. Mitigation Measures Proposed to Reduce or Avoid Impacts on European Sites

Mitigation Proposed	Impact Reduced/Avoided	European Site Affected	Site Features Affected
- Implementation of a range of measures to ensure working practices and good environmental site management are secured, minimising the risk of pollution or other incidents. These would include the adoption of best practice guidelines including GPP and CIRIA guidance, particularly GPP 5: Works and maintenance in or near water for construction or maintenance works near, in or over water. The mechanism for ensuring the delivery of these would be via a Construction Environmental Management Plan (CEMP) and associated Method Statements for the works, to be agreed in advance with the Authority and Natural Resources Wales where necessary, beforehand. Typical examples would comprise ensuring the use of spill kits and refuelling in designated areas away from the intertidal area and ensuring an Emergency Pollution Response Plan is put in place; - All materials stored on site shall be located more than 10m away from the intertidal zone at all times; - Ensure that any fuels or chemicals required for machinery/equipment are safely stored in an appropriately bunded compound/container, at least 10m from the intertidal zone; - All concrete works will only be undertaken when there is no chance of heavy rain before the concrete has set; - When undertaking any demolition/removal operation precautions shall be adopted to ensure that any debris is prevented from entering any intertidal or marine habitat. Contractor shall submit a method statement which will be subject to approval from the site supervisor/engineer; - Pollution spill kits to be readily available on site and in plant/machinery at all times, with staff suitably trained in how to deploy; - Contractor to adhere to pollution prevention best practice guidelines, including; - GPG1: Understanding your environmental responsibilities. - GPP5: Works and maintenance in or near water. - GPG6: Working at construction and demolition sites.	Pollution of foraging habitat used by mobile species features	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC	<u>Common Tern</u> <i>Sterna hirundo</i> <u>Artic Tern</u> <i>Strena paradisaea</i> <u>Roseate Tern</u> <i>Strena dougalli</i> <u>Sandwich Tern</u> <i>Strena sandvicensis</i> <u>Harbour porpoise</u> <i>Phocoena phocoena</i>

○ GPP21: Pollution response planning. ○ GPP22: Dealing with spills. • Plant machinery shall use a biodegradable hydraulic oil; • No dewatering water from on-site excavations shall be discharged directly to the intertidal zone, and should receive sufficient settlement to settle out all solids before being discharged; • Tracking of vehicles / machinery within the intertidal habitat must be minimised; • All works to be supervised by an Environmental Manager or Environmental Clerk of Works, as appropriate; • Site personnel to follow good practice guidelines and be briefed with a toolbox talk on the ecological issues relevant to the site to ensure they comply with environmental protocols; • Works to be completed at or around low tide, with all works within the intertidal area taking place within 3 hours either side of low tide to minimise the risk of pollution entering the marine environment; • Best practical biosecurity measures (check, clean, dry protocol) must be applied during the operations, including cleaning of equipment and footwear before deployment to site.			
• Works to be completed at or around low tide, with all works within the intertidal area taking place within 3 hours either side of low tide. This will minimise disturbance to any terns foraging within marine habitat and also to any harbour porpoise foraging/commuting through the area, as disturbance of this species typically originates from operations that cause underwater noise; • All works to be supervised by an Environmental Manager or Environmental Clerk of Works, as appropriate; • Site personnel to follow good practice guidelines and be briefed with a toolbox talk on the ecological issues relevant to the site to ensure they comply with environmental protocols.	Disturbance to mobile species features		

IN-COMBINATION ASSESSMENT

6.1 Purpose

The test for likely significant effect in Regulation 63(1) of the Habitats Regulations is that effects should be assessed 'either alone *or* in combination with other plans or projects'.

For the avoidance of doubt, the Regulations identify that an in-combination assessment is required only during the screening stage and only where an impact is identified which would have an insignificant effect on its own (a 'residual' effect) but where likely significant effect may arise cumulatively with other plans or projects.

Cumulative effects are those which make the effect more likely or more significant. Thus, where likely significant effects can be ruled out alone, there is no need for an assessment in combination because if there is no effect, it cannot add anything to an in-combination or cumulative assessment.

At the screening stage of the assessment, however, it can be difficult to distinguish between likely significant and insignificant effects where the exercise is meant to be brief. This HRA therefore assumes that any credible effect identified is assessed *alone with no residual effects*. This allows all possible effects to be captured for more detailed scrutiny in the appropriate assessment.

Despite this, further scrutiny may modify this opinion and the need for an in-combination assessment may subsequently be required as described in the Handbook:

'...at a later stage when the appropriate assessment concludes that a plan or project screened as having a likely significant effect alone will not, upon further investigation, be likely to have such an effect alone, but could have such an effect in combination. In (this) situation, the appropriate assessment will need to be extended, in order to address in combination effects to inform the integrity test bearing in mind the potential for cumulative effects.'

As a result, in-combination effects are therefore considered in the appropriate assessment, which has two functions. The first function is to consider whether further scrutiny of the appropriate assessment can identify that an effect, previously identified as significant alone, was not of sufficient magnitude to justify this outcome and should have been identified as a residual effect and considered in-combination.

Secondly, it explores if possible residual adverse effects on the integrity of the site that were ruled out alone could lead to a significant adverse effect when considered in-combination. This employs best practice by considering cumulative effects at all stages of the HRA.

As this HRA concluded that the level of risk associated with each of the identified likely significant effects merited appropriate assessment *alone*, there were *no residual effects* and no need for an in-combination assessment. Furthermore, it found that the outcome of the Appropriate Assessment stage was no adverse effect on site integrity with no residual effects for any of the impacts identified. Therefore, there is no need to carry out the additional in-combination assessment of these potential impacts. The individual Integrity Tests for each issue evaluated in the appropriate assessment therefore stand with no need for further scrutiny and can be carried forward into the Formal Integrity Test in Section 7.

7.0 FORMAL INTEGRITY TEST / CONCLUSION

This HRA subjected the potential effects of the proposed works to an appropriate assessment and integrity test in accordance with the statutory procedures laid out in the Habitats Regulations 2017 (as amended) using methodology described in the Habitats Regulations Assessment Handbook (Tyldsley and Chapman, latest online edition). As a result of this assessment, it can be ascertained that:

The assessment found that although the proposed works could result in potential construction-derived pollution affecting foraging habitat of mobile species features, and potential disturbance of the four tern species and harbour porpoise, the risk of an adverse effect on the integrity of the nearby Anglesey Terns / Morwenoliaid Ynys Môn SPA and North Anglesey Marine / Gogledd Môn Forol SAC was fairly low due to the size and scale of the proposals and existing disturbance from Holyhead port. Furthermore, with the application of mitigation measures, the risk could be reduced to an extent that there would be no adverse effect on the integrity of either protected site with no residual effects.

Although this HRA has been prepared to help the Authority discharge its duties under the Habitats Regulations, the Authority remains the competent authority and it must decide whether to adopt the conclusions and recommendations of this report, or otherwise, for the purpose of their own assessment. If accepted, consultation with the statutory nature conservation body is required.

8.0 REFERENCES

Countryside Council for Wales. 2008. *Core Management Plan including Conservation Objectives for Glannau Ynys Gybi Sac & Glannau Ynys Gybi SPA*

European Union. 2019. *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*.

Joint Nature Conservation Committee (JNCC). Updated in 2019. *Harbour porpoise (Phocoena Phocoena) Special Area of Conservation: North Anglesey Marine / Gogledd Môn Forol – Conservation Objectives and Advice on Operations*. [north-anglesey-marine-conservation-objectives-and-advice-on-operations.pdf](#)

Natural Resource Wales (NRW) 2016 [Natural Resources Wales / Anglesey Terns / Morwenoliaid Ynys Môn potential SPA](#)

Tyldsley, D., and Chapman, C. 2013. *The Habitats Regulations Assessment Handbook (Latest online edition)*: DTA Publications Ltd.

APPENDICES

Appendix A: European sites potentially at risk (full table)

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
(1) All projects (terrestrial, marine, coastal)	Sites within which the project is wholly or partially located	Anglesey Terns / Morwenoliaid Ynys Môn SPA	This criterion identifies all the European sites within the footprint of the scheme.	Anglesey Terns / Morwenoliaid Ynys Môn SPA
(2) Projects that could affect wetland features	(a) Sites upstream or downstream of the project location in the case of river or estuary sites	Holy Island Coast / Glannau Ynys Gybi SAC	Effects considered are those associated with the physical presence of built development and the localised effects on surface/groundwater resources and quality, resulting from changes in run-off, sedimentation, erosion, etc.	None
	(b) Open water, peatland, fen, marsh and other wetland sites with relevant hydrological links to the project, irrespective of distance from the project location		Due to hydrological links from the project site, being located within the intertidal area, it is possible that there could be sedimentation and pollution as a result of the construction works to replace the bridge. Theoretically, this could affect marine habitats included as features of the Holy Island Coast SAC located 1.7km to the northwest, namely 'Reefs' and 'Submerged or partially submerged sea caves'. However, due to the presence of the harbour wall (breakwater) extending out for 2km into the sea and located between the proposed works and the SAC, along with the very localised nature of the proposed works, it is considered unlikely that these features would be significantly affected by the proposals, particularly due to the distance and dilution that would occur over this area.	
(3) Projects that could affect the marine environment	Sites that could be affected by changes in water quality, currents or flows; or effects on the intertidal	Anglesey Terns /	Effects considered are those of a wider, more strategic scale than (2) above.	Anglesey Terns / Morwenoliaid Ynys Môn SPA

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
	or sub-tidal areas, or the seabed, or marine species	Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC	Due to hydrological links from the project site, being located directly above the Anglesey Terns / Morwenoliaid Ynys Môn SPA and 20m southeast of the North Anglesey Marine / Gogledd Môn Forol SAC, it is possible that there could be sedimentation and pollution as a result of the works to replace the bridge, including noise pollution, that could affect marine species features such as harbour porpoise (feature of the North Anglesey Marine SAC), prey availability or disturbance of foraging terns (features of the Anglesey Terns SPA) using marine habitat nearby, or grey seal (mobile species feature of the Holy Island Coast SAC located 1.7km to the northwest).	North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC
(4) Projects that could affect the coast	Sites in the same coastal 'cell', or part of the same coastal ecosystem, or where there are interrelationships with or between different physical coastal processes	None	Effects considered are those of a wider, more strategic scale than (2) above. The proposals are not expected to have any impact on the coast, other than the impacts covered in (3) above.	None
(5) Projects that could affect mobile species	Sites whose qualifying features include mobile species which may be affected by the project irrespective of the location of the project or whether the species would be in or out of the site when they might be affected	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC	This considers direct impacts of the scheme on mobile species within or outside the designated sites. Mobile species are those considered to spend part of their life-cycle on land, in water or air beyond the designated site boundary. Typically, it focuses on potential impacts on functionally-linked land and water utilised by bird, mammals or fish associated with European sites. The Anglesey Terns / Morwenoliaid Ynys Môn SPA supports a population of four different Terns which will range within and beyond the boundaries of the SPA to feed and commute using the waterways, sky and riparian land to feed, rest and breed.	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
		Holy Island Coast / Glannau Ynys Gybi SAC Holy Island Coast / Glannau Ynys Gybi SPA	Biodiversity records show the closest record of Common Terns and Sandwich Terns, which are features of the SPA, are located 206m south-west to the proposed works. There is therefore potential for disturbance of foraging terns, but all known nesting sites are located over 10km away from the proposals so it is unlikely that active nests would be disturbed. It is also possible that construction pollution could lead to impacts on prey (fish) species availability. There are no biodiversity records of harbour porpoise (the sole feature of North Anglesey Marine SAC) within 2km of the proposed works but they are likely to utilise the surrounding waters and could be disturbed due to construction noise/vibration during the works. Again, it is also possible that they could be affected by pollution impacts during construction, in addition to possible pollution impacts on prey availability. Similar impacts to those described above could also affect the Atlantic grey seal, a feature of the Holy Island Coast SAC. Chough is the sole feature of the Holy Island Coast SPA and is also a mobile species feature. However, the nest sites of this species are located within the SPA, 1.7km away at its closest points, and these are therefore unlikely to suffer significant disturbance due to the proposed works. Chough feed on terrestrial invertebrate species which are unlikely to be affected by the proposed works and there is no suitable foraging habitat for the species in the vicinity of the proposals so it is unlikely that this species feature would be significantly affected by the	

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
			proposals. Holy Island Coast SPA is therefore scoped out of any further assessment. Note that 'indirect' effects on mobile species on functionally – linked land or water beyond the development site, are also considered under other criteria below, such as '6. Recreational pressure', and '14. Disturbance'.	

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
(6) Projects that could increase recreational pressure on European sites where qualifying features are sensitive to such pressures	(a) European sites within which the project would be wholly or partly located (b) Such European sites within an agreed zone of influence or other reasonable and evidence-based travel distance of the project location that may be affected by local recreational or other visitor pressure generated by the project (c) Such European sites within an agreed zone of influence or other evidence-based longer travel distance of the project, which are major (regional or national) visitor attractions such as European sites which are National Nature Reserves where public visiting is promoted, sites in National Parks, coastal sites and sites in other major tourist or visitor destinations	None	The works are not likely to result in any increase in recreational pressure.	None
(7) Projects which could increase the amount of development	(a) Sites that are used for, or could be affected by, water abstraction irrespective of distance from the project	None	The project is not considered likely to increase development.	None

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
	(b) Sites used for, or could be affected by, discharge of effluent from wastewater treatment works or other waste management streams serving the project, irrespective of distance from the project			
	(c) Sites that could be affected by the provision of new or extended transport or other infrastructure			
	(d) Sites that could be affected by increased deposition of air pollution arising from the proposals, including emissions from significant increases in traffic			
(8) Projects comprising linear developments or infrastructure	Sites within a specified distance from the centre line of the proposed route (or alternative routes), the distance may be varied for differing types of site/qualifying features and in the absence of established good practice standards, distances(s) to be agreed by the statutory conservation body	None	This HRA has adopted a 2km radius in which to evaluate the potential impacts of the proposed works. Individual effects are identified in other criteria. This criterion does not identify the types of potential impacts which are, instead, more closely defined by other criteria as listed above or below. Therefore, column 5 has been left blank as attention is drawn to more specific criteria.	See other criteria

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
(9) Projects that introduce new activities or new uses into the marine, coastal or terrestrial environment	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the new activities proposed by the project	None	The project is not considered to introduce new activities or uses into the environment.	None
(10) Projects that could change the nature, area, extent, intensity, density, timing or scale of existing activities or uses	Sites considered to have qualifying features potentially vulnerable or sensitive to the effects of the changes to existing activities proposed by the project	None	The proposed work would not change the characteristics of any existing activities or uses that might affect the protected sites.	None
(11) Projects that could change the quantity, quality, timing, treatment or mitigation of emissions or discharges to air, water or soil harvested, extracted or consumed	Sites considered to have qualifying features potentially vulnerable or sensitive to the changes in emissions or discharges that could arise as a result of the project, over and above those already identified project may affect, for example as prey species or supporting habitat or which may be disturbed by the harvesting, extraction or consumption	None	The project is not considered to change the quantity, quality, timing, treatment or mitigation of any emissions or discharges to air, water or soil harvested, extracted or consumed.	None
(12) Projects that could change the quantity, volume, timing, rate or other	Sites whose qualifying features include the biological resources which the project may affect, or whose qualifying features depend	None	No such activities are proposed and changes to biological resources that might affect qualifying features on all European sites listed can be ruled out of any further consideration.	None

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
characteristics of biological resources harvested, extracted or consumed	on the biological resources which the project may affect, for example prey species or supporting habitat which may be disturbed by the harvesting, extraction or consumption			
(13) Projects that could change the quantity, volume, timing, rate, or other characteristics of physical resources extracted or consumed	Sites whose qualifying features rely on the physical resources which the project may affect, for example, as habitat or a physical environment on which habitat may develop or which may be disturbed by the extraction or consumption	None	The proposed works would not cause changes to any physical resources extracted or consumed.	None
(14) Projects which could introduce or increase, or alter the timing, nature or location of disturbance to species	Sites whose qualifying features are considered to be potentially sensitive to disturbance, for example as a result of noise, activity or movement or the presence of disturbing features that could be brought about by the project	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast /	Biodiversity records show the closest record of Common Terns and Sandwich Terns, which are features of the Anglesey Terns SPA, are located 206m south-west of the proposed works. There is therefore a possibility of disturbance to foraging terns during the construction works. Harbour porpoise, the sole feature of the North Anglesey Marine SAC, could also be subject to disturbance due to noise/vibration during the construction period. Atlantic grey seal, a feature of the Holy Island Coast SAC, could be affected in the same way.	Anglesey Terns / Morwenoliaid Ynys Môn SPA North Anglesey Marine / Gogledd Môn Forol SAC Holy Island Coast / Glannau Ynys Gybi SAC

Types of project (or potential effect)	Sites to scan for and check	Initial list of potentially affected sites	Additional context	Final list of European sites potentially at risk
		Glannau Ynys Gybi SAC		
(15) Projects which could introduce or increase or change the timing, nature or location of light or noise pollution	Sites whose qualifying features are considered to be potentially sensitive to the effects of changes in light or noise that could be brought about by the project	See (14) above.	The proposals are not considered to increase light or noise pollution during the operational phase. There is potential for such disturbance during construction, which is considered in (14) above. Impacts to mobile species are covered under (5) and (14) above.	See (14) above
(16) Projects which could introduce or increase a potential cause of mortality of species	Sites whose qualifying features are considered to be potentially sensitive to the source of new or increased mortality that could be brought about by the project	None	The proposed works are not considered likely to introduce or increase a potential mortality of species. No further consideration is required.	None

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