

REPORT

Jetty Improvement Marine Licence

Shadow Habitats Regulation Assessment

Client: DragonLNG

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1 Introduction

1.1 Background and need for the scheme

DragonLNG is an operational liquefied natural gas (LNG) terminal operating in Milford Haven since 2009. DragonLNG is looking to undertake repairs for their jetty at Milford Haven in Pembrokeshire, Wales (referred to as the 'proposed scheme'). The jetty was constructed in the 1960s, built of steel piles, with a concrete roadway on top. Recent observations have identified potential issues with the integrity of the concrete roadway. In response, DragonLNG is looking to undertake an inspection of the jetty and carry out any subsequent repairs.

The inspection and repair works would be undertaken during the low shipping period (May to September) and are expected to last up to four years from 2027 to 2030.

To support a Marine Licence application as required under the Marine and Coastal Access Act, a shadow Habitats Regulation Assessment (HRA) has been conducted to provide the necessary information for the determining authority (the Natural Resources Wales (NRW)) to undertake their HRA for the proposed works.

1.2 Structure of this report

This report is structured as follows:

- **Section 1:** Introduction – this section.
- **Section 2:** Description of the proposed scheme.
- **Section 3:** European Sites and Features.
- **Section 4:** Screening for LSE.
- **Section 5:** LSE (in-combination).
- **Section 6:** Appropriate assessment.
- **Section 7:** Conclusion of HRA.

1.3 Habitats Regulations Assessment Process

In accordance with Regulation 63 of The Conservation of Habitats and Species Regulations 2017 (2017 No. 1012) (as amended)¹, an HRA is required for any plan or project, not connected with the management of a European site (as part of the UK National Site Network), to determine whether the project or plan could have an adverse effect on the integrity of that site, either alone or in-combination with other plans or projects.

A staged process to undertaking an HRA is as follows:

- **Stage 1 – Screening:** The process of identifying potentially relevant European Sites, and whether the proposed activity is likely to have a significant effect on the qualifying interest features of the European site, either alone or in-combination with other plans and projects. If it is concluded at this stage that there is no potential for likely significant effect (LSE), there is no requirement to carry out subsequent stages of the HRA.

¹ The national site network was introduced by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The national site network includes existing Special Areas of Conservation (SAC) and Special Protection Areas (SPA) and new SACs and SPAs designated under the 2019 Regulations. Ramsar sites do not form part of the national site network but remain protected in the same way as SACs and SPAs. For the purposes of this report, Ramsar sites are included in the definition of European sites.

In respect of HRA Screening (Stage 1), a ruling (April 2018) by the Court of Justice of the European Union (CJEU) referred to as *People Over Wind and Sweetman v Coillte Teoranta (C-323/17)* provided a judgement that “...it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site”. As such, no mitigation measures have been taken into account when undertaking the LSE screening exercise.

- **Stage 2 – Appropriate Assessment:** Where an LSE on a European Site(s) cannot be ruled out, either alone or in-combination with other plans and projects, assessment of the potential effects of the proposed activity on the integrity of the site(s), in view of its qualifying interest features and associated conservation objectives, is required. This assessment is referred to as an Appropriate Assessment (AA). Where the AA concludes that there would be an adverse effect on site integrity (or where such an effect cannot be discounted) an assessment of mitigation options is carried out and mitigation measures (where available) are proposed to address the effects. If, having considered mitigation, the potential for adverse effect on integrity remains, the HRA must progress to Stage 3.
- **Stage 3 - Derogations: allow exceptions:** Identify if the proposal qualifies for derogation by applying the three legal tests;
 1. Test 1: Consider alternative solutions: Identifying and examining alternative ways of achieving the objectives of the proposed activity to establish whether there are solutions that would avoid, or have a lesser effect on, the European Site(s), achieves the same overall goal and is financially, legally and technically feasible.
 2. Test 2: Consider imperative reasons of overriding public interest (IROPI): Where no alternative solution exists, the next stage of the process is to assess whether the proposed activity is necessary for IROPI and, if so, the identification of compensatory measures needed to maintain the overall coherence of the European Site(s).
 3. Test 3: Secure compensatory measures: If there are no feasible alternative solutions and it is shown that there are imperative reasons of overriding public interest, compensatory measures will be taken. These measures will need to fully offset the damage which will or could be caused to the site. The compensatory measures must not have a negative effect on the national network of European sites as a whole, despite the negative effects of the proposal on an individual European site.

2 Proposed scheme

2.1 Proposed scheme location

The proposed scheme is located in Milford Haven at OS Grid reference SM928044, as shown in **Figure 2-1**.

2.2 Overview

The proposed scheme consists of the inspection and subsequent repairs of DragonLNG's jetty. The proposed jetty structure varies in height above the water due to tidal fluctuations. On average, the underside of the jetty deck sits approximately 3.0 to 3.5 m above the waterline at high tide, increasing to around 4.5 to 5.5 m at low tide. These measurements are site-specific and have been verified through recent surveys conducted by DragonLNG or as-built drawings. The total area of concrete on the jetty is approximately 3,000 m².

2.3 Construction methodology

2.3.1 Access

Land based access will be from the north end of the jetty, where the structure meets the shore. Mobile equipment such as scaffolding and access towers will be used for land based repairs.

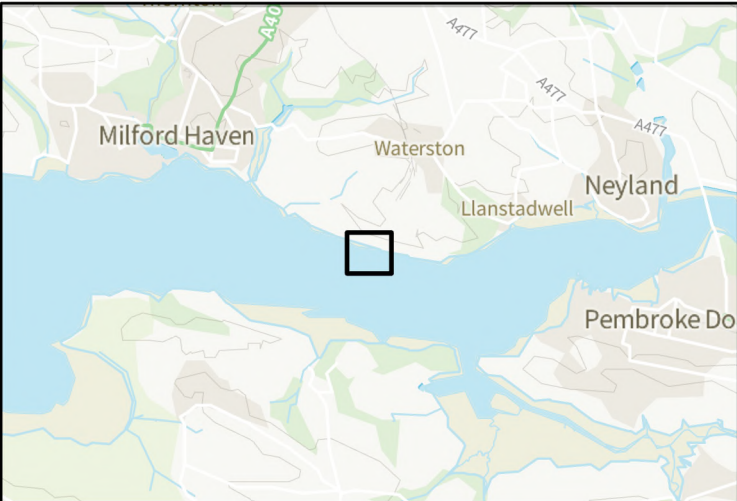
Barges and workboats will be used for transporting materials and equipment to site and will be used to reach the seaward sections for the jetty repairs. Suspended scaffolding or work platforms will be used for safe access beneath the deck when working over water. All access systems are engineered and will be approved in accordance with safety standards.

2.3.2 Concrete removal

Deteriorated concrete will be removed using a combination of hand tools, pneumatic chipping hammers, and, where appropriate, hydro-demolition. Removal will be controlled to prevent overbreak, minimise damage to surrounding structures and loss to the marine environment. Mitigation measures are detailed in **Section 2.4**.

2.3.3 Concrete pouring

Concrete will be poured in small sections of up to 2 m. Depending on the location and access chosen, concrete will be poured using either form-and-pour techniques, shotcrete application, or pre-mixed concrete delivered via pump lines. Admixtures may be used to improve workability and reduce curing time. A protective coating will then be applied to the concrete using rollers (or similar). The coating to be used will be reviewed to ensure suitable for application in the marine environment. It is expected to provide adequate protection against typical conditions encountered in coastal and offshore environments. Mitigation measures are detailed in **Section 2.4**.



Legend:

Project Boundary

Source: © Haskoning UK Ltd, 2025
Base map: Esri, Maxar, Earthstar Geographics, and the GIS User Community, Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

Project: Jetty Improvement Marine License (HRA)

Title: Location Plan

Figure:	2-1	Drawing No:	PC7468-HAS-XX-XX-DR-GS-0003			
Revision:	Date:	Drawn:	Checked:	Size:	Scale:	
01	26/08/2025	MW	RG	A3	1:2,000	

Co-ordinate system: OSGB 1936 British National Grid



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2.4 Mitigation

2.4.1 Dust control

It is proposed to use water misting systems and wet cutting techniques to suppress dust during concrete removal. Additionally, vacuum systems would be used in confined or sensitive areas.

2.4.2 Leaks and spills

All equipment will be inspected prior to mobilisation. Spill kits will be stationed at every work zone with drip trays placed under stationary machinery. Refuelling will be conducted away from the water where feasible, and secondary containment is proposed for fuel and chemical storage.

2.4.3 Containment measures

Silt curtains or floating booms will be deployed around work areas where there is a risk of material entering the water. It is proposed to install attachment trays or netting under the repair zones to capture any falling debris or slurry.

2.5 Programme

The inspection and repair works would be undertaken during the low shipping period (May to September) and are expected to last up to four years.

2.6 Operation

There are no proposed changes to the operation of the jetty due to the proposed works. The Jetty will remain operational throughout the repairs, both operational and accessed for routine maintenance tasks.

3 Screening for likely significant effects alone

This report considers all potential effect pathways (of relevance to European Sites) from the proposed scheme. This has been undertaken considering all credible effect pathways. The 'source' is defined as the individual elements of the activity that have the potential to affect a 'receptor' (i.e. the qualifying features of SACs, SPAs and Ramsar sites, including habitats and species that may be outside the boundary of a European Site, but which provide a supporting function to qualifying features of the site). The 'pathway' is the mechanism or route by which a given 'source' can affect the receptor. Whilst it is possible for each element to exist independently, an effect can only occur if there is a linkage between the source, pathway and receptor.

3.1 Identification of potential effect pathways

The potential for the proposed scheme to have LSE on European sites takes into account a combination of:

- the proximity of European sites;
- the nature of the construction works;
- the possible operational effects associated with the proposed scheme; and
- the sensitivity of the qualifying features to the effects of the proposed scheme.

The effect pathways identified for the assessment (having considered the points listed above) are:

- effects on species and habitats through water quality changes – marine environment;
- effects on species through increased noise and vibration – marine environment;
- effects on species through disturbance – marine environment; and
- effects through direct habitat loss and fragmentation – marine environment.

For these possible effect pathways, a suitably precautionary approach is to consider whether or not there could be a LSE on any European sites located within a 5 km distance of the proposed scheme.² The European sites identified within this 5 km zone are shown below in **Figure 3-1**, with additional site information provided in **Section 3.2**.

As shown in **Figure 3-1**, the footprint of the proposed scheme is within a small part of the following European site:

- Pembrokeshire Marine / Sir Benfro Forol SAC (UK0013116) (0 km)

Due to the spatial overlap between the proposed scheme and the SAC, the site is scoped in for further consideration.

The other sites located within the 5 km area of search are:

- Castlemartin Coast SPA (4.5 km)
- Limestone Coast of South West Wales / Arfordir Calchfaen De Orllewin Cymru SAC (4.4 km)

For these sites it is considered that, due to the nature of the proposed scheme and its likely maximum zone of influence, as well as its relatively significant distance from these sites, there is no realistic pathway for an effect, and the site is scoped out of further consideration.

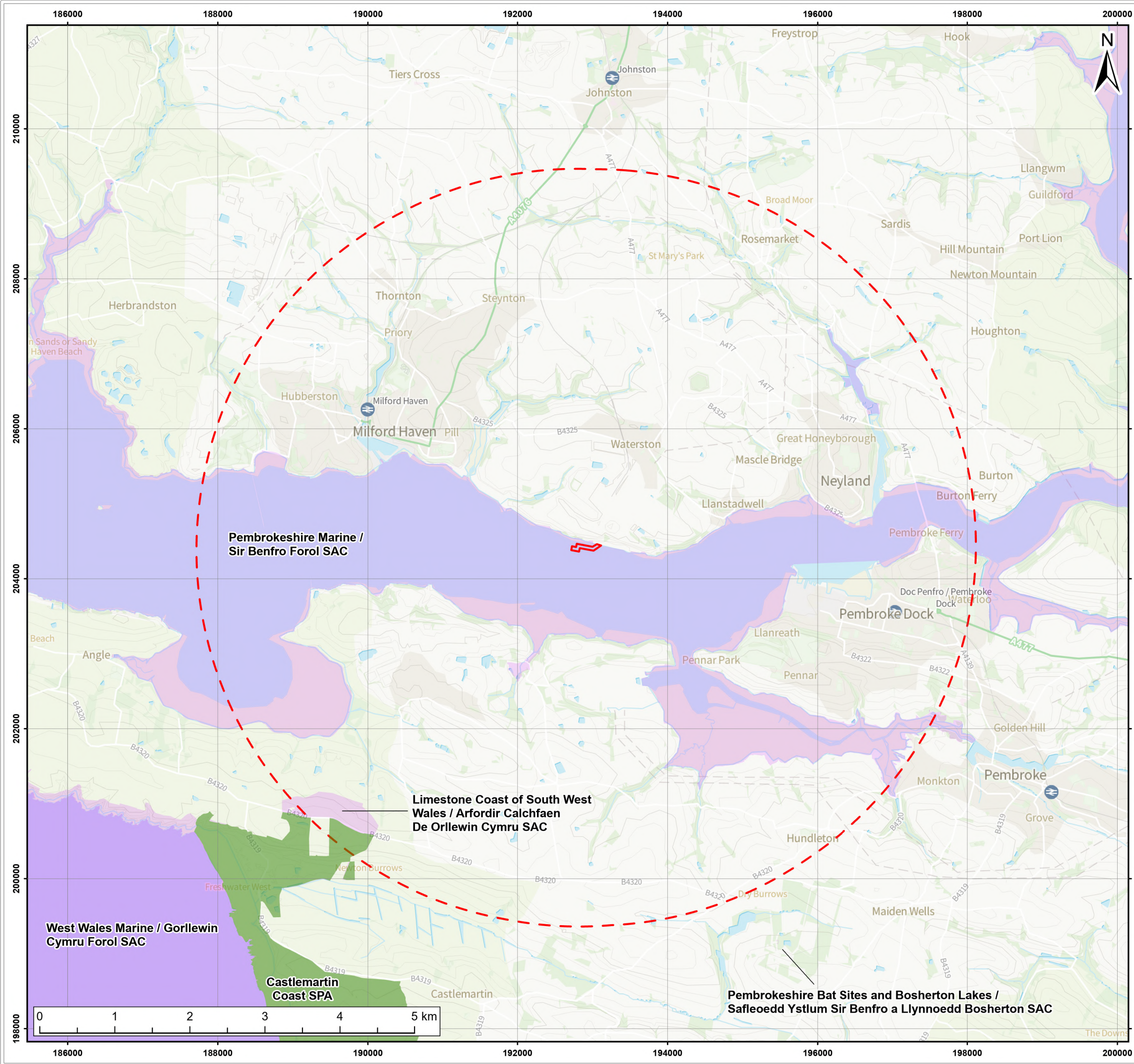
The following sites were considered for harbour porpoise as, although the sites are beyond the 5 km search area, the proposed scheme falls within the Celtic & Irish Seas (Marine Mammal Management Unit (MU)). However, due to the location, scale, and nature of the proposed scheme, and the significant size of the MU, an effect pathway is unlikely and therefore these sites are scoped out from further consideration.

² A 5 km radius is a benchmark for assessing the Zol



- West Wales Marine / Gorllewin Cymru Forol SAC (8.5 km)
- Bristol Channel Approaches / Dynesfeydd Môr Hafren SAC (11 km)
- North Anglesey Marine / Gogledd Môn Forol SAC (169 km)

The site screened in is shown in **Figure 3-1**.



Legend:

- Project Boundary
- 5km Study Area
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)

Source: © Haskoning UK Ltd, 2025, © Natural Resources Wales
Base map: Contains OS data © Crown Copyright and database right 2025
Contains data from OS Zoomstack

Project:

Jetty Improvement Marine License (HRA)

Title:

European Designated Sites

Figure:	3-1	Drawing No:	PC7468-HAS-XX-XX-DR-GS-0005			
Revision:	Date:	Drawn:	Checked:	Size:	Scale:	
01	08/09/2025	MW	RG	A3	1:50,000	

Co-ordinate system:

OSGB 1936 British National Grid

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3.2 Pembrokehire Marine / Sir Benfro Forol SAC (UK0013116)

The Pembrokehire Marine / Sir Benfro Forol SAC (UK0013116) was transmitted to the European Commission in April 2003 and designated on December 13, 2004. Located in Pembrokehire, the site covers an area of 138,069.45 ha and the site is characterised by a diverse range of marine and coastal habitats, including estuaries, large shallow inlets and bays, reefs, and coastal lagoons. The SAC is renowned for its high species richness and diverse biological communities, particularly within the Milford Haven and Daugleddau estuaries, which feature a wide range of environmental conditions such as seabed substrates, tidal streams, and salinity gradients. The qualifying features of the SAC are as follows;

The site was designated in 2004 under Article 4.2 of the Conservation of Natural Habitats and of Wild Fauna and Flora Directive (92/42/EEC) for eight habitat features under Annex I and seven species features under Annex II. The primary reason for selection of this site was for the following Annex I habitats and Annex II species:

- Large shallow inlets and bays;
- Estuaries;
- Reefs; and
- Grey seal *Halichoerus grypus*

The following Annex I habitats and Annex II species are also present as a qualifying feature, but not a primary reason for selection of this site:

- Atlantic salt meadows *Glauco-Puccinellietalia maritima*;
- Mudflats and sandflats not covered by seawater at low tide;
- Coastal lagoons;
- Submerged or partially submerged sea caves;
- Sandbanks which are slightly covered by seawater all the time;
- Allis shad *Alosa alosa*;
- Twaite shad *Alosa fallax*;
- River lamprey *Lampetra fluviatilis*;
- Sea lamprey *Petromyzon marinus*;
- Otter *Lutra lutra*; and
- Shore dock *Rumex rupestris*

Of the above listed features, the following qualifying habitat features are scoped out of further assessment due to their distances from the proposed scheme, which are beyond the zone of influence from any of the identified effect pathways:

- Atlantic salt meadows (2.5km);
- Coastal lagoons (4km);
- Submerged or partially submerged sea caves (6.8km);
- Sandbanks which are slightly covered by sea water all the time (10.8km); and
- Shore dock (14km).

3.3 Conservation objectives

Section 3.3.1 to 3.3.4 presents the conservation objectives of the qualifying features screened in for further assessment. Features with the same overarching objectives are presented in the same section.

3.3.1 Large shallow inlets and bays, estuaries, reefs mudflats and sandflats not covered by seawater at low tide

The mudflats and sandflats, large shallow inlets and bays, estuaries and reefs features within Pembrokeshire Marine SAC are currently in unfavourable condition³. The overarching conservation objectives are⁴:

Objective 1: The overall distribution and extent of the large shallow inlets and bays, estuaries and reefs features within the SAC and each of its main component habitats are stable or increasing, subject to natural change.

Objective 2: The hydro-morphological and chemical elements necessary for the structure and function of the large shallow inlets and bays, estuaries and reefs features are stable or improving, subject to natural change.

Objective 3: The abundance, distribution and diversity of species within component habitats and communities necessary for the structure and function of the features are stable or improving, subject to natural variability.

3.3.2 Grey seal

The grey seal feature within Pembrokeshire Marine SAC is currently in favourable condition³. The overarching conservation objectives for seals are⁴:

Objective 1: The grey seal population using the SAC is maintained in favourable condition and stable or increasing over the medium and long term.

Objective 2: The grey seal population that use the SAC continue to have access to and be able to utilise habitats necessary to maintain the population in favourable condition.

Objective 3: The grey seal population that use the SAC have high quality habitat and sufficient food supply to support and maintain the population in favourable condition.

3.3.3 Allis shad, Twaite shad, River lamprey and Sea lamprey

The allis shad, twaite shad, river and sea lamprey features in the Pembrokeshire Marine SAC are currently in unfavourable condition³. The overarching conservation objectives for seals are⁴:

Objective 1: The wider allis shad, twaite shad, river and sea lamprey populations that use the SAC are restored to favourable condition and are stable or increasing in the long-term.

Objective 2: The allis shad, twaite shad, river and sea lamprey population that use the SAC continue to have unimpeded access to the habitats necessary for the marine phase of their migration.

Objective 3: The quality of habitat and abundance of food supply is sufficient to restore the population of allis and twaite shad that use the SAC to favourable condition.

³Condition Assessments for the Designated Features of Ardal Cadwraeth Arbennig Sir Benfro Forol / Pembrokeshire Marine Special Area of Conservation

⁴ Ardal Cadwraeth Arbennig Sir Benfro Forol / Pembrokeshire Marine Special Area of Conservation

3.3.4 Otter

The otter feature within Pembrokeshire Marine SAC is currently in unfavourable condition³. The overarching conservation objectives for seals are⁴:

Objective 1: The otter population that use the SAC is restored to favourable condition and stable or increasing in the long term.

Objective 2: The otter population that use the SAC continue to have access to and be able to utilise habitats necessary to restore the population to favourable condition.

Objective 3: The otter population that use the SAC have high quality habitat and sufficient food supply to support and restore the population to favourable condition.

3.4 Construction phase

All construction-related activities will be confined to within the red line Site boundary, as shown in **Figure 2-1**, with the proposed scheme being accessed from adjacent roads and by sea.

It is considered that, as the proposed scheme is located within the SAC boundary, there is a potential for an effect on the SAC features above through one or more of the effect pathways listed below:

- effects on species and habitats through water quality changes – marine environment;
- effects on species through increased noise and vibration – marine environment;
- effects on species through disturbance – marine environment; and
- effects through direct habitat loss and fragmentation – marine environment.

In terms of effects on mobile species i.e. grey seal, allis shad, twaite shad, river lamprey, sea lamprey and otter, considering the nature of the proposed scheme, that activities will take place above surface and within a tight envelope i.e. the jetty footprint, the annual duration of activities (May to September) and the significant size of the SAC, there is unlikely to be a pathway for an effect on any of these species. On this basis, with consideration of their conservation objectives, LSE can be ruled out for grey seal, allis shad, twaite shad, river lamprey, sea lamprey and otter. The following species-related effect pathways can therefore also be excluded from further consideration:

- effects on species through water quality changes;
- effects on species through increased noise and vibration – marine environment; and
- effects on species through disturbance – marine environment.

With regards to the remaining SAC features for assessment i.e. large shallow inlets and bays, estuaries, reefs and mudflats and sandflats not covered by seawater at low tide, the following effect pathways are assessed:

- effects on habitats through water quality changes – marine environment; and
- effects through direct habitat loss and fragmentation – marine environment.

Whilst there is a potential for materials (e.g. concrete) to fall into the water from the works above and contaminants to enter the marine environment through accidental spills from machinery, vehicles and vessels, as well as the introduction of liquid concrete it is considered that the application of standard/ legally required working practices, such as containment measures (silt curtains or floating booms) and pollution prevention measures (requirements under the Environmental Permitting Act and MARPOL requirement⁵), applied across the area of works will significantly reduce the potential for any effect to occur.

⁵ *International Convention for the Prevention of Pollution from Ships (MARPOL)*

On this basis and considering the nature of the proposed scheme, that activities will take place within a confined envelope i.e. the jetty footprint, the annual duration of activities (May to September), the significant size of the SAC and the low sensitivity of the features to the potential effects, it can be concluded that there is no realistic pathway for an effect on large shallow inlets and bays, estuaries, reefs and mudflats and sandflats not covered by seawater at low tide.

3.5 Operational phase

As the proposed scheme will not result in any operational changes to the jetty, an assessment is not necessary.

Therefore, for the reasons set out above, it can be concluded that LSE on the Pembrokeshire Marine / Sir Benfro Forol SAC, from the proposed scheme alone, can be ruled out.

3.6 Consideration of Likely Significant Effects In-combination

As mentioned in section 1.3 of this report, an HRA needs to consider in-combination effects. A competent authority must consider if any effects of the plan or project alone could combine with any other plan or project, that on its own also does not have a significant effect. If, in combination, the plan or project could have a likely significant effect on the European site, an AA will be necessary.

In terms of the proposed scheme, as there are no discernible effect pathways between the proposed scheme and a European site an in-combination assessment is not necessary (see **Table 3-1**).

Table 3-1 Outcome of LSE screening assessment on the Pembrokeshire Marine / Sir Benfro Forol SAC

Potential Effect	European Site	Outcome	LSE Conclusion
effects on species and habitats through water quality changes – marine environment;	Pembrokeshire Marine / Sir Benfro Forol SAC	Regarding the effects on mobile species i.e. grey seal, allis shad, twaite shad, river lamprey, sea lamprey and otter, considering the nature of the proposed scheme, that activities will take place above surface and within a tight envelope i.e. the jetty footprint, the annual duration of activities (May to September) and the significant size of the SAC, it is considered unlikely to be a discernible pathway for an effect on any of these species.	LSE (both alone and in-combination) can be excluded for all European sites based on no effect pathway.
effects on species through increased noise and vibration – marine environment;		While there is a potential for materials (e.g. concrete) to fall into the water from the works above and contaminants to enter the marine environment through accidental spills from machinery, vehicles and vessels, it is considered that the application of standard/ legally required working practices such as nets to catch falling debris as well as pollution prevention measures applied across the area of works (e.g. MARPOL requirement ⁶) will significantly reduce the potential for any impact to occur. On this basis and considering the nature of the proposed scheme, that activities will take place within a confined envelope i.e. the jetty footprint, the annual duration of activities (May to September) and the significant size of the SAC, it can be concluded that there is no discernible pathway for an effect on large shallow inlets and bays, estuaries, reefs and mudflats and sandflats not covered by seawater at low tide.	
effects on species through disturbance – marine environment; and			
effects through direct habitat loss and fragmentation – marine environment.			



4 Conclusion

The Stage 1 screening assessment has determined that there will be no LSE from the proposed scheme on any European sites, either alone or in-combination with other plans and projects. Based on this conclusion, an AA is not necessary.

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