

Record of a Habitats Regulations Assessment of a project or spatially-specific plan

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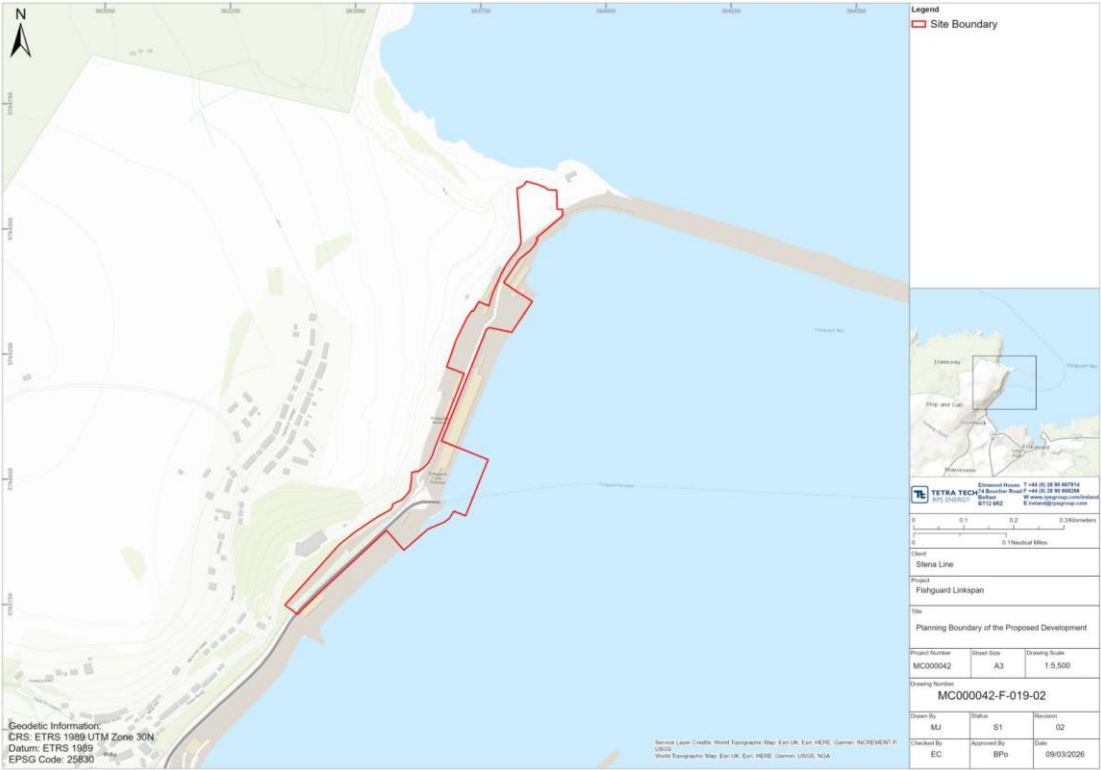
OGN 200 Form 1B

Record of a Habitats Regulations Assessment

Plan or project name, brief description or application reference number	CL2612 Fishguard Replacement Linkspan
HRA iteration/version	0

1. Plan or Project Details

Information about the plan or project		
1	Date application received	21 April 2026
2	Applicant details	Stena Line Ltd
3	NRW team responsible for carrying out, or requiring to be carried out, the plan or project, and name of lead officer	Marine Licensing Team
4	Activity/ies proposed	The Application is for the replacement of the existing linkspan bridge and jack up barge with a new floating linkspan pontoon to serve Stena line ferry at Fishguard Harbour. This will include plough dredging of 2,500m ³ with dredged material redistributed within the footprint of the works; piled reinforced concrete bankseat; tubular steel guide pile; rock armour scour protection; and ancillary and temporary works.

5	Relevant legislation or statutory basis	Marine and Coastal Access Act 2009
6	Location	Fishguard Ferry Port is located in Fishguard, Pembrokeshire, South-West Wales. The site is a parcel of land spanning an area of approximately 0.9 hectares of the harbour, to include the existing linkspan, hinterland and within the bay foreshore.  The map shows the Fishguard Ferry Port site boundary in red, located in Fishguard, Pembrokeshire, South-West Wales. The site is a parcel of land spanning an area of approximately 0.9 hectares of the harbour, to include the existing linkspan, hinterland and within the bay foreshore. The map includes a north arrow, a legend, a scale bar, and a title block. Geodetic Information: CRS: ETRS 1989 UTM Zone 30N Datum: ETRS 1989 EPSG Code: 25830 Legend: Site Boundary Scale: 0 0.1 0.2 0.3 Kilometres 0 0.1 0.2 0.3 Nautical Miles Client: Stena Line Project: Fishguard Linkspan Title: Planning Boundary of the Proposed Development Project Number: MC000042 Sheet Size: A3 Drawing Scale: 1:5,000 Drawing Number: MC000042-F-019-02 Drawn By: MJ Status: S1 Revision: 02 Checked By: EC Approved By: BPO Date: 09/03/2026

7	Plan or project documents, including any application documents	Vol 1 Main Chapter Title Chapter 1 Introduction Chapter 2 Project Description Chapter 3 Project Need & Alternatives Chapter 4 EIA Process and Methodology Chapter 5 Scoping & Consultation Chapter 6 Policy & Legislation Chapter 7 Population & Human Health Chapter 8 Marine Biodiversity Chapter 9 Terrestrial Ecology Chapter 10 Coastal Processes Chapter 11 Water Quality Chapter 12 Flood Risk Chapter 13 Noise & Vibrations Chapter 14 Underwater Noise Chapter 15 Air Quality Chapter 16 Cultural Heritage Chapter 17 Soils, Geology & Contaminated Land Chapter 18 Land Use & Material Assets Chapter 19 Traffic & Transport Chapter 20 Seascape, Landscape & Visual Chapter 21 Waste Management Chapter 22 Climate Change Chapter 23 Risk of Major Accidents & Disasters Chapter 24 Shipping & Navigation Chapter 25 Interactions Vol II Technical Appendices Appendix ref Title Appendix 2.A oCEMP Appendix 2.B Contractors Methodology Appendix 4.A Cumulative Longlist Appendix 5.A EIA Screening and Scoping Opinion Appendix 5.B Crown Estate
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		Appendix 5.C NRW Request for Further Information and Clarifications Appendix 6.A Fishguard Replacement Linkspan Pontoon WNMP Signposting Document Appendix 8.A Subtidal Benthic Survey Appendix 8.B INNSMP Biosecurity Risk Assessment Appendix 8.C Intertidal Survey Appendix 9.A Fishguard Harbour PEA Report Appendix 9.B Black Guillemot Survey Appendix 10.A Coastal Processes Modelling Appendix 11.A Water Framework Directive Assessment Appendix 13.A Baseline Noise Monitoring Appendix 13.B Noise Monitoring Results and Analysis Appendix 13.C Construction Noise Assessment Appendix 14.A Underwater Acoustics Appendix 14.B Taranis Appendix 14.C Weston Propagation Model Validation Appendix 15.A Detailed Dust Assessment Vol III Design Drawings and Figures Marine Licence Drawings POR00886-TT-ML-XX-DR-C-0250-A1-C01 Marine Licence Site Location Plan POR00886-TT-ML-XX-DR-C-0252-A1-C01 Marine Licence Proposed Layout POR00886-TT-ML-XX-DR-C-0251-A1-C01 Marine Licence Demolition Layout POR00886-TT-ML-XX-DR-C-0253-A1-C01 Marine Licence Plough Dredge Location Plan Figure 4.1 Cumulative Longlist Figure 9.1 Habitat Map Figure 13.1 Noise Study Area Figure 13.2 Noise Monitoring Locations Figure 13.3 Noise Sensitive Receptors Figure 16.1 Heritage Figures and Plates Figure 18.1 Water & Sewage Infrastructure
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	Figure 18.2 Figures 18.3 – 18.5 Figures 18.6 – 18.8 Figure 20.1 Figure 20.2 Figure 20.3 Figure 20.4 Figure 20.5 Figure 20.6 Vol IV HRA Chapter 1 LSE Screening Chapter 2 RIAA <table border="1"><tr><td>Non-Technical Summary</td></tr><tr><td>Marine Works Application Form</td></tr><tr><td>Dredge and Disposal Application Form</td></tr><tr><td>Marine Licence Boundary Coordinates</td></tr><tr><td>Marine Licence Dredge Coordinates</td></tr></table> <u>Additional documents submitted</u> CML2612 Clarification letter (specifying areas of the sediment sample analysis results included in this marine licence – as is the same as submitted for previous application CML2533 which had a larger scope) CML2612 - 03-06-25-Environmental-Statement-Vol-II-Technical Appendicies – 17 CML2612 POR00886-TT-ML-EX-IE-C-1600-A1-C02 Excel-Marine Licence Boundary Coordinates (co-ordinates including the area seaward of MHWS only) CML2612 POR00886-TT-ML-XX-DR-C-0250-A1-C02 Marine Licence Site Location Plan (seaward of MHWS only)	Non-Technical Summary	Marine Works Application Form	Dredge and Disposal Application Form	Marine Licence Boundary Coordinates	Marine Licence Dredge Coordinates	Electrical Infrastructure Openreach Telecoms Assets Lighting Design Zone of Theoretical Visibility Zone of Theoretical Visibility with Landscape and Marine CA Zone of Theoretical Visibility with Landscape Designations Zone of Theoretical Visibility and Viewpoint Locations Residential Receptors with 350m Photomontages
Non-Technical Summary							
Marine Works Application Form							
Dredge and Disposal Application Form							
Marine Licence Boundary Coordinates							
Marine Licence Dredge Coordinates							

		CML2612 POR00886-TT-ML-XX-DR-C-0252-A1-C02 Marine Licence Proposed Layout (seaward of MHWS only) CML2612 POR00886-TT-ML-XX-DR-C-0253-A1-C02 Marine Licence Plough Dredge Location Plan (seaward of MHWS only)
8	Environmental Statement	Public register - Customer Portal
9	Pre-application correspondence	Scoping Opinion SC2402 Public register - Customer Portal CML2533 – Previous Marine Licence Application for works under previous proposal – consultation and documentation Public register - Customer Portal CML2612 EIA 2017 Screening Opinion - https://publicregister.naturalresources.wales/Search/Download?RecordId=209066
10	NRW team responsible for preparing this HRA report, and lead officer	Emma Lowe, Marine Licensing Team, Permitting Services
11	Team or person responsible for approving the plan or project (competent authority role)	As row 10

2. Determining the need for a Habitats Regulations Assessment

2.1 Is there any possibility that the plan or project could negatively affect any European sites?	YES
2.2 Is the whole of the plan or project directly and only connected with or necessary to the management of one or more European sites, for the purposes of conserving the habitats or	NO

species for which the European site(s) is/are designated?	
2.3 Is there a possibility that the plan or project could affect any other feature of the European site(s) concerned, or of another European site, in a way that would undermine that feature's conservation objectives?	

3. Considering the likelihood of a significant effect (LSE)

3.1 Renewal of a project authorisation on the same or more restrictive terms as an extant authorisation

Is this a renewal of an extant authorisation which complies with NRW approved criteria for ruling out significant effects of renewals (see Part 2 of OGN200) without conducting a project-specific LSE test?	NO
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3.2 Likelihood of significant effects (LSE) test

3.2.1 Which European sites might be affected by the plan or project?

(a)	Based on the plan or project specification, or information provided in the application, it is considered that these European sites have features which could be negatively affected by the plan or project	• West Wales Marine/Gorllewin Cymru Forol SAC [UK0030397] (0km) • Bristol Channel Approaches/Dynesfeydd Môr Hafren SAC UK0030396 (82.4km) • North Anglesey Marine/Gogledd Môn Forol SAC UK0030398 (134.8km) • Cardigan Bay/Bae Ceredigion SAC [UK0012712] (14.9km) • Pembrokeshire Marine/Sir Benfro Forol SAC UK0013116 (21.5km) • Llyn Peninsula and the Sarnau/Pen Llŷn a'r Sarnau SAC UK0013117 (66.5km) • River Teifi/Afon Teifi SAC UK0012670 (22.8km)
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(b)	The potential for the plan or project to negatively affect these European sites was also initially considered, but can be ruled out without further consideration	The potential for the proposed project to affect the below sites was considered, however the potential for impacts was ruled out due to distance, and the highly limited spatial and temporal scale of the Proposed Development works. The methodology for site selection for assessment of effects is discussed further in the Application documentation CML2612 - EIA Volume IV HRA, ES Chapter 8: Marine Biodiversity and ES Chapter 9: Terrestrial Ecology. <u>UK Sites</u> • Cleddau Rivers SAC (3.91km, marine area of SAC used by otter features 92.9km away) • Skomer, Skokholm and the Seas off Pembrokeshire SPA (31.1 km) • Ramsay and St David's Peninsula coast SPA (20km) • Castlemartin Coast SPA (38km) • Carmarthen Bay SPA (40km) • Grassholm SPA (43.3 km) • Lundy SAC UK0013114 (118.3km) • North Channel SAC UK0030399 (241.4 km) • Isles of Scilly Complex SAC UK0013694 (250.6 km) • The Maidens SAC UK0030384 (323.8 km) • Treshnish Isles SAC UK0030289 (516.5 km) • Monach Islands UK0012694 (649.8 km) • North Rona UK0012696 (826.5km) <u>Irish Sites</u> • Blackwater Bank SAC IE0002953 (88.8km) • Carnsore Point SAC IE0002269 (90.0km) • Saltee Islands SAC IE0000707 (105.9km) • Codling Fault Zone SAC IE0003015 (147.4km) • Rockabill to Dalkey Island SAC IE0003000 (152.6km) • Lamby Island SAC IE0000204 (177.2km) • Roaringwater Bay and Islands SAC IE0000101 (311.4km) • Kenmare River SAC IE0002158 (371.0km)
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		• Blasket Islands SAC IE0002172 (428.5km) • Horn Head and Rinclevan SAC IE0000147 (493.8km) • Slieve Tooe/Tormore Island/Loughros Beg Bay SAC IE0000190 (567.1km) • Inishmore Island SAC IE0000213 (570.0km) • Kilkieran Bay and Islands SAC IE0002111 (579.6km) • Slyne Head Islands SAC IE0000328 (589.9km) • West Connacht Coast SAC IE0002998 (595.8km) • Inishbofin and Inishshark SAC IE0000278 (610.5km) • Bunduff Lough and Machair/Trawalua/Mullaghmore SAC IE0000625 (611.1km) • Duvillaun Islands SAC IE0000495 (664.4km) • Inishkea Islands SAC IE0000507 (666.3km) <u>French sites</u> • Mers Celtiques - Talus du golfe de Gascogne SAC FR5302015 (344.2km) • Nord Bretagne DH SAC FR2502022 (355.8km) • Abers - Côte des legends SAC FR5300017 (411.6km) • Ouessant-Molène SAC FR5300018 (412.7) • Côte de Granit rose-Sept-Iles SAC FR5300009 (419.6km) • Baie de Morlaix SAC FR5300015 (423.9km) • Tregor Goëlo SAC FR5300010 (442.5km) • Chaussée de Sein SAC FR5302007 (461.3km) • Cap d'Erquy-Cap Fréhel SAC FR5300011 (510.4km)
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3.2.2 Screening for likelihood of significant effect

Table 3.2.2 Screening assessment

Designated site feature	Relevant conservation objectives	Screening conclusion – ‘SCREEN OUT’, ‘SCREEN IN’ or ‘IN COMB’	Explanation

1. West Wales Marine SAC (0km)

West Wales Marine SAC (0KM)			
Harbour porpoise <i>Phocoena phocoena</i>	NRW conservation objectives: West Wales Marine pSAC: Draft Conservation Objectives And Advice On Activities (naturalresources.wales) To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status (FCS) for Harbour Porpoise in UK waters. In the context of natural change, this will be achieved by ensuring that: 1. Harbour porpoise is a viable component of the site; 2. There is no significant disturbance of the species; and 3. The condition of supporting habitats and processes, and the availability of prey is maintained.	SCREEN IN	<u>Disturbance/injury from underwater noise</u> Impact piling of steel piles during the construction phase has the potential to cause auditory injury or TTS and/or behavioural disturbance (including barrier effects) in marine mammals. There is potential for harbour porpoises to be present within or transiting through the Proposed Development boundary and potential ZoI during the piling. As assessed in the ES Chapter 14: Underwater Acoustics, auditory injury from impact piling was modelled out to 880 m for harbour porpoise. The peak pressure is likely to exceed the TTS onset threshold of harbour porpoise out to 50 m, with sound exposure exceeding the TTS onset threshold out to a maximum of 4,300 m. The behaviour disturbance threshold was exceeded up to 4,900 m for all three species, however this is limited to line of sight by the enclosure of Fishguard Bay. Other “noisy” activities (non-impulsive piling, dismantle/removal activities and dredging) may contribute to the cumulative effect of behavioural disturbance from

			underwater noise over the five month construction period. Noise from dredging may exceed the non-impulsive behavioural disturbance threshold for harbour porpoise (95 dB SPL) for up to 5,600 m, although there is considerable variation in the extent of the noise from the dredging depending on the location of the dredging vessel (see ES Chapter 8: Marine Biodiversity and ES Chapter 14: Underwater Noise). Whilst there is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, this will not represent a significant change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. However, the potential for LSE on the feature as a result of underwater noise arising from other non-impulsive construction activities cannot be discounted. <u>Therefore, there is potential for LSE from impact piling, non-impact piling, dredging and demolition activities.</u>
		SCREEN OUT	<u>Temporary Disturbance of Seabed Habitats</u> Temporary and long term seabed habitat loss and/or disturbance associated with the Proposed Development could result in a loss of Annex II marine mammal foraging habitat. However, this loss and/or disturbance will only represent a very small fraction of the known foraging ranges of these highly mobile species. The impact will be very localised (see ES Chapter 8: Marine Biodiversity and Chapter 10: Coastal Processes), particularly in the context of the wider available habitat. In addition, as the works associated with the Proposed Development will take place within an active harbour, it is unlikely that this area represented regular foraging habitat for the marine mammal baseline.

			<u>Therefore, there is no potential for LSE to the Harbour Porpoise feature of the SAC as a result of the Proposed Development footprint during the construction or operation phase, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased SSCs and associated deposition</u> Increases in SSCs and associated deposition as a result of dredging activities during the construction phase could have both direct and indirect impacts on marine mammals. Direct impacts could result in impaired visibility and therefore foraging ability, which might potentially reduce foraging success, while indirect impacts would include effects on prey species. However, marine mammals are well known to forage in tidal areas where water conditions are turbid and visibility conditions poor. Harbour porpoise commonly frequent coastal areas, so would likely be tolerant of turbid and silty water. Additionally, it is unlikely that Fishguard Harbour is prime foraging habitat due to the extremely weak tidal currents within the Harbour. Although increased SSCs may arise during activities within the Proposed Development Site Boundary, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour. Significant plumes of increased SSC are not anticipated; the maximum impact range is expected to be highly localised, and sediments will rapidly dissipate to below background concentrations over one tidal excursion (see ES Chapter 10: Coastal Processes for full details). <u>Therefore, there is no potential for LSE to Harbour Porpoise feature of the SACs as a result of the Proposed</u>

			<u>Development's dredging activities, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Changes in water quality, including release of sediment bound contaminants</u> Changes in water quality could arise from dredging activities during the construction phase; this includes the potential for the release of sediment bound contaminants. The extent of sediment dispersal is not expected to cause significant elevations in water column contamination, as chemical sediment analysis undertaken for the installation of the replacement linkspan previously suggested an overall low level of contamination in Fishguard Harbour (RPS, 2018b). In addition, the temporary and localised changes in water column contamination levels are considered unlikely to produce lethal and sub-lethal effects in the highly mobile Harbour porpoise species (the concentrations required to produce these effects are generally acquired through long-term, chronic exposure to prey species in which contaminants have bioaccumulated). <u>Therefore, there is no potential for LSE to the Harbour Porpoise feature of the identified SAC due to changes in water quality during construction, and this impact is screened out from further assessment.</u>
		SCREEN IN	<u>Accidental pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>

		SCREEN OUT	<u>Increased Risk of Collision with Vessels</u> Vessels associated with construction activities are unlikely to represent additional disturbance that is discernible above the already high levels of anthropogenic activity in Fishguard Harbour. Due to operational requirements within harbours, vessels will primarily be stationary, or travelling at low speeds, making the risk of collision very low. <u>Therefore, there is no potential for LSE to the Harbour porpoise feature of the identified SAC as a result of vessel movements during construction, and this impact is screened out from further assessment.</u>
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2. Bristol Channel Approaches (82.4km)

Bristol Channel Approaches/ Dynesfeydd Môr Hafren			
Harbour porpoise <i>Phocoena phocoena</i>	Joint Conservation Objectives (NRW, Natural England and JNCC): Bristol Channel Approaches pSAC: Draft Conservation Objectives and Advice on Activities	SCREEN IN	<u>Disturbance/injury from underwater noise</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the Harbour Porpoise feature of the West Wales Marine SAC, as part of the Celtic and Irish Seas Marine Mammal Management Unit, disturbance or injury from underwater noise is also screened in as a potential impact pathway for the same feature of this site. Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, there is potential for LSE on the Harbour Porpoise Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. <u>Therefore this impact has been screened in for further assessment for the identified SAC for Harbour porpoise.</u>

		SCREEN IN	<u>Accidental pollution</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the grey seal feature of the Cardigan Bay SAC, as part of the Celtic and Irish Seas Marine Mammal Management Unit, accidental pollution is also screened in as a potential impact pathway for the same feature of this site. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>

3. North Anglesey Marine SAC (134.8km)

North Anglesey Marine/Gogledd Môn Forol SAC			
Harbour porpoise <i>Phocoena phocoena</i>	NRW conservation objectives: North Anglesey Marine pSAC: Draft Conservation Objectives And Advice On Activities (naturalresources.wales)	SCREEN IN	<u>Disturbance/injury from underwater noise</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the Harbour Porpoise feature of the West Wales Marine SAC, as part of the Celtic and Irish Seas Marine Mammal Management Unit, disturbance or injury from underwater noise is also screened in as a potential impact pathway for the same feature of this site. Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, there is potential for LSE on the Harbour Porpoise Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. <u>Therefore this impact has been</u>

			screened in for further assessment for the identified SAC for Harbour porpoise.
		SCREEN IN	<u>Accidental pollution</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the grey seal feature of the Cardigan Bay SAC, as part of the Celtic and Irish Seas Marine Mammal Management Unit, accidental pollution is also screened in as a potential impact pathway for the same feature of this site. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>

4. Cardigan Bay/Bae Ceredigion SAC (14.9km)

Cardigan Bay/Bae Ceredigion SAC (14.9km)			
Sandbanks which are slightly covered by sea water all the time Reefs Submerged or partially submerged sea caves	NRW conservation objectives: conservation-advice-for-cardigan-bay-sac.pdf (published 2025)	SCREEN OUT	No credible pathway exists to this site feature, due to the localised nature of the works and that the site is over 10km away from the proposed project area.
Bottlenose dolphin <i>Tursiops truncatus</i>	NRW conservation objectives:	SCREEN IN	<u>Disturbance/injury from underwater noise</u>

	conservation-advice-for-cardigan-bay-sac.pdf (published 2025) Objective 1: The bottlenose dolphin population that use the SAC is maintained in favourable condition and stable or increasing over the medium and long term. Objective 2: The bottlenose dolphin 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 bottlenose dolphin population that use the SAC have high quality habitat and sufficient food supply to support and maintain the population in favourable condition.		Impact piling of steel piles during the construction phase has the potential to cause auditory injury or TTS and/or behavioural disturbance (including barrier effects) in marine mammals. There is potential for bottlenose dolphins to be present within or transiting through the Proposed Development boundary and potential ZoI during the piling. As assessed in the ES Chapter 14: Underwater Acoustics, auditory injury from impact piling was modelled out to 40m for bottlenose dolphin. The peak pressure is likely to exceed the TTS onset threshold of harbour porpoise out to 50m, with only 10m modelled for the bottlenose dolphin and grey seal, with sound exposure exceeding the TTS onset threshold out to a maximum 2,500m for bottlenose dolphin. The behaviour disturbance threshold was exceeded up to 4,900 m for all three species, however this is limited to line of sight by the enclosure of Fishguard Bay. Subsequently, underwater noise from impact piling would have the potential to cause LSE to all three marine mammal qualifying features, causing acute effects (Erbe <i>et al.</i>, 2018). Other “noisy” activities (non-impulsive piling, dismantle/removal activities and dredging) may contribute to the cumulative effect of behavioural disturbance from underwater noise over the five month construction period. Noise from dredging may exceed the non-impulsive behavioural disturbance threshold for bottlenose dolphin (92 dB SPL), for up to 5,600 m, although there is considerable variation in the extent of the noise from the dredging depending on the location of the dredging vessel (see ES Chapter 8: Marine Biodiversity and ES Chapter 14: Underwater Noise). Whilst there is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, this will not represent a significant
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			change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. However, the potential for LSE on the bottlenose dolphin feature of this European site as a result of underwater noise arising from construction activities cannot be discounted. Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, <u>there is potential for LSE on the bottlenose dolphin Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. Therefore this impact has been screened in for further assessment for Cardigan Bay SAC for bottlenose dolphin.</u>
		SCREEN OUT	<u>Temporary Disturbance of Seabed Habitats</u> Temporary and long term seabed habitat loss and/or disturbance associated with the Proposed Development could result in a loss of Annex II marine mammal foraging habitat. However, this loss and/or disturbance will only represent a very small fraction of the known foraging ranges of these highly mobile species. The impact will be very localised (see ES Chapter 8: Marine Biodiversity and Chapter 10: Coastal Processes), particularly in the context of the wider available habitat. In addition, as the works associated with the Proposed Development will take place within an active harbour, it is unlikely that this area represented regular foraging habitat for the marine mammal baseline. <u>Therefore, there is no potential for LSE to the Bottlenose dolphin feature of the SAC as a result of the Proposed Development footprint during the construction or operation</u>

			<u>phase, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased SSCs and associated deposition</u> Increases in SSCs and associated deposition as a result of dredging activities during the construction phase could have both direct and indirect impacts on marine mammals. Direct impacts could result in impaired visibility and therefore foraging ability, which might potentially reduce foraging success, while indirect impacts would include effects on prey species. However, marine mammals are well known to forage in tidal areas where water conditions are turbid and visibility conditions poor. Harbour porpoise commonly frequent coastal areas, so would likely be tolerant of turbid and silty water. Additionally, it is unlikely that Fishguard Harbour is prime foraging habitat due to the extremely weak tidal currents within the Harbour. Although increased SSCs may arise during activities within the Proposed Development Site Boundary, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour. Significant plumes of increased SSC are not anticipated; the maximum impact range is expected to be highly localised, and sediments will rapidly dissipate to below background concentrations over one tidal excursion (see ES Chapter 10: Coastal Processes for full details). Therefore, <u>there is no potential for LSE to the Bottlenose dolphin feature of the SAC as a result of the Proposed Development's dredging activities, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Changes in water quality, including release of sediment bound contaminants</u>

			Changes in water quality could arise from dredging activities during the construction phase; this includes the potential for the release of sediment bound contaminants. The extent of sediment dispersal is not expected to cause significant elevations in water column contamination, as chemical sediment analysis undertaken for the installation of the replacement linkspan previously suggested an overall low level of contamination in Fishguard Harbour (RPS, 2018b). In addition, the temporary and localised changes in water column contamination levels are considered unlikely to produce lethal and sub-lethal effects in the highly mobile Harbour porpoise species (the concentrations required to produce these effects are generally acquired through long-term, chronic exposure to prey species in which contaminants have bioaccumulated). <u>Therefore, there is no potential for LSE to the Bottlenose Dolphin feature of the identified SAC due to changes in water quality during construction, and this impact is screened out from further assessment.</u>
		SCREEN IN	<u>Accidental pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>
		SCREEN OUT	<u>Increased Risk of Collision with Vessels</u> Vessels associated with construction activities are unlikely to represent additional disturbance that is discernible above the already high levels of anthropogenic activity in Fishguard Harbour.

			Due to operational requirements within harbours, vessels will primarily be stationary, or travelling at low speeds, making the risk of collision very low. <u>Therefore, there is no potential for LSE to the Bottlenose Dolphin feature of the identified SAC as a result of vessel movements during construction, and this impact is screened out from further assessment.</u>
Grey seal <i>Halichoerus grypus</i>	NRW conservation objectives: conservation-advice-for-cardigan-bay-sac.pdf (published 2025) Objective 1: The grey seal population that use 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. Objective attributes: 3a. Habitat quality and function: Maintain the quality and functionality of habitat to support the grey seal population that use the SAC in favourable condition	SCREEN IN	<u>Disturbance/injury from underwater noise</u> Impact piling of steel piles during the construction phase has the potential to cause auditory injury or TTS and/or behavioural disturbance (including barrier effects) in marine mammals. There is potential for grey seals to be present within or transiting through the Proposed Development boundary and potential Zol during the piling. As assessed in the ES Chapter 14: Underwater Acoustics, auditory injury from impact piling was modelled out to 720m for grey seal. The peak pressure is likely to exceed the TTS onset threshold of harbour porpoise out to 50m, with only 10m modelled for the bottlenose dolphin and grey seal, with sound exposure exceeding the TTS onset threshold out to a maximum 4,400m for grey seal. The behaviour disturbance threshold was exceeded up to 4,900m for all three species, however this is limited to line of sight by the enclosure of Fishguard Bay. Subsequently, underwater noise from impact piling would have the potential to cause LSE to all three marine mammal qualifying features, causing acute effects (Erbe <i>et al.</i>, 2018). Other “noisy” activities (non-impulsive piling, dismantle/removal activities and dredging) may contribute to the cumulative effect of behavioural disturbance from underwater noise over the five month construction period.

	3b. Prey availability: Maintain the quality, abundance and diversity of prey needed for the grey seal population that use the SAC to remain in favourable condition 3c. Water, sediment and prey contaminants: Contaminants are at levels not detrimental to the grey seal population using the SAC.		Noise from dredging may exceed the non-impulsive behavioural disturbance threshold for grey seal (108 dB SPL) for up to 5,600 m, although there is considerable variation in the extent of the noise from the dredging depending on the location of the dredging vessel (see ES Chapter 8: Marine Biodiversity and ES Chapter 14: Underwater Noise). Whilst there is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, this will not represent a significant change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. However, the potential for LSE on the grey seal feature of this European site as a result of underwater noise arising from construction activities cannot be discounted. Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, <u>there is potential for LSE on the grey seal Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. Therefore this impact has been screened in for further assessment for Cardigan Bay SAC for grey seal.</u>
		SCREEN OUT	<u>Temporary Disturbance of Seabed Habitats</u> Temporary and long term seabed habitat loss and/or disturbance associated with the Proposed Development could result in a loss of Annex II marine mammal foraging habitat. However, this loss and/or disturbance will only represent a very small fraction of the known foraging ranges of these highly mobile species. The impact will be very localised (see ES Chapter 8: Marine Biodiversity and Chapter 10: Coastal Processes), particularly in the context of the wider available habitat.

			In addition, as the works associated with the Proposed Development will take place within an active harbour, it is unlikely that this area represented regular foraging habitat for the marine mammal baseline. <u>Therefore, there is no potential for LSE to the Grey Seal feature of the SAC as a result of the Proposed Development footprint during the construction or operation phase, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased SSCs and associated deposition</u> Increases in SSCs and associated deposition as a result of dredging activities during the construction phase could have both direct and indirect impacts on marine mammals. Direct impacts could result in impaired visibility and therefore foraging ability, which might potentially reduce foraging success, while indirect impacts would include effects on prey species. However, marine mammals are well known to forage in tidal areas where water conditions are turbid and visibility conditions poor. Harbour porpoise commonly frequent coastal areas, so would likely be tolerant of turbid and silty water. Additionally, it is unlikely that Fishguard Harbour is prime foraging habitat due to the extremely weak tidal currents within the Harbour. Although increased SSCs may arise during activities within the Proposed Development Site Boundary, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour. Significant plumes of increased SSC are not anticipated; the maximum impact range is expected to be highly localised, and sediments will rapidly dissipate to below background concentrations over one tidal excursion (see ES Chapter 10: Coastal Processes for full details).

			<u>Therefore, there is no potential for LSE to the grey seal feature of the SAC as a result of the Proposed Development's dredging activities, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Changes in water quality, including release of sediment bound contaminants</u> Changes in water quality could arise from dredging activities during the construction phase; this includes the potential for the release of sediment bound contaminants. The extent of sediment dispersal is not expected to cause significant elevations in water column contamination, as chemical sediment analysis undertaken for the installation of the replacement linkspan previously suggested an overall low level of contamination in Fishguard Harbour (RPS, 2018b). In addition, the temporary and localised changes in water column contamination levels are considered unlikely to produce lethal and sub-lethal effects in the highly mobile Harbour porpoise species (the concentrations required to produce these effects are generally acquired through long-term, chronic exposure to prey species in which contaminants have bioaccumulated). <u>Therefore, there is no potential for LSE to the Grey seal feature of the identified SAC due to changes in water quality during construction, and this impact is screened out from further assessment.</u>
		SCREEN IN	<u>Accidental pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>

		SCREEN OUT	<u>Increased Risk of Collision with Vessels</u> Vessels associated with construction activities are unlikely to represent additional disturbance that is discernible above the already high levels of anthropogenic activity in Fishguard Harbour. Due to operational requirements within harbours, vessels will primarily be stationary, or travelling at low speeds, making the risk of collision very low. <u>Therefore, there is no potential for LSE to the Grey seal feature of the identified SAC as a result of vessel movements during construction, and this impact is screened out from further assessment.</u>
Sea lamprey <i>Petromyzon marinus</i> River lamprey <i>Lampetra fluviatilis</i>	NRW conservation objectives: conservation-advice-for-cardigan-bay-sac.pdf (published 2025) Objective 1: The river and sea lamprey populations that use the SAC are maintained in favourable condition and are stable or increasing in the long-term. Objective 2: The river and sea lamprey that use the SAC continue to have unimpeded access to the habitats necessary to complete their life cycle. Objective 3: There is sufficient habitat and food supply to support the river and sea lamprey population using the site in the long term.	SCREEN IN	<u>Disturbance/injury from underwater noise</u> There is potential for diadromous fish to be present within or transiting through the Proposed Development boundary and potential Zol during the “noisy” construction activities. As part of the construction phase, noise sources such as dredging and dismantle/remove activities will occur, alongside piling activities, most of which will be considered non-impulsive noise-sources, such as vibro-piling and rotary boring techniques, involved in the installation of the pontoon’s main piles. Impact piling will take place in connection with installation of 8 support piles, with the largest source levels coming from impulsive impact piling, of 209dB Exposure Level (SEL) or 245 dB maximal instantaneous Sound Pressure Level (SPL) (LP). Therefore, the impact piling of the support piles has the greatest potential to cause auditory injury or Temporary Threshold Shift (TTS) and/or behavioural disturbance to diadromous fish species, according to the underwater noise modelling in the ES Chapter 14: Underwater Noise, and as such, is presented as the worst-case scenario for underwater noise from construction noise for diadromous fish. Further details on the background of underwater noise and its impact

			on diadromous fish can be found in ES Chapter 8: Marine Biodiversity. In ES Chapter 14: Underwater Noise, the injury and disturbance criteria (Popper et al., 2024; Washington State Department of Transport, 2020; Worcester, 2006) used for impulsive noise for fish was: • for auditory injury 203 dB SEL and 207 dB LP; • for TTS 186 dB SEL and 193 dB LP; and • for behavioural disturbance 150 dB SPL and 160 dB LP. The auditory injury thresholds for stationary diadromous fish were exceeded out to 670 m from the source of impact piling, while the auditory injury peak pressure exceeded the threshold 10 m from the source. The TTS threshold was exceeded at peak pressure out to 70 m from source of impact piling, while the behavioural disturbance range was 4,900 m. Behavioural disturbance is limited to line of sight by the enclosure of Fishguard Bay, with the northern breakwater of the Harbour and the headland to the east (Ynys Dinas/Dinas Island). While impact piling presents the worst-case scenario from underwater noise during construction, construction noise with a maximum disturbance range of 4.9 km, will last, in some form, for up to 12 weeks. However, this will be in the context of a relatively noisy background environment dominated by the ferry service from/to Rosslare, Ireland within Fishguard Harbour (see ES Chapter 14: Underwater Noise for further details). There is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, however this will not represent a significant change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. <u>However, the potential for LSE on the relevant Annex II diadromous fish features of the identified European sites as</u>
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			<u>a result of underwater noise arising from construction activities cannot be ruled out.</u>
		SCREEN OUT	<u>Temporary loss and/or disturbance of habitats</u> Temporary habitat loss and/or disturbance may occur during dredging activities in the construction phase. The footprint of this impact (2,520 m², 4.6% of the Site Boundary (54,325 m²)), however, would only constitute a very small fraction of the known ranges of local fish populations. Given that the works will be undertaken within an existing ferry terminal in Fishguard Harbour, the area does not represent pristine habitat, and any fish populations within the harbour are likely to be habituated to this. The Fishguard Harbour is not considered to represent an important habitat for fish species, in the context of the wider Pembrokeshire coast and there is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. On this basis, there is no potential for direct impacts to supporting habitats for Annex II diadromous fish species within any European site. <u>Therefore, there is no potential for LSE to Annex II sea and river lamprey features as a result of the Proposed Development footprint during the construction or operation phase, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Long term loss and/or disturbance of seabed habitats</u> Long term habitat loss and/or disturbance may occur in the construction phase, and will persist into the operational phase, due to the construction of the new reclamation area. The footprint of infrastructure associated with the Proposed Development will, however, cover a localised area (up to

			2.9%1 (1,600 m2) of the Site Boundary) that would only constitute a very small fraction of the known ranges of local fish populations. Given that the works will be undertaken within an existing ferry terminal within a harbour, the area does not represent pristine habitat, and any fish populations within the harbour are likely to be habituated to this. The Fishguard Harbour is not considered to represent an important habitat (feeding, nursery or spawning) for fish species, in the context of the wider Pembrokeshire coast, and there is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. On this basis, there is no potential for direct impacts to supporting habitats for Annex II diadromous fish species within any European site. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC as a result of the Proposed Development footprint during the construction or operation phase and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased Suspended Sediment Concentrations (SSCs) and associated deposition</u> There will be dredging undertaken in the construction phase, which could result in increased SSCs and deposition. Fish species may be vulnerable to this impact, through decreased visibility due to increased turbidity, and smothering from increased SSCs and associated deposition and siltation rate changes, which may impede foraging ability. There is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. While there is potential for juvenile or migrating adult diadromous fish to be within the Zol for increased SSCs and associated deposition, given the

			wide alternate sea area available, it is unlikely this will cause significant effects on the species or create a barrier to migration. Plough dredging will remove up to 2,500 m3 of surplus seabed sediment within the Site Boundary. However, physical processes modelling suggests that elevated SSCs, sediment plumes, and associated deposition will be localised within the vicinity of the dredge footprint, and be diminished quickly to below background concentrations of 5 mg/L (see ES Chapter 10: Coastal Processes for full details). As such, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour. No significant effects on the conservation objectives of relevant European sites from increased SSCs and associated deposition are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC during dredging activities, and this impact has been screened out from further assessment.</u>
		SCREEN OUT	<u>Changes in water quality (including release of sediment bound contaminants)</u> Dredging associated with construction activities will be undertaken within the Site Boundary. This could result in changes in water quality, such as organic enrichment and oxygen depletion and the release of sediment bound contaminants. Previous chemical sediment analysis undertaken for the installation of the replacement linkspan suggested an overall low level of contamination in Fishguard Harbour (RPS, 2018b), so exposure to potential contaminants is assessed as low. There is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species, and so, while there is potential for juvenile or migrating adult diadromous fish to be within the ZOI for this impact, it is unlikely this will cause significant effects on the species or create a barrier to migration. No significant effects on the

			conservation objectives of relevant European sites from changes in water quality are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC due to changes in water quality during dredging activities, and this impact has been screened out from further assessment.</u>
		SCREEN IN	<u>Accidental Pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>
		SCREEN OUT	<u>Increased risk of introduction and spread of Invasive Non-Native Species (INNS)</u> There is potential for the increased risk of introduction and spread of INNS associated with the Proposed Development due to vessel movement, acting as vectors facilitating the spread of INNS. Up to six vessels may be present during the construction phase, which will not be on site for an extended period of time. In addition, the installation of artificial hard structures (such as the linkspan pontoon and rock armour revetment) may represent increased available habitat for INNS to colonise throughout the operation phase. Given the wider ranging nature and habitat use of Annex II diadromous fish species, this impact is not likely to represent a significant impact to their ecology. It is anticipated that the risk of introduction and spread of INNS will be minimised and managed by the implementation of an INNS Management Plan, which is considered tertiary mitigation (standard sectoral practice) as per the updated IEMA guidance on mitigation (IEMA, 2024).

			No significant effects on the conservation objectives of relevant European sites are anticipated. Therefore, there is no potential for LSE to Annex II diadromous fish features as a result of the increased risk of introduction and spread of INNS associated with the Proposed Development and this impact is screened out from further assessment.
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5. Llyn Peninsula and the Sarnau/Pen Llŷn a'r Sarnau SAC UK0013117 (66.5km)

Pen Llŷn a'r Sarnau/Llyn Peninsula and the Sarnau SAC			
Reefs Large Shallow inlets and bays Sandbanks which are slightly covered by seawater at all times Estuaries Coastal lagoons Mudflats and Sandflats Atlantic salt meadow Salicornia and other annuals colonising mud and sand feature	NRW conservation objectives: conservation-advice-for-pen-llŷn-ar-sarnau-sac.pdf (published 2025)	SCREEN OUT	No credible impact pathways exist to these site features, due to the localised nature of the works and that the site is over 65km away from the proposed project area.

Submerged or partially submerged sea caves Otter <i>Lutra lutra</i>			
Bottlenose dolphin <i>Tursiops truncatus</i>	NRW conservation objectives: conservation-advice-for-pen-llŷn-ar-sarnau-sac.pdf (published 2025) Objective 1: The bottlenose dolphin population that use the SAC is maintained in favourable condition and stable or increasing over the medium and long term. Objective 2: The bottlenose dolphin 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 bottlenose dolphin population that use the SAC have high quality habitat and sufficient food supply to support and maintain the population in favourable condition.	SCREEN IN	<u>Disturbance/injury from underwater noise</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the Bottlenose Dolphin feature of the Cardigan Bay SAC, as part of the same Irish Sea Marine Mammal Management Unit, disturbance or injury from underwater noise is also screened in as a potential impact pathway for the same feature of this site. Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, there is potential for LSE on the bottlenose dolphin Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. <u>Therefore this impact has been screened in for further assessment for the identified SAC for bottlenose dolphin.</u>
		SCREEN IN	<u>Accidental pollution</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the Bottlenose Dolphin feature of the Cardigan Bay SAC, as part of the same Irish Sea Marine Mammal Management Unit, accidental pollution is also screened in as a potential impact pathway for the same feature of this site.

			There is therefore a potential for LSE to this feature of the SAC and further assessment is required.
Grey Seal <i>Halichoerus grypus</i>	NRW conservation objectives: conservation-advice-for-pen-llŷn-ar-sarnau-sac.pdf (published 2025) Objective 1: The grey seal population that use 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.	SCREEN IN	<u>Disturbance/injury from underwater noise</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the Grey seal feature of the Cardigan Bay SAC, as part of the same OSPAR Region III Celtic Seas MMMU, disturbance or injury from underwater noise is also screened in as a potential impact pathway for the same feature of this site. Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, there is potential for LSE on the grey seal Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. <u>Therefore this impact has been screened in for further assessment for the SAC for grey seal.</u>
		SCREEN IN	<u>Accidental pollution</u> As per NRW's position on the use of marine mammal management units for screening and assessment in habitats regulations assessments for special areas of conservation with marine mammal features, as there is a potential likely significant effect on the grey seal feature of the Cardigan Bay SAC, as part of the same OSPAR Region III Celtic Seas MMMU, accidental pollution is also screened in as a potential impact pathway for the same feature of this site. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>

6. Pembrokeshire Marine/Sir Benfro Forol SAC (21.5km)

Pembrokeshire Marine/Sir Benfro Forol SAC (21.5km)			
Estuaries Sandbanks which are slightly covered by seawater all the time Mudflats and sandflats not covered by seawater at low tide Coastal Lagoons Large shallow inlets and bays Reefs Submerged or partially submerged sea caves Atlantic salt meadows Shore dock <i>Rumex rupestris</i> Otter <i>Lutra lutra</i>	NRW conservation objectives: conservation-advice-for-sir-benfro-forol-pembrokeshire-sac.pdf	SCREEN OUT	No credible impact pathways exist to these site features, due to the localised nature of the works and that the site is over 20km away from the proposed project area.
Allis shad <i>Alosa alosa</i> Twaite shad	NRW conservation objectives:	SCREEN IN	<u>Disturbance/injury from underwater noise</u> Disturbance/injury from underwater noise

<i>Alosa fallax</i> River lamprey <i>Lampetra fluviatilis</i> Sea lamprey <i>Petromyzon marinus</i>	<u>conservation-advice-for-sir-benfro-forol-pembrokeshire-sac.pdf</u>		There is potential for diadromous fish to be present within or transiting through the Proposed Development boundary and potential ZOI during the “noisy” construction activities. As part of the construction phase, noise sources such as dredging and dismantle/remove activities will occur, alongside piling activities, most of which will be considered non-impulsive noise-sources, such as vibro-piling and rotary boring techniques, involved in the installation of the pontoon’s main piles. Impact piling will take place in connection with installation of 8 support piles, with the largest source levels coming from impulsive impact piling, of 209dB Exposure Level (SEL) or 245 dB maximal instantaneous Sound Pressure Level (SPL) (LP). Therefore, the impact piling of the support piles has the greatest potential to cause auditory injury or Temporary Threshold Shift (TTS) and/or behavioural disturbance to diadromous fish species, according to the underwater noise modelling in the ES Chapter 14: Underwater Noise, and as such, is presented as the worst-case scenario for underwater noise from construction noise for diadromous fish. Further details on the background of underwater noise and its impact on diadromous fish can be found in ES Chapter 8: Marine Biodiversity. In ES Chapter 14: Underwater Noise, the injury and disturbance criteria (Popper et al., 2024; Washington State Department of Transport, 2020; Worcester, 2006) used for impulsive noise for fish was: • for auditory injury 203 dB SEL and 207 dB LP; • for TTS 186 dB SEL and 193 dB LP; and • for behavioural disturbance 150 dB SPL and 160 dB LP. The auditory injury thresholds for stationary diadromous fish were exceeded out to 670 m from the source of impact piling, while the auditory injury peak pressure exceeded the threshold 10 m from the source. The TTS threshold was exceeded at peak pressure out to 70 m from source of
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			impact piling, while the behavioural disturbance range was 4,900 m. Behavioural disturbance is limited to line of sight by the enclosure of Fishguard Bay, with the northern breakwater of the Harbour and the headland to the east (Ynys Dinas/Dinas Island). While impact piling presents the worst-case scenario from underwater noise during construction, construction noise with a maximum disturbance range of 4.9 km, will last, in some form, for up to 12 weeks. However, this will be in the context of a relatively noisy background environment dominated by the ferry service from/to Rosslare, Ireland within Fishguard Harbour (see ES Chapter 14: Underwater Noise for further details). There is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, however this will not represent a significant change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. <u>However, the potential for LSE on the relevant Annex II diadromous fish features of the identified European sites as a result of underwater noise arising from construction activities cannot be ruled out.</u>
		SCREEN OUT	<u>Temporary loss and/or disturbance of habitats</u> Temporary habitat loss and/or disturbance may occur during dredging activities in the construction phase. The footprint of this impact (2,520 m², 4.6% of the Site Boundary (54,325 m²)), however, would only constitute a very small fraction of the known ranges of local fish populations. Given that the works will be undertaken within an existing ferry terminal in Fishguard Harbour, the area does not represent pristine habitat, and any fish populations within the harbour are likely to be habituated to this.

			The Fishguard Harbour is not considered to represent an important habitat for fish species, in the context of the wider Pembrokeshire coast and there is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. On this basis, there is no potential for direct impacts to supporting habitats for Annex II diadromous fish species within any European site. <u>Therefore, there is no potential for LSE to Annex II sea and river lamprey features as a result of the Proposed Development footprint during the construction or operation phase, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Long term loss and/or disturbance of seabed habitats</u> Long term habitat loss and/or disturbance may occur in the construction phase, and will persist into the operational phase, due to the construction of the new reclamation area. The footprint of infrastructure associated with the Proposed Development will, however, cover a localised area (up to 2.9%1 (1,600 m2) of the Site Boundary) that would only constitute a very small fraction of the known ranges of local fish populations. Given that the works will be undertaken within an existing ferry terminal within a harbour, the area does not represent pristine habitat, and any fish populations within the harbour are likely to be habituated to this. The Fishguard Harbour is not considered to represent an important habitat (feeding, nursery or spawning) for fish species, in the context of the wider Pembrokeshire coast, and there is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species.

			On this basis, there is no potential for direct impacts to supporting habitats for Annex II diadromous fish species within any European site. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC as a result of the Proposed Development footprint during the construction or operation phase and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased Suspended Sediment Concentrations (SSCs) and associated deposition</u> There will be dredging undertaken in the construction phase, which could result in increased SSCs and deposition. Fish species may be vulnerable to this impact, through decreased visibility due to increased turbidity, and smothering from increased SSCs and associated deposition and siltation rate changes, which may impede foraging ability. There is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. While there is potential for juvenile or migrating adult diadromous fish to be within the Zol for increased SSCs and associated deposition, given the wide alternate sea area available, it is unlikely this will cause significant effects on the species or create a barrier to migration. Plough dredging will remove up to 2,500 m3 of surplus seabed sediment within the Site Boundary. However, physical processes modelling suggests that elevated SSCs, sediment plumes, and associated deposition will be localised within the vicinity of the dredge footprint, and be diminished quickly to below background concentrations of 5 mg/L (see ES Chapter 10: Coastal Processes for full details). As such, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour.

			No significant effects on the conservation objectives of relevant European sites from increased SSCs and associated deposition are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC during dredging activities, and this impact has been screened out from further assessment.</u>
		SCREEN OUT	<u>Changes in water quality (including release of sediment bound contaminants)</u> Dredging associated with construction activities will be undertaken within the Site Boundary. This could result in changes in water quality, such as organic enrichment and oxygen depletion and the release of sediment bound contaminants. Previous chemical sediment analysis undertaken for the installation of the replacement linkspan suggested an overall low level of contamination in Fishguard Harbour (RPS, 2018b), so exposure to potential contaminants is assessed as low. There is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species, and so, while there is potential for juvenile or migrating adult diadromous fish to be within the ZOI for this impact, it is unlikely this will cause significant effects on the species or create a barrier to migration. No significant effects on the conservation objectives of relevant European sites from changes in water quality are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC due to changes in water quality during dredging activities, and this impact has been screened out from further assessment.</u>

		SCREEN IN	<u>Accidental Pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>
		SCREEN OUT	<u>Increased risk of introduction and spread of Invasive Non-Native Species (INNS)</u> There is potential for the increased risk of introduction and spread of INNS associated with the Proposed Development due to vessel movement, acting as vectors facilitating the spread of INNS. Up to six vessels may be present during the construction phase, which will not be on site for an extended period of time. In addition, the installation of artificial hard structures (such as the linkspan pontoon and rock armour revetment) may represent increased available habitat for INNS to colonise throughout the operation phase. Given the wider ranging nature and habitat use of Annex II diadromous fish species, this impact is not likely to represent a significant impact to their ecology. It is anticipated that the risk of introduction and spread of INNS will be minimised and managed by the implementation of an INNS Management Plan, which is considered tertiary mitigation (standard sectoral practice) as per the updated IEMA guidance on mitigation (IEMA, 2024). No significant effects on the conservation objectives of relevant European sites are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features as a result of the increased risk of</u>

			<u>introduction and spread of INNS associated with the Proposed Development and this impact is screened out from further assessment.</u>
Grey Seal <i>Halichoeurus grypus</i>	NRW conservation objectives: Pembrokeshire Marine/Sir Benfro Forol SAC (2018)	SCREEN IN	<u>Disturbance/injury from underwater noise</u> Impact piling of steel piles during the construction phase has the potential to cause auditory injury or TTS and/or behavioural disturbance (including barrier effects) in marine mammals. There is potential for grey seals to be present within or transiting through the Proposed Development boundary and potential Zol during the piling. As assessed in the ES Chapter 14: Underwater Acoustics, auditory injury from impact piling was modelled out to 720m for grey seal. The peak pressure is likely to exceed the TTS onset threshold of harbour porpoise out to 50m, with only 10m modelled for the bottlenose dolphin and grey seal, with sound exposure exceeding the TTS onset threshold out to a maximum 4,400m for grey seal. The behaviour disturbance threshold was exceeded up to 4,900m for all three species, however this is limited to line of sight by the enclosure of Fishguard Bay. Subsequently, underwater noise from impact piling would have the potential to cause LSE to all three marine mammal qualifying features, causing acute effects (Erbe et al., 2018). Other “noisy” activities (non-impulsive piling, dismantle/removal activities and dredging) may contribute to

			the cumulative effect of behavioural disturbance from underwater noise over the five month construction period. Noise from dredging may exceed the non-impulsive behavioural disturbance threshold for grey seal (108 dB SPL) for up to 5,600 m, although there is considerable variation in the extent of the noise from the dredging depending on the location of the dredging vessel (see ES Chapter 8: Marine Biodiversity and ES Chapter 14: Underwater Noise). Whilst there is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, this will not represent a significant change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. However, the potential for LSE on the grey seal feature of this European site as a result of underwater noise arising from construction activities cannot be discounted. <u>Due to this potential pathway and the connectivity of marine mammal populations throughout the MUs, there is potential for LSE on the grey seal Annex II marine mammal feature of the identified SAC as a result of underwater noise from piling, non-impact piling, dredging and demolition activities. Therefore this impact has been screened in for further assessment for the SAC for grey seal.</u>
		SCREEN OUT	<u>Temporary Disturbance of Seabed Habitats</u> Temporary and long term seabed habitat loss and/or disturbance associated with the Proposed Development could result in a loss of Annex II marine mammal foraging habitat. However, this loss and/or disturbance will only represent a very small fraction of the known foraging ranges of these highly mobile species. The impact will be very localised (see ES Chapter 8: Marine Biodiversity and Chapter 10: Coastal Processes), particularly in the context of the wider available habitat.

			In addition, as the works associated with the Proposed Development will take place within an active harbour, it is unlikely that this area represented regular foraging habitat for the marine mammal baseline. <u>Therefore, there is no potential for LSE to the Grey Seal feature of the SAC as a result of the Proposed Development footprint during the construction or operation phase, and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased SSCs and associated deposition</u> Increases in SSCs and associated deposition as a result of dredging activities during the construction phase could have both direct and indirect impacts on marine mammals. Direct impacts could result in impaired visibility and therefore foraging ability, which might potentially reduce foraging success, while indirect impacts would include effects on prey species. However, marine mammals are well known to forage in tidal areas where water conditions are turbid and visibility conditions poor. Harbour porpoise commonly frequent coastal areas, so would likely be tolerant of turbid and silty water. Additionally, it is unlikely that Fishguard Harbour is prime foraging habitat due to the extremely weak tidal currents within the Harbour. Although increased SSCs may arise during activities within the Proposed Development Site Boundary, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour. Significant plumes of increased SSC are not anticipated; the maximum impact range is expected to be highly localised, and sediments will rapidly dissipate to below background concentrations over one tidal excursion (see ES Chapter 10: Coastal Processes for full details).

			<u>Therefore, there is no potential for LSE to the grey seal feature of the SAC as a result of the Proposed Development's dredging activities, and this impact is screened out from further assessment.</u>
		SCREEN IN	<u>Accidental pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>
		SCREEN OUT	<u>Changes in water quality, including release of sediment bound contaminants</u> Changes in water quality could arise from dredging activities during the construction phase; this includes the potential for the release of sediment bound contaminants. The extent of sediment dispersal is not expected to cause significant elevations in water column contamination, as chemical sediment analysis undertaken for the installation of the replacement linkspan previously suggested an overall low level of contamination in Fishguard Harbour (RPS, 2018b). In addition, the temporary and localised changes in water column contamination levels are considered unlikely to produce lethal and sub-lethal effects in the highly mobile Harbour porpoise species (the concentrations required to produce these effects are generally acquired through long-term, chronic exposure to prey species in which contaminants have bioaccumulated). <u>Therefore, there is no potential for LSE to the Grey seal feature of the identified SAC due to changes in water quality during construction, and this impact is screened out from further assessment.</u>

		SCREEN OUT	<u>Increased Risk of Collision with Vessels</u> Vessels associated with construction activities are unlikely to represent additional disturbance that is discernible above the already high levels of anthropogenic activity in Fishguard Harbour. Due to operational requirements within harbours, vessels will primarily be stationary, or travelling at low speeds, making the risk of collision very low. <u>Therefore, there is no potential for LSE to the Grey seal feature of the identified SAC as a result of vessel movements during construction, and this impact is screened out from further assessment.</u>
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7. Afon Teifi / River Teifi SAC (22.8km)

Afon Teifi / River Teifi SAC (22.8km)			
River lamprey <i>Lampetra fluviatilis</i> Sea lamprey <i>Petromyzon marinus</i> Brook lamprey <i>Lampetra planeri</i> Atlantic salmon <i>Salmo salar</i>	CONSERVATION OBJECTIVES FOR N2K SITES	SCREEN IN	<u>Disturbance/injury from underwater noise</u> There is potential for diadromous fish to be present within or transiting through the Proposed Development boundary and potential ZOI during the “noisy” construction activities. As part of the construction phase, noise sources such as dredging and dismantle/remove activities will occur, alongside piling activities, most of which will be considered non-impulsive noise-sources, such as vibro-piling and rotary boring techniques, involved in the installation of the pontoon’s main piles. Impact piling will take place in connection with installation of 8 support piles, with the largest source levels coming from impulsive impact piling, of 209dB Exposure Level (SEL) or 245 dB maximal instantaneous Sound Pressure Level (SPL) (LP). Therefore, the impact piling of the support piles has the greatest potential to cause auditory injury or Temporary Threshold Shift (TTS) and/or behavioural disturbance to diadromous fish species, according to the underwater noise

			modelling in the ES Chapter 14: Underwater Noise, and as such, is presented as the worst-case scenario for underwater noise from construction noise for diadromous fish. Further details on the background of underwater noise and its impact on diadromous fish can be found in ES Chapter 8: Marine Biodiversity. In ES Chapter 14: Underwater Noise, the injury and disturbance criteria (Popper et al., 2024; Washington State Department of Transport, 2020; Worcester, 2006) used for impulsive noise for fish was: • for auditory injury 203 dB SEL and 207 dB LP; • for TTS 186 dB SEL and 193 dB LP; and • for behavioural disturbance 150 dB SPL and 160 dB LP. The auditory injury thresholds for stationary diadromous fish were exceeded out to 670 m from the source of impact piling, while the auditory injury peak pressure exceeded the threshold 10 m from the source. The TTS threshold was exceeded at peak pressure out to 70 m from source of impact piling, while the behavioural disturbance range was 4,900 m. Behavioural disturbance is limited to line of sight by the enclosure of Fishguard Bay, with the northern breakwater of the Harbour and the headland to the east (Ynys Dinas/Dinas Island). While impact piling presents the worst-case scenario from underwater noise during construction, construction noise with a maximum disturbance range of 4.9 km, will last, in some form, for up to 12 weeks. However, this will be in the context of a relatively noisy background environment dominated by the ferry service from/to Rosslare, Ireland within Fishguard Harbour (see ES Chapter 14: Underwater Noise for further details). There is the potential for two additional construction vessels onsite at any one time over the approximately 12 month construction phase, however this will not represent a
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			significant change from the baseline vessel traffic conditions in the already busy Fishguard Harbour. <u>However, the potential for LSE on the relevant Annex II diadromous fish features of the identified European sites as a result of underwater noise arising from construction activities cannot be ruled out.</u>
		SCREEN OUT	<u>Temporary loss and/or disturbance of habitats</u> Temporary habitat loss and/or disturbance may occur during dredging activities in the construction phase. The footprint of this impact (2,520 m², 4.6% of the Site Boundary (54,325 m²)), however, would only constitute a very small fraction of the known ranges of local fish populations. Given that the works will be undertaken within an existing ferry terminal in Fishguard Harbour, the area does not represent pristine habitat, and any fish populations within the harbour are likely to be habituated to this. The Fishguard Harbour is not considered to represent an important habitat for fish species, in the context of the wider Pembrokeshire coast and there is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. On this basis, there is no potential for direct impacts to supporting habitats for Annex II diadromous fish species within any European site. <u>Therefore, there is no potential for LSE to Annex II sea and river lamprey features as a result of the Proposed Development footprint during the construction or operation phase, and this impact is screened out from further assessment.</u>

		SCREEN OUT	<u>Long term loss and/or disturbance of seabed habitats</u> Long term habitat loss and/or disturbance may occur in the construction phase, and will persist into the operational phase, due to the construction of the new reclamation area. The footprint of infrastructure associated with the Proposed Development will, however, cover a localised area (up to 2.9%¹ (1,600 m²) of the Site Boundary) that would only constitute a very small fraction of the known ranges of local fish populations. Given that the works will be undertaken within an existing ferry terminal within a harbour, the area does not represent pristine habitat, and any fish populations within the harbour are likely to be habituated to this. The Fishguard Harbour is not considered to represent an important habitat (feeding, nursery or spawning) for fish species, in the context of the wider Pembrokeshire coast, and there is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. On this basis, there is no potential for direct impacts to supporting habitats for Annex II diadromous fish species within any European site. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC as a result of the Proposed Development footprint during the construction or operation phase and this impact is screened out from further assessment.</u>
		SCREEN OUT	<u>Increased Suspended Sediment Concentrations (SSCs) and associated deposition</u> There will be dredging undertaken in the construction phase, which could result in increased SSCs and deposition. Fish species may be vulnerable to this impact, through decreased visibility due to increased turbidity, and smothering from

			increased SSCs and associated deposition and siltation rate changes, which may impede foraging ability. There is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species. While there is potential for juvenile or migrating adult diadromous fish to be within the Zol for increased SSCs and associated deposition, given the wide alternate sea area available, it is unlikely this will cause significant effects on the species or create a barrier to migration. Plough dredging will remove up to 2,500 m3 of surplus seabed sediment within the Site Boundary. However, physical processes modelling suggests that elevated SSCs, sediment plumes, and associated deposition will be localised within the vicinity of the dredge footprint, and be diminished quickly to below background concentrations of 5 mg/L (see ES Chapter 10: Coastal Processes for full details). As such, the variation in SSC is not considered to be significant when compared with the natural range likely to be encountered within Fishguard Harbour. No significant effects on the conservation objectives of relevant European sites from increased SSCs and associated deposition are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC during dredging activities, and this impact has been screened out from further assessment.</u>
		SCREEN OUT	<u>Changes in water quality (including release of sediment bound contaminants)</u> Dredging associated with construction activities will be undertaken within the Site Boundary. This could result in changes in water quality, such as organic enrichment and oxygen depletion and the release of sediment bound contaminants. Previous chemical sediment analysis undertaken for the installation of the replacement linkspan suggested an overall low level of contamination in Fishguard

			Harbour (RPS, 2018b), so exposure to potential contaminants is assessed as low. There is no spatial overlap between the Proposed Development and any European Sites designated for Annex II diadromous fish species, and so, while there is potential for juvenile or migrating adult diadromous fish to be within the Zol for this impact, it is unlikely this will cause significant effects on the species or create a barrier to migration. No significant effects on the conservation objectives of relevant European sites from changes in water quality are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features at the identified SAC due to changes in water quality during dredging activities, and this impact has been screened out from further assessment.</u>
		SCREEN IN	<u>Accidental Pollution</u> There is a risk of accidental pollution from vessels and equipment during the construction and operation phases. <u>There is therefore a potential for LSE to this feature of the SAC and further assessment is required.</u>
		SCREEN OUT	<u>Increased risk of introduction and spread of Invasive Non-Native Species (INNS)</u> There is potential for the increased risk of introduction and spread of INNS associated with the Proposed Development due to vessel movement, acting as vectors facilitating the spread of INNS. Up to six vessels may be present during the construction phase, which will not be on site for an extended period of time. In addition, the installation of artificial hard structures (such as the linkspan pontoon and rock armour revetment) may represent increased available habitat for INNS to colonise throughout the operation phase. Given the wider ranging nature and habitat use of Annex II diadromous fish species, this impact is not likely to represent

			a significant impact to their ecology. It is anticipated that the risk of introduction and spread of INNS will be minimised and managed by the implementation of an INNS Management Plan, which is considered tertiary mitigation (standard sectoral practice) as per the updated IEMA guidance on mitigation (IEMA, 2024). No significant effects on the conservation objectives of relevant European sites are anticipated. <u>Therefore, there is no potential for LSE to Annex II diadromous fish features as a result of the increased risk of introduction and spread of INNS associated with the Proposed Development and this impact is screened out from further assessment.</u>
Bullhead <i>Cottus gobio</i> European otter <i>Lutra lutra</i> Floating water-plantain <i>Luronium natans</i> Water courses of plain to montane levels with the <i>Ranunculus fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of	CONSERVATION OBJECTIVES FOR N2K SITES	SCREEN OUT	No credible pathway exists due to the localised nature of the works, and the site is over 20km away from the Project.

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TABLE 3.2.3 Screening decision of the plan or project ‘alone’	
(a) If the screening conclusion for <u>all</u> features for all sites in Table 3.2.2 is ‘SCREEN OUT’	The plan or project is not likely to have a significant effect on any European site, and no further consideration under the Habitats Regulations is required in order to determine the approval/application.
(b) If the conclusion for <u>any</u> features in Table 3.2.2 is ‘SCREEN IN’	The plan or project is likely to have a significant effect on one or more European sites and therefore an appropriate assessment is required.
(c) If there are <u>no</u> features in Table 3.2.2 that are ‘SCREEN IN’ and <u>any</u> features that are ‘IN COMB’	The plan or project is not likely to have a significant effect on any European sites when considered alone, but the possibility of significant effects in combination with other plans and projects needs to be considered.

4. Appropriate assessment of the plan or project when considered alone

4.1 Assessment of plan or project as defined

Table 4.1 Appropriate assessment			
European site feature/s	Description of impacts	Assessment in view of conservation objectives	Can adverse effect on site integrity be ruled out? ‘YES’ or ‘NO’

European site name: West Wales Marine SAC Bristol Channel Approaches SAC North Anglesey Marine SAC			
Harbour porpoise <i>Phocoena phocoena</i>	There is the potential for disturbance and/or injury to Harbour Porpoise from underwater noise as a result of construction activities. There is the potential for auditory injury or TTS and/or behavioural disturbance (including barrier effects) to occur as a result of Underwater sound, particularly from impact piling of steel piles during the construction phase of the project. There is the potential for harbour porpoises to be present within, or transiting through the development boundary and potential ZOI during piling activities. Other activities associated with construction may also contribute to the cumulative effect of underwater noise, including non-impulsive piling, dismantling and removal activities, dredging and vessel movements.	As per MMMU guidance (Natural Resources Wales / Marine mammal management units in habitat regulations assessments), for harbour porpoise the Appropriate Assessment is carried out on the closest site to the proposed plan or project location first to rule AEOSI in a sequential approach. Impacts identified from the Proposed Development on harbour porpoise include effects of underwater noise arising from construction activities, including impact piling, which is considered the worst-case scenario. Construction activities are predicted to be highly localised in spatial extent and of short-term duration, with a total maximal duration of two hours of impact piling spread over two to ten days, and other “noisy” construction activities occurring intermittently for up to five months. Any auditory injury and/or TTS impacts from underwater noise due to impact piling will be of local spatial extent and intermittent, with limited risk of injury (within 880m). In addition, the implementation of a soft-start and pre-piling survey, as well as the Marine Mammal Mitigation Plan (MMMP), as an embedded mitigation measures will further reduce the distance in which individuals may be injured and the number of individuals injured further as they will be deterred beyond the predicted injury ranges. Behavioural disturbance due to construction activities will also be of local spatial extent, intermittent and reversible. Behavioural disturbance is estimated to a maximum of 5.6km from the source location and although the Proposed Development and thus the area of disturbance is within the SAC, it is only a very small proportion of the total site. The area of disturbance is 98.5km² (estimated as the area of a circle, $A=\pi r^2$, where r equals 5.6 km), which represents just over 1% of the total SAC area.	NO

		This method of estimating area of disturbance is based on using the maximum behavioural disturbance as the radius of the area and so provides a precautionary overestimate of the area within in which behavioural disturbance will occur, as the morphology of the coast (much of the disturbed 'circle' will be on land) and enclosed nature of Fishguard Bay will further reduce this area. The Site Boundary is also an area that is likely to be avoided by harbour porpoise due to the high level of anthropogenic activity (a working harbour) and high background noise levels dominated by the vessel activity at the ferry terminal. As the area is not key habitat for harbour porpoise within the SAC, it is also unlikely that the noise contours would cause barrier effects. Therefore, effects from underwater noise associated with the Proposed Development would not be expected to affect the harbour porpoise feature of the SAC or have population level effects, with less than 0.1% of the Celtic and Irish Seas MU population potentially disturbed. As such, underwater noise from construction activities is not predicted to impact the population from being able to maintain itself as a viable component of its natural habitat over the long term and the Proposed Development would not restrict this conservation objective from being achieved. Based on the evidence presented by the applicant, injury and disturbance from underwater sound generation will not prevent the Harbour porpoise feature from meeting its conservation objectives. The applicant's assessment takes account of mitigation measures that have been adopted as part of the project. In the absence of any mitigation measures, however, it not possible to rule out an AEOI. Further detail can be found in ES Chapter 8: Marine Biodiversity section 7.9.3 marine mammal impact assessment: Underwater noise from piling and other activities and ES Chapter 14: Underwater Noise and associated appendices.	
	There is a risk of accidental pollution from vessels and equipment, during the construction and operation phases of the project.	<u>Accidental pollution</u> There is a risk of accidental pollution from vessels and equipment, during the construction and operation phases. Pollution events are considered unlikely, and given the volumes, should an event occur, effects will be temporary,	NO

		reversible and limited in spatial extent (e.g. due to the expected low volumes of pollutants associated with vessels and equipment). In addition, it is anticipated that the risk of accidental pollution events will be further reduced and managed by the implementation of measures set out in standard post-consent plans,) such as an Environmental Management Plan (EMP), which will include a Marine Pollution Contingency Plan (MPCP). These plans are considered to be tertiary mitigation (standard sectoral practice as per Institute of Environmental Management and Assessment (IEMA) guidance on mitigation (IEMA, 2024)) and will include planning for accidental spills, address all potential contaminants that could be released, and include key emergency contact details. They will also set out good industry practice and relevant guidelines for preventing pollution at sea (such as those from OSPAR, IMO, and MARPOL). Based on the evidence presented by the applicant, effects resulting from accidental release of pollutants will not prevent the Harbour porpoise feature from meeting its conservation objectives. The applicant's assessment takes account of mitigation measures that have been adopted as part of the project. In the absence of any mitigation measures, however, it not possible to rule out an AEOL.	
European sites name: Sea lamprey, River lamprey, Brook lamprey, Allis shad, Twaite shad and Atlantic salmon sites (Cardigan Bay SAC, Pembrokeshire Marine SAC, River Teifi SAC)			
Sea lamprey <i>Petromyzon marinus</i> River lamprey <i>Lampetra fluviatilis</i> Allis shad <i>Alosa alosa</i> Twaite shad <i>Alosa fallax</i>	There is the potential for disturbance and/or injury to diadromous fish from underwater noise as a result of construction activities. There is the potential for auditory injury or TTS and/or behavioural disturbance (including barrier effects) to occur as a result of Underwater sound, particularly from impact piling of steel piles during the construction phase of the project. The impulsive impact piling has the largest source levels: 209 dB Exposure Level (SEL) or 245 dB maximal	There may be some low level of disturbance to fish features within the vicinity of the Proposed Development construction activities, resulting in potential highly localised avoidance behaviour. However, Fishguard Harbour is not anticipated to be a key habitat for any of the diadromous fish features due, in part, to high levels of anthropogenic activity, and so no significant reduction in their natural range is predicted due to noise contours causing barrier effects. The risk of auditory injury to diadromous fish is limited (to within 700 m) from the piling activity so it is highly unlikely fish populations will be significantly affected given the localised nature of the impact. Behavioural disturbance to diadromous fish may also occur within 4.9 km of piling activities predicted over the short term. However, as the protected sites are a minimum of 15.8km from the Proposed Development Site Boundary, it	YES

Atlantic salmon <i>Salmo salar</i>	instantaneous Sound Pressure Level (SPL) (LP). Therefore, the impact piling of the support piles has the greatest potential to cause auditory injury or Temporary Threshold Shift (TTS) and/or behavioural disturbance to diadromous fish species. Other activities associated with construction may also contribute to the cumulative effect of underwater noise, including non-impulsive piling, dismantling and removal activities, dredging and vessel movements.	is unlikely that there will be overlap between the SAC and the area of behavioural disturbance due to piling and so is unlikely to cause significant disturbance to the qualifying diadromous fish features of the SACs. Therefore, the sea lamprey, river lamprey, allis shad, twaite shad and Atlantic salmon populations as viable components of the site will continue to be maintained in the long-term. Therefore, effects from underwater noise associated with the Proposed Development (using piling as the worst-case scenario for diadromous fish) would not be expected to affect the sea lamprey, river lamprey, allis shad, twaite shad or Atlantic Salmon features of the SACs or have population level effects. As such, underwater noise from construction activities is not predicted to impact the species' populations from being able to maintain themselves as a viable component of its natural habitat over the long term and the Proposed Development would not restrict the conservation objectives from being achieved. There are also a range of mitigation measures associated with underwater noise during the construction phase of the Proposed Development, which will include a 20-minute soft start and adoption of the JNCC guidelines for minimising the risk of injury to marine mammals from piling (JNCC, 2010). This will involve a 30-minute pre-piling visual watch for absence of marine mammals with a mitigation zone by a qualified Marine Mammal Observer. Although soft starts are more appropriate mitigation for marine mammals compared to fish, the 20-minute soft start may also act as a deterrent for qualifying fish features. Based on the evidence presented by the applicant, effects resulting from underwater noise prevent the fish features of the above mentioned SACs from meeting their conservation objectives, in the absence of any mitigation measures.	
	There is a risk of accidental pollution from vessels and equipment, during the construction and operation phases of the project.	There is a risk of accidental pollution from vessels and equipment, during the construction and operation phases. Pollution events are considered unlikely, and given the volumes, should an event occur, effects will be temporary, reversible and limited in spatial extent (e.g. due to the expected low volumes of pollutants associated with vessels and equipment). In addition, it is anticipated that the risk of accidental pollution events will be further reduced and managed by the implementation of measures set out in	NO

		standard post-consent plans,) such as an Environmental Management Plan (EMP), which will include a Marine Pollution Contingency Plan (MPCP). These plans are considered to be tertiary mitigation (standard sectoral practice as per Institute of Environmental Management and Assessment (IEMA) guidance on mitigation (IEMA, 2024)) and will include planning for accidental spills, address all potential contaminants that could be released, and include key emergency contact details. They will also set out good industry practice and relevant guidelines for preventing pollution at sea (such as those from OSPAR, IMO, and MARPOL). Based on the evidence presented by the applicant, effects resulting from accidental release of pollutants will not prevent the fish features of the above mentioned sites from meeting their conservation objectives. The applicant's assessment takes account of mitigation measures that have been adopted as part of the project. In the absence of any mitigation measures, however, it not possible to rule out an AEOI.	
European sites name: • Cardigan Bay/Bae Ceredigion SAC • Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau SAC • Pembrokeshire Marine/Sir Benfro Forol SAC (**features only from this site)			
Bottlenose dolphin <i>Tursiops truncatus</i> Grey seal <i>Halichoerus grypus</i>	There is the potential for disturbance and/or injury to marine mammals from underwater noise as a result of construction activities. There is the potential for auditory injury or TTS and/or behavioural disturbance (including barrier effects) to occur as a result of Underwater sound, particularly from impact piling of steel piles during the construction phase of the project. There is the potential for marine mammals to be present within, or transiting through the development boundary and potential Zol during piling activities. Other activities associated with construction may	As per MMMU guidance (Natural Resources Wales / Marine mammal management units in habitat regulations assessments), for bottlenose dolphin the Appropriate Assessment is carried out on both bottlenose dolphin SACs: Pen Llyn a'r Sarnau and Cardigan Bay; whilst for grey seals it is carried out on the closest site to the proposed plan or project location first to rule AEOSI in a sequential approach. There is limited risk of injury to the bottlenose dolphin and grey seal features of the Cardigan Bay SAC from underwater noise (within 40m for bottlenose dolphin and 720 m for grey seal). Low levels of disturbance in the form of behavioural response to underwater noise is predicted over the short term within 5.6 km of the dredging activities. As the SAC is located 15.8 km from the Proposed Development Site Boundary, it is unlikely that there will be overlap between the SAC and the (overestimated) area of behavioural disturbance due to construction activities. Fishguard Harbour is not anticipated to be a key habitat for grey seal or bottlenose dolphin, and so no significant disturbance is predicted.	NO

	also contribute to the cumulative effect of underwater noise, including non-impulsive piling, dismantling and removal activities, dredging and vessel movements.	Therefore, the grey seal population as a viable component of the site will continue to be maintained in the long-term. There are also a range of mitigation measures associated with underwater noise during the construction phase of the Proposed Development, which will include a 20-minute soft start and adoption of the JNCC guidelines for minimising the risk of injury to marine mammals from piling (JNCC, 2010). This will involve a 30-minute pre-piling visual watch for absence of marine mammals with a mitigation zone by a qualified Marine Mammal Observer. Therefore, effects from underwater noise associated with the Proposed Development would not be expected to affect bottlenose dolphin or grey seal features of the SAC or have population level effects. As such, underwater noise from construction activities is not predicted to impact the species' populations from being able to maintain themselves as a viable component of its natural habitat over the long term and the Proposed Development would not restrict this conservation objective from being achieved. More detail can be found in the ES Chapter 8: Marine Biodiversity section 7.9.3 marine mammal impact assessment: Underwater noise from piling and other activities, and ES Chapter 14: Underwater Noise and associated appendices. Based on the evidence presented by the applicant, injury and disturbance from underwater sound generation will not prevent the Bottlenose dolphin or Grey seal features from meeting their conservation objectives. The applicant's assessment takes account of mitigation measures that have been adopted as part of the project. In the absence of any mitigation measures, however, it not possible to rule out an AEOI.	
	There is a risk of accidental pollution from vessels and equipment, during the construction and operation phases of the project.	<u>Accidental pollution</u> There is a risk of accidental pollution from vessels and equipment, during the construction and operation phases. Pollution events are considered unlikely, and given the volumes, should an event occur, effects will be temporary, reversible and limited in spatial extent (e.g. due to the expected low volumes of pollutants associated with vessels and equipment). In addition, it is anticipated that the risk of accidental pollution events will be further reduced and managed by the implementation of measures set out in	NO

		standard post-consent plans,) such as an Environmental Management Plan (EMP), which will include a Marine Pollution Contingency Plan (MPCP). These plans are considered to be tertiary mitigation (standard sectoral practice as per Institute of Environmental Management and Assessment (IEMA) guidance on mitigation (IEMA, 2024)) and will include planning for accidental spills, address all potential contaminants that could be released, and include key emergency contact details. They will also set out good industry practice and relevant guidelines for preventing pollution at sea (such as those from OSPAR, IMO, and MARPOL). Based on the evidence presented by the applicant, effects resulting from accidental release of pollutants will not prevent the Bottlenose dolphin or Grey seal features from meeting their conservation objectives. The applicant's assessment takes account of mitigation measures that have been adopted as part of the project. In the absence of any mitigation measures, however, it not possible to rule out an AEOI.	
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4.2 Appropriate assessment of the plan or project taking into account additional conditions or restrictions imposed by the competent authority

Table 4.2 Appropriate assessment of the plan or project taking into account additional conditions or restrictions				
European site name: Sites with Harbour Porpoise as a feature (West Wales Marine SAC, Bristol Channel Approaches SAC, North Anglesey Marine SAC)				
European site Feature	Adverse effect(s)	Can adverse effect(s) be mitigated by additional imposed conditions or restrictions? 'YES' or 'NO'	Additional imposed mitigation measure(s)	Can adverse effect on site integrity be ruled out? 'YES' or 'NO'
Harbour Porpoise	Disturbance/ injury from underwater noise	YES	In order to mitigate the impacts from underwater sound, the Applicant proposes a range of mitigation measures associated with underwater noise during the construction phase of the Proposed	YES

			Development, which will include a 20-minute soft start and adoption of the JNCC guidelines for minimising the risk of injury to marine mammals from piling (JNCC, 2010). This will also involve a 30-minute pre-piling visual watch for absence of marine mammals with a mitigation zone by a qualified Marine Mammal Observer. A Marine Mammal Mitigation Plan (MMMP) is also proposed by the Applicant, to reduce the distance in which individuals may be injured and the number of individuals injured further, as they will be deterred beyond the predicted injury ranges. The requirement to submit a MMMP for approval can be secured within the Marine Licence.	
Harbour porpoise	Accidental pollution	YES	The risk of accidental pollution events will be reduced and managed by the implementation of measures set out in standard post-consent plans,) such as an Environmental Management Plan (EMP), which will include a Marine Pollution Contingency Plan (MPCP). The MPCP will include best practice measures to prevent accidental spillage of chemicals during construction activities. An EMP will also be developed for the operational phase and manage the risks of all operational activities, including best practice measures to control pollution These plans are considered to be tertiary mitigation (standard sectoral practice as per Institute of Environmental Management and Assessment (IEMA) guidance on mitigation (IEMA, 2024)) and will include planning for accidental spills, address all potential contaminants that could be released, and include key emergency contact details. They will also set out good industry practice and relevant guidelines for preventing pollution at sea (such as those from OSPAR, IMO, and MARPOL). As part of the Proposed Development design, the Applicant also proposes to develop various plans according to published guidelines and best working practices for the prevention of pollution events, including the development of, and adherence to a	YES

			Construction Method Statement (CMS) along with a Code of Construction Practice (CoCP). The requirement to submit an EMP, MPCP, CMS and CoCP can be secured within the Marine Licence, in addition to standard pollution prevention practises which will be included in the Marine Licence conditions as standard.	
European site name: Sea lamprey, River lamprey, Brook lamprey, Allis shad, Twaite shad and Atlantic salmon sites Cardigan Bay SAC, Pembrokeshire Marine SAC, River Teifi SAC)				
Sea lamprey <i>Petromyzon marinus</i> River lamprey <i>Lampetra fluviatilis</i> Allis shad <i>Alosa alosa</i> Twaite shad <i>Alosa fallax</i> Atlantic salmon <i>Salmo salar</i>	Accidental pollution	YES	The risk of accidental pollution events will be reduced and managed by the implementation of measures set out in standard post-consent plans,) such as an Environmental Management Plan (EMP), which will include a Marine Pollution Contingency Plan (MPCP). The MPCP will include best practice measures to prevent accidental spillage of chemicals during construction activities. An EMP will also be developed for the operational phase and manage the risks of all operational activities, including best practice measures to control pollution These plans are considered to be tertiary mitigation (standard sectoral practice as per Institute of Environmental Management and Assessment (IEMA) guidance on mitigation (IEMA, 2024)) and will include planning for accidental spills, address all potential contaminants that could be released, and include key emergency contact details. They will also set out good industry practice and relevant guidelines for preventing pollution at sea (such as those from OSPAR, IMO, and MARPOL). As part of the Proposed Development design, the Applicant also proposes to develop various plans according to published guidelines and best working practices for the prevention of pollution events, including the development of, and adherence to a Construction Method Statement (CMS) along with a Code of Construction Practice (CoCP). The requirement to submit an EMP, MPCP, CMS and CoCP can be secured within the Marine Licence, in addition to standard pollution	YES

			prevention practises which will be included in the Marine Licence conditions as standard.	
European site name: Bottlenose Dolphin & Grey seal sites (Cardigan Bay SAC, Pembrokeshire Marine SAC, Pen Llyn a'r Sarnau SAC)				
Bottlenose dolphin, Harbour Porpoise	Disturbance/ injury from underwater noise	YES	In order to mitigate the impacts from underwater sound, the Applicant proposes a range of mitigation measures associated with underwater noise during the construction phase of the Proposed Development, which will include a 20-minute soft start and adoption of the JNCC guidelines for minimising the risk of injury to marine mammals from piling (JNCC, 2010). This will also involve a 30-minute pre-piling visual watch for absence of marine mammals with a mitigation zone by a qualified Marine Mammal Observer. A Marine Mammal Mitigation Plan (MMMP) is also proposed by the Applicant, to reduce the distance in which individuals may be injured and the number of individuals injured further, as they will be deterred beyond the predicted injury ranges. The requirement to submit a MMMP for approval can be secured within the Marine Licence.	YES
	Accidental Pollution	YES	The risk of accidental pollution events will be reduced and managed by the implementation of measures set out in standard post-consent plans,) such as an Environmental Management Plan (EMP), which will include a Marine Pollution Contingency Plan (MPCP). The MPCP will include best practice measures to prevent accidental spillage of chemicals during construction activities. An EMP will also be developed for the operational phase and manage the risks of all operational activities, including best practice measures to control pollution These plans are considered to be tertiary mitigation (standard sectoral practice as per Institute of Environmental Management and Assessment (IEMA) guidance on mitigation (IEMA, 2024)) and will include planning for accidental spills, address all potential contaminants that could be released, and include key emergency contact details. They will also set out good industry practice and	YES

			relevant guidelines for preventing pollution at sea (such as those from OSPAR, IMO, and MARPOL). As part of the Proposed Development design, the Applicant also proposes to develop various plans according to published guidelines and best working practices for the prevention of pollution events, including the development of, and adherence to a Construction Method Statement (CMS) along with a Code of Construction Practice (CoCP). The requirement to submit an EMP, MPCP, CMS and CoCP can be secured within the Marine Licence, in addition to standard pollution prevention practises which will be included in the Marine Licence conditions as standard.	
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4.3 Concluding the appropriate assessment of the plan or project alone

Table 4.3 Conclusion of the appropriate assessment alone	
(a) If Table 4.1, or the right hand column of Table 4.2 if applicable, is 'YES' for all features	It has been ascertained that the plan or project, when considered alone, will not adversely affect the integrity of any European sites.
(b) If there are any 'NO's in the right hand column of Table 4.2	It has not been ascertained that the plan or project, when considered alone, will not adversely affect the integrity of one or more European sites.
(c) Are there any residual effects of the plan or project (net of mitigation measures) which, though not adverse on their own, could be significant when considered in combination with the effects of other plans or projects?	NO

6. Conclusion

HRA is not required because there is no conceivable impact on any European sites. (As documented in section 2.1)	
HRA is not required because the whole of the plan or project is directly connected with or necessary to the management of one or more European sites, for the purposes of conserving the habitats or species for which the site(s) is/are designated, <u>and</u> the plan or project is not likely to have a significant effect on any other European sites. (As documented in section 2.2 and 2.3)	
This project is a renewal of a current permission which complies with NRW agreed criteria for ruling out likely significant effects of a renewal without conducting a project-specific LSE test. Therefore, it is considered not likely to have a significant effect on any European sites, either alone or in-combination with other plans or projects. (As documented in section 3.1 of this form)	
The plan or project has been screened for likelihood of significant effects and is considered not likely to have a significant effect on any European sites. (As documented in section 3.2 of this form, and section 5 if applicable)	
In light of the conclusions of an appropriate assessment it has been established that the plan or project will not adversely affect the integrity of any European sites, taking into account any conditions or restrictions as applicable, either alone or in-combination with other plans or projects. (As documented in section 4 of this form, and section 5 if applicable)	X
In light of the conclusions of the appropriate assessment, it has <u>not</u> been ascertained that the plan or project will not adversely affect the integrity of any European sites, as documented in section 4 of this form, and section 5 if applicable. Approval for the plan or project <u>cannot</u> be given unless either: - the plan or project specification, and/or the terms under which it might be approved, are modified so as to remove the risk of adverse effects, and a revised HRA is prepared, or - the plan or project (not being an SSSI consent*) satisfies the requirements for a derogation and a Derogation Notice is prepared and submitted for consideration by the appropriate authority, normally Welsh Ministers (*SSSI consents cannot be given as derogations)	
Signed:  Name: Emma Lowe Position: Lead Specialist Officer, Marine Licensing Team Date: 05/06/2026	
Was this HRA conclusion an escalated decision? YES or NO	NO

7. Consultation with the ANCB and how sections 2, 3, 4 and 5 of this HRA report (as applicable) take into account that advice.

Relevant section of the HRA report	Correspondence and/or meetings with the ANCB	Description of how the comments from the ANCB have been taken into account
2	Form 3 provided 10/07/2026 by Ryan Rees, Senior Marine Advisor, Marine Area Advice and Management Team	NRW Advisory agree with the conclusions of the HRA Assessment presented.

Appendix 1 – HRA Form 3

Appropriate nature conservation body (ANCB) response to an internal HRA consultation

This form should be completed by the team or individual providing the ANCB advice to the competent authority team

TO: Emma Lowe, Marine Licensing Team
FROM: Ryan Rees, Marine Area Advice and Management Team
SUBJECT: Habitats Regulations Assessment of CML2612

Thank you for consulting Marine Area Advice and Management Team on the above. Our comments are as follows:

We agree with the conclusion of the above mentioned HRA, with respect to the marine features of the West Wales Marine SAC, Bristol Channel Approaches SAC, North Anglesey Marine SAC, Cardigan Bay SAC, Pembrokeshire Marine SAC, River Teifi SAC and Pen Llyn a'r Sarnau SAC.

We agree that the project has been taken to appropriate assessment, and given the mitigation outlined, we agree with the conclusion that the project will not adversely affect the integrity of the above named Natura 2000 sites.

Signed:  Ryan Rees

Date: 10/07/26