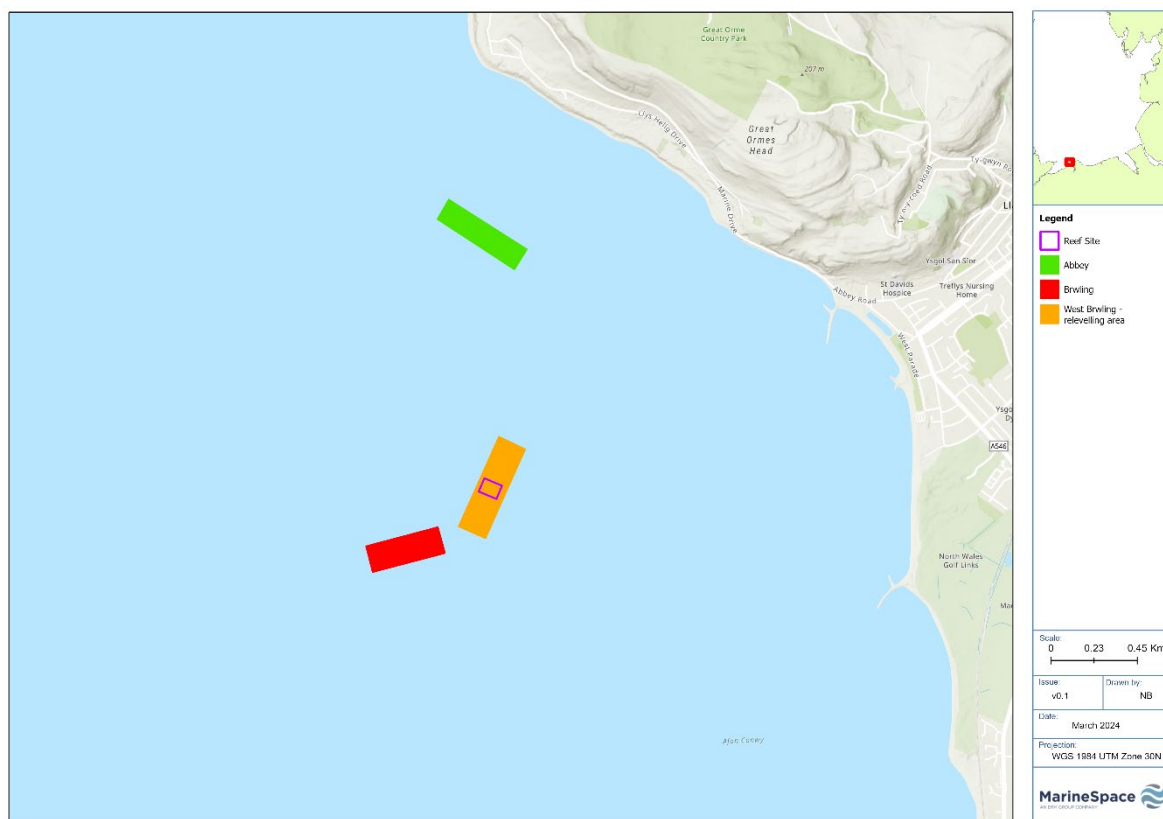


Appendix A: Conwy Wild Oysters Restoration Project: Habitats Regulations Assessment



Document Ref.: J/9/1/22	Originator: Liam Porter
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Appendix A: Conwy Wild Oysters Restoration Project: Habitats Regulations Assessment

Prepared by:

MarineSpace Ltd

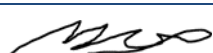
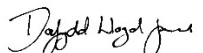
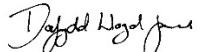
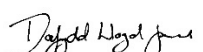
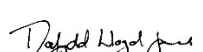
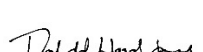


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1 Introduction

1.1 Background

MarineSpace Ltd (MarineSpace), an ERM Group Company, has been commissioned by the Zoological Society of London (ZSL) and partners Blue Marine Foundation (Blue Marine) and Bangor University, to produce this Habitats Regulations Assessment (HRA) and Marine Conservation Zone Risk Assessment (MCZRA) as a part of the Conwy Wild Oyster Restoration Project. This document focuses on the proposed re-levelling of a previously placed limestone gravel on the restoration site located within West Bwrling (southeast), Conwy Bay.

It is important to note that following future deployment of cultch and/or shell within the licensed West Bwrling site (Figure 1.1), re-levelling may also be required in the future. Therefore, the assessment conducted here covers the West Bwrling licensed site, currently licensed under DEML2284, and where cultch deployment has taken place.

This restoration project builds upon ZSL's and Blue Marine's previous work on native oyster restoration in the UK, as developed by the Solent Oyster Restoration Project and the Essex Native Oyster Restoration Initiative (ENORI). The Wild Oysters Project: Conwy Bay aims to restore native oyster habitat, with the wider aim of providing wider ecosystem service benefits. The project is using the following restoration approaches:

1. Phase 1 - suspended broodstock cages ('nurseries') containing aggregations of mature individuals (this phase of the project has been consented by NRW and is currently in progress with nurseries presently in the water at separate sites in Conwy);
2. Phase 2 - laying of cultch (shells and stones) and oysters onto the seabed to improve substrate availability and, therefore, seabed habitat for native oyster and other species.

The existing marine licence DEML2284, allows for cultch (locally sourced limestone gravel) to be deposited in 3 licensed sites, which have a total combined area of approximately 0.2 km². Under DEML2284, the project may deploy cultch multiple times over several years across these sites, scaling up to a maximum combined area of 0.05 km², notably lower than that of the overall licensed area. Of these sites, cultch was deposited at the West Bwrling Site between 08-21 June 2023, and now requires re-levelling. The area of the West Bwrling Site is 0.08 km². Re-levelling is required to ensure compliance with conditions stated in licence DEML2284, where deposition must not exceed 0.5 m above the surrounding seabed. All deposited material has remained within the West Bwrling marine licence area and within the specified coordinates. Re-levelling will only occur within the footprint of deposited material, and will not exceed the extent of the marine licence area.

This HRA/MCZRA report assesses potential impacts of the methods used for the re-levelling of cultch within the deposition area only, on any designated sites and qualifying features within 50 km of the proposed works. This 50 km buffer was used in place of species-specific seabird foraging ranges due to the small spatial scale and magnitude of effects associated with the re-levelling works. This buffer is in line with that used and accepted in the HRA for the deposition licence.

Table 1.1: Coordinates West Bwrling Site within the licence area

Latitude		Longitude	
West Bwrling			
3.8734793°W		53.3148517°N	
3.8756607°W		53.3154556°N	
3.8787716°W		53.3111689°N	
3.8765791°W		53.3105959°N	

Figure 1.1: Conwy Wild Oysters Restoration project sites and nearby Special Protection Areas and Special Areas of Conservation

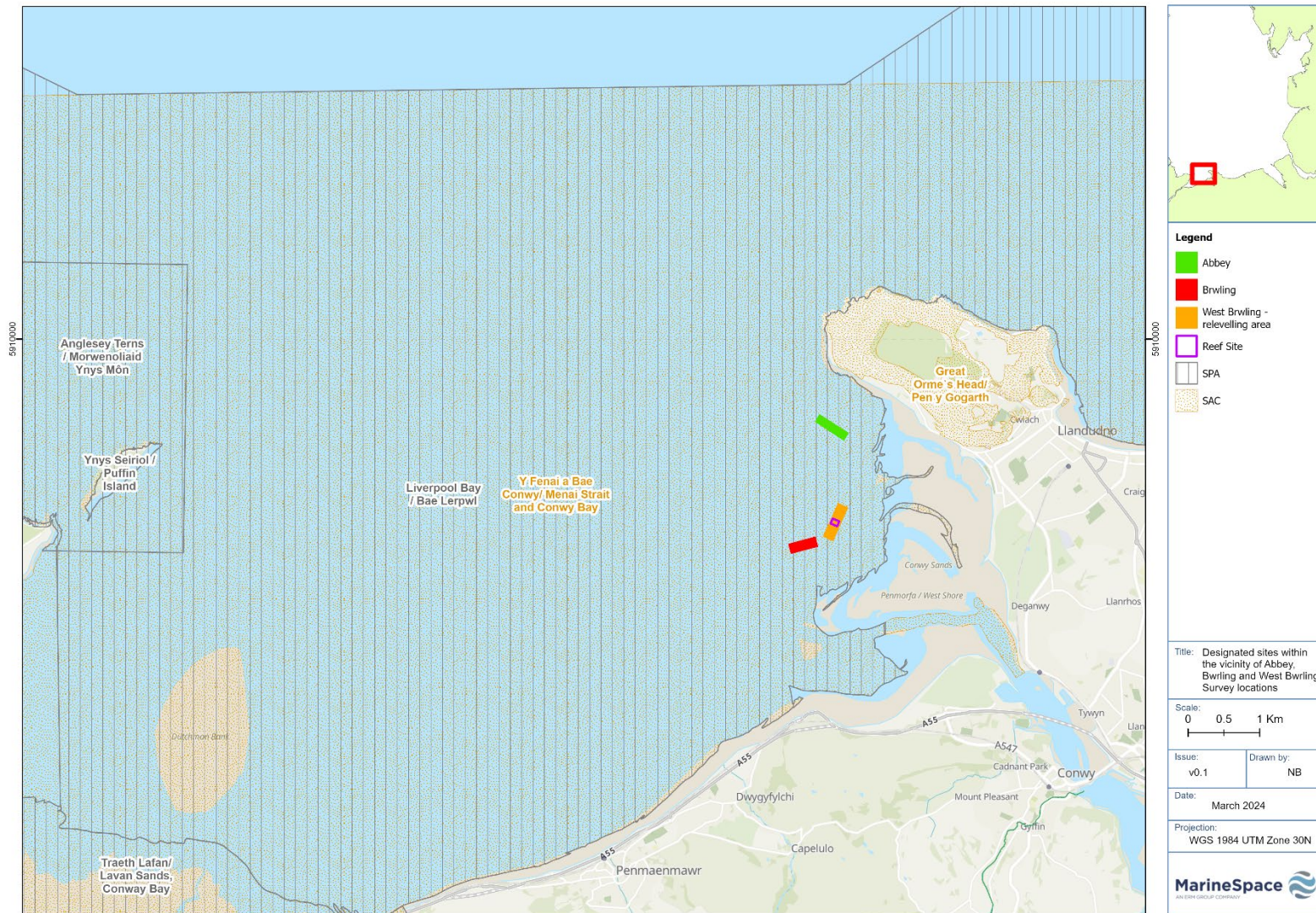
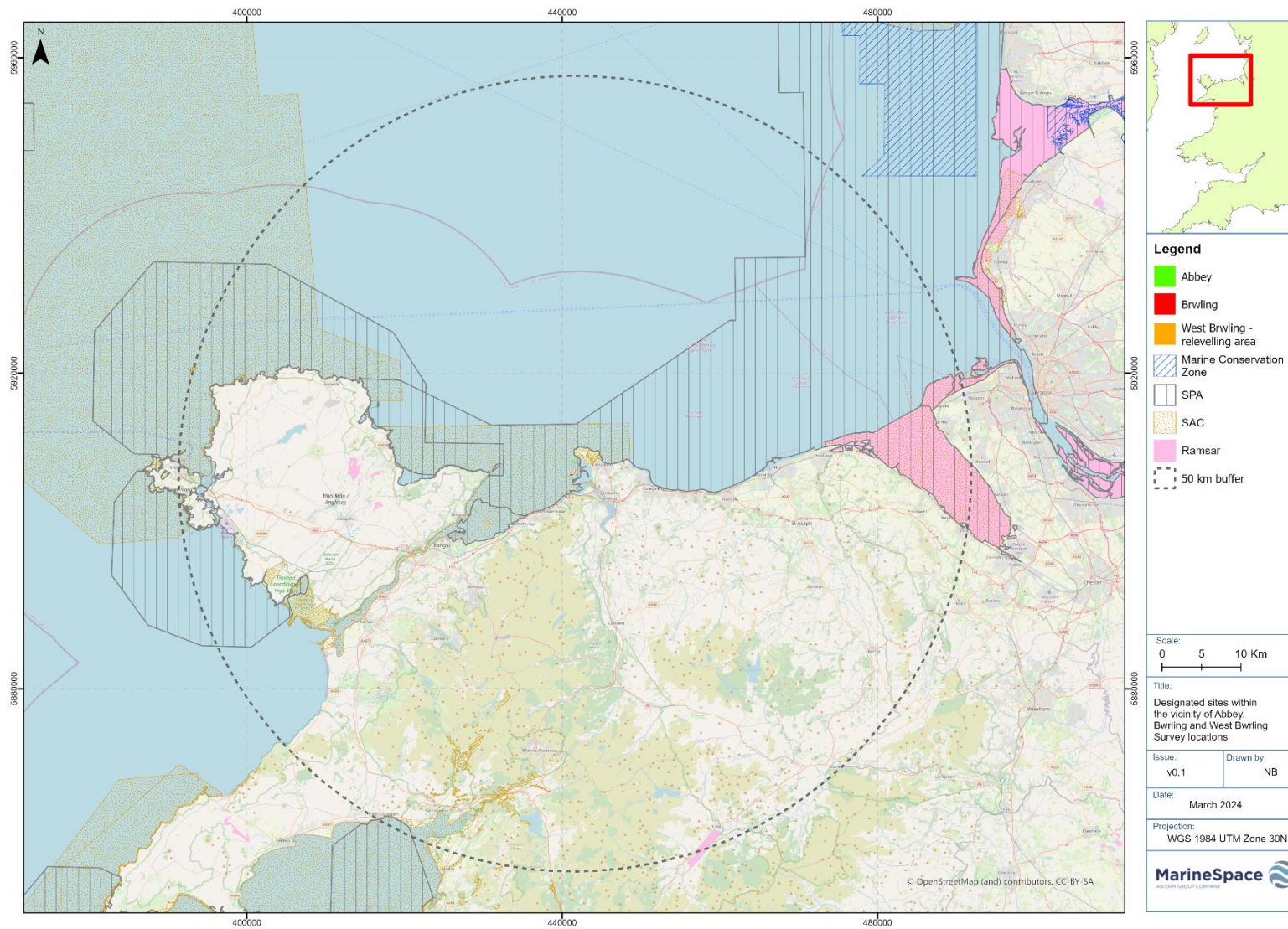


Figure 1.2: Conwy Wild Oysters Restoration project sites and 50 km buffer, Special Areas of Conservation, Special Protection Areas and Ramsar sites



1.2 Summary of Re-levelling

Please refer to the Site Information Document (SID) for a detailed project description and the post-deployment monitoring processes.

The proposed re-levelling of the seabed will occur within the boundaries of the West Bwrling Site and will occur over an area of up to 0.08 km². The re-levelling being applied for via this new MLA will, therefore, currently only be required to be undertaken within the boundaries of the West Bwrling Site. There is also potential for future re-levelling events until the expiration of the existing MLA DEML2284 on 05 December 2029. This allows for any possible future re-levelling that may need to be undertaken after successive cultch or shell deployments within the West Bwrling Site.

Depending on the size of peaks recorded during multibeam surveys within the licensed area of cultch deployment, either a small tug type vessel will tow a plough over the seabed, such as the *Saint David* tug vessel, or if peaks are found to have significantly reduced in size, a smaller inshore vessel with a long reach excavator arm, will be used. The chartered vessel would target the peaked areas identified from the bathymetric survey, using the specified equipment above, aiming to achieve a reef height of a maximum of 0.5 m, as stipulated within the original MLA DEML2284.

It should be noted that the re-levelling activities proposed to be undertaken would not result in the removal of any sediment or cultch from the water and/or seabed. Instead, gravel from the peaked areas would be redistributed into areas of less coverage within the licensed area.

The chartered vessel will use a modern navigation system and sounders. It is anticipated that the reef coordinates will be uploaded to this system to ensure that the re-levelling work remains within the existing licenced area. Furthermore, after the re-levelling works have been completed, the vessel will be able to check that all peaks have been levelled to a uniform reef height of a maximum of 0.5 m. A multibeam survey will be conducted after shell and oyster deployment, as soon as weather permits, as part of post-reef monitoring to assess the project footprint and reef height.

2 Approach to Assessment

2.1 Assessment Parameters

Table 2.1 presents a summary of the information provided in the SID and outlined in Section 1.2; this information has been used to inform the HRA and MCZRA.

Table 2.1: Summary of project details used to inform the Habitats Regulations Assessment

Parameter		Value
Spatial Extent	Area 3 (West Bwrling)	0.08 km ²
Water Depth	Area 3 (West Bwrling)	1 m (above ordnance datum)
Distance from Shore	Area 3 (West Bwrling)	1,600 m
Cultch	Timing (re-levelling)	Year Round
	Volume	<5,000 m ³
	Height	≤ 0.5 m
	Spatial Extent (Cultch laying, as currently licensed)	0.05 km ² (225 × 225 m)
	Spatial Extent (re-levelling, contained within currently licensed areas)	≤ 0.05 km ²
Native Oyster <i>Ostrea edulis</i>	Timing	Year-round
	Density (average across site, as currently licensed) ¹	1 per 1 m ²
	Total Count (as currently licensed)	50,000
Post-introduction Monitoring	Geophysical	Multibeam bathymetry
	Physical	Sediment grab samples
	Biological	Underwater video
Vessels	Cultch Deposition (as currently licensed)	Hopper/flat-bottomed barge/landing craft/mussel dredger, or similar
	Oyster Introduction (as currently licensed)	Small inshore vessel/mussel dredger, or similar

¹ NB: Oyster density provided is across all three licensed areas, not just the West Bwrling licence area.

Parameter		Value
	Re-levelling (as covered within this assessment)	Small inshore vessel/tug vessel, or similar
	Surveys (as currently licensed)	Small inshore survey vessel

2.2 Habitats Regulations Assessment

2.2.1 Habitats Regulations Assessment Legislation

This document has been produced to inform the HRA screening process for the Conwy Oyster Restoration Project – Re-levelling of Cultch. It provides information to enable the screening of the application with respect to its potential to have a Likely Significant Effect (LSE) on any qualifying feature of a Natura 2000 site.

Following the United Kingdom's (UK's) exit from the European Union (EU), and the end of the transition period on the 31 December 2020, legislation has been passed to remove the domestic constitutional basis for EU law in the UK. However, The Conservation of Habitats and Species Regulations 2017² (as amended) and The Conservation of Offshore Marine Habitats and Species Regulations 2017³ (as amended) transpose the EU Habitats Directive (Council Directive 92/43/EEC)⁴ and certain elements of the Wild Birds Directive (Directive 2009/147/EC)⁵ (known together as the Nature Directives) into UK law. All European protected sites and species retain the same level of protection now that the UK has left the EU. However, the 2019 Conservation Regulations now provide for the creation of a “*national site network*” within the UK territory. This is comprised of the European protected sites already designated under the Nature Directives (Natura 2000 network) and any further sites designated after exit day under the 2019 Regulations.

References to “European sites” and “Natura 2000 sites” throughout this report, are to be read as references to either European sites and Natura 2000 sites within the European Union, or “European sites within the UK national site network”⁶ designated before the UK left the EU; or designated after the UK left the EU under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

² <https://www.legislation.gov.uk/uksi/2017/1012/contents/made>

³ <https://www.legislation.gov.uk/uksi/2017/1013/contents/made>

⁴ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043>

⁵ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147>

⁶ As defined by Regulation 3 of the Conservation of Habitats and Species Regulations 2017.

Sites within the Natura 2000 network are predominantly defined as Special Areas of Conservation (SACs), Special Protection Areas (SPAs), and Sites of Community Importance (SCIs). UK Government policy (ODPM, 2005) states that internationally important wetlands designated under the Ramsar Convention 1971 (Ramsar sites and potential Ramsar sites) are afforded the same protection as SPAs and SACs, for the purpose of considering development proposals that may affect them. Therefore, Ramsar sites have also been considered within this HRA screening report.

HRA guidance (PINS, 2017; EC, 2018) sets out stages for assessment of the effects of projects or plans on designated sites.

The HRA process comprises 4 main stages, which are:

- **Stage 1 Screening** to identify the likely impacts of a project on a European site and consider whether the impacts are likely to be significant;
- **Stage 2 Appropriate Assessment** to determine whether the integrity of the European site will be adversely affected by the project;
- **Stage 3 Assessment of Alternative Solutions** to establish if there are any that will result in a lesser effect on the European site; and
- **Stage 4 Imperative Reasons of Overriding Public Interest (IROPI) and Compensatory Measures** to establish whether it is necessary for the project to proceed despite the effects on the European site, and to confirm that necessary compensatory measures are in place to maintain the coherence of the Natura 2000 network.

Stages 3 and 4 are now considered together under **Derogation** by the UK Government.

This report contains the Screening Stage, where identification of LSE is reported for sites and species, and the RIAA. For the purpose of this report, the Hoskin and Tyldesley (2006) definition of LSE is used:

“...any effect that may reasonably be predicted as a consequence of a plan or project that may significantly affect the conservation or management objectives of the features for which the site was designated, but excluding trivial or inconsequential effects [de minimis]”.

2.2.1.1 Stage 1: Screening

The screening stage examines the likely effects of a project either alone, or in combination with other projects and plans on a Natura 2000 site or Ramsar site and seeks to answer the question “*can it be concluded that no likely significant effect will occur?*”. To determine if the activities in question are likely to have any significant effects on the designated site the following issues will be considered:

- Could the proposals affect the qualifying interest and is the qualifying interest sensitive or vulnerable to the effect;
- The probability of the effect happening;
- The likely consequences for the conservation objectives of the site should the effect occur; and
- The magnitude, duration, and reversibility of the effect.

Outcomes of the screening stage will allow determination of 1 of the following 3 conclusions:

1. No likely significant effect;
2. A likely significant effect; and
3. It cannot be concluded that there will be no likely significant effect.

Where the assessment concludes outcomes 2 or 3, then the need for an AA will be triggered.

Screening for likely significant effect will ensure compliance with the 'Managing Natura 2000 sites guidance' (EC, 2018). The 2018 EC guidance included how to take account of recent case law such as the Court of Justice of the European Union (CJEU) case law 'People Over Wind & Sweetman (Case C 323/17)'. The CJEU's ruling in 'People Over Wind' – that it is not appropriate at the screening stage of HRA to take account of measures to avoid or reduce harmful effects on a Natura 2000 site or Ramsar site – will be fully considered and applied.

Therefore, screening for likely significant effects is based solely upon the presence/absence of a spatial interaction between pressure envelopes/footprints (direct or indirect) (from activity/sub activities associated with plan or project) and the boundary of any designated site.

2.2.1.2 Stage 2: Appropriate Assessment

The aim of an AA is to assess whether the proposals will have any adverse effects on the integrity of any Natura 2000 site. There is no legal definition of the term 'integrity' within the UK Habitats Regulations or the EU Directive. However, the Managing Natura 2000 sites guidance (EC, 2018) define integrity as:

"...the coherent sum of the site's ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated".

The AA should answer the question *"can it be demonstrated that the proposals will not adversely affect the integrity of the site?"* focusing on the qualifying features for which the site is designated. In accordance with the Waddenzee judgment (ECJ Case 127/02), the European Court of Justice ruled that a plan or project may be authorised only if a competent authority has made certain that the plan or project will not adversely affect the integrity of the site. *"That is the case where no reasonable scientific doubt remains as to the absence of such effects"*.

The decision on whether the integrity of the site could be adversely affected by the proposals should focus on, and be limited to, the site's conservation objectives.

The conservation objectives set out what needs to be achieved for the Natura 2000 site to make the appropriate contribution to the conservation status of the features for which the site is designated, and thus deliver the aims of the Habitats and Birds Directives, i.e. favourable conservation status for the designated sites as described under the Conservation of Habitats and Species Regulations 2017 (as amended).

The assessment also accounts for any avoidance or mitigation measures which will be implemented to avoid or reduce the level of impact from the activity. The competent authority may also consider the use of further/additional conditions or restrictions to help avoid adverse effects on site integrity.

If the AA concludes that the proposals will not adversely affect the integrity of the national site network, either alone or in combination with other plans and projects, then permission may be granted. However, if the AA concludes that there will be an adverse effect on the integrity of the Natura 2000 site, or that there is uncertainty and a precautionary approach is taken, then consent can only be granted through a derogation process, if there are no alternative solutions, and there are IROPI and compensatory measures have been secured.

2.3 Marine Conservation Zone Risk Assessment

There are no Marine Conservation Zones (MCZs) within a 50 km radius of the project sites within Conwy Bay (Figure 1.2). A radius of 50 km was chosen as this is an appropriate size for the small-scale seabed operations associated with re-levelling. Furthermore, no issues related to bird foraging ranges are expected. The nearest MCZ is the Fylde MCZ, located approximately 50.8 km to the northeast. Due to the distance between MCZs and the project sites, and the small spatial and temporal scale of the proposed works, all MCZs are screened out and **No Likely Significant Risk** is determined. Therefore, the proposed works do not proceed past the Screening stage, and a full MCZ Risk Assessment (MCZRA) is not required.

3 Habitats Regulations Assessment Stage 1: Screening for Likely Significant Effect

Due to the small spatial and temporal scale of potential impact associated with the project, screening for SACs, SPAs, and Ramsar Sites was conducted based on a 50 km radius around the project sites and the expectation of no impacts on bird foraging ranges (Figure 1.2). Although only a small proportion of one site is going to be utilised for the project, a 50 km search radius was applied to all 3 sites cumulatively. Any SAC, SPA or Ramsar Site within 50 km, which interacts with or has designated features that interact with the marine environment was screened in for Likely Significant Effect (LSE). In the case that no LSE could not be determined, or if LSE was determined, the sites were taken forward to Stage 2 of the HRA process: Appropriate Assessment.

3.1 Screening for Special Areas of Conservation

There are 4 SACs with marine components within 50 km of the project sites (Figure 1.2):

- Y Fenai a Bae Conwy/Menai Strait and Conwy Bay SAC (UK0030202);
- Dee Estuary/Aber Dyfrdwy SAC (UK0030131);
- Bae Cemlyn/Cemlyn Bay SAC (UK0030114); and
- North Anglesey Marine/Gogledd Môn Forol SAC (UK0030398).

3.1.1 Y Fenai a Bae Conwy/Menai Strait and Conwy Bay Special Area of Conservation

3.1.1.1 Site Overview

All 3 of the project sites are located entirely within Y Fenai a Bae Conwy/Menai Strait and Conwy Bay SAC. The designated features and conservation objectives of Y Fenai a Bae Conwy/Menai Strait and Conwy Bay SAC are presented in Table 3.1. The extent, distribution, structure, and function of the designated features within the SAC are displayed in Figure 3.1. As shown in Figure 3.1, the sites overlap with the Annex I feature of Large shallow inlets and bays as well as potential reef features, as such direct interaction is possible. Additionally, features which can only be affected by secondary impacts (i.e. there is no direct overlap) include mudflats and sandflats not covered by sea water at low tide; sandbanks, and reefs. Due to the small spatial extent of impacts and the small scale of the project, there is no spatial interaction with the submerged or partially submerged sea caves feature of the SAC, and as such, this feature is screened out.

Table 3.1: Overview of Y Fenai a Bae Conwy/Menai Strait and Conwy Bay Special Area of Conservation

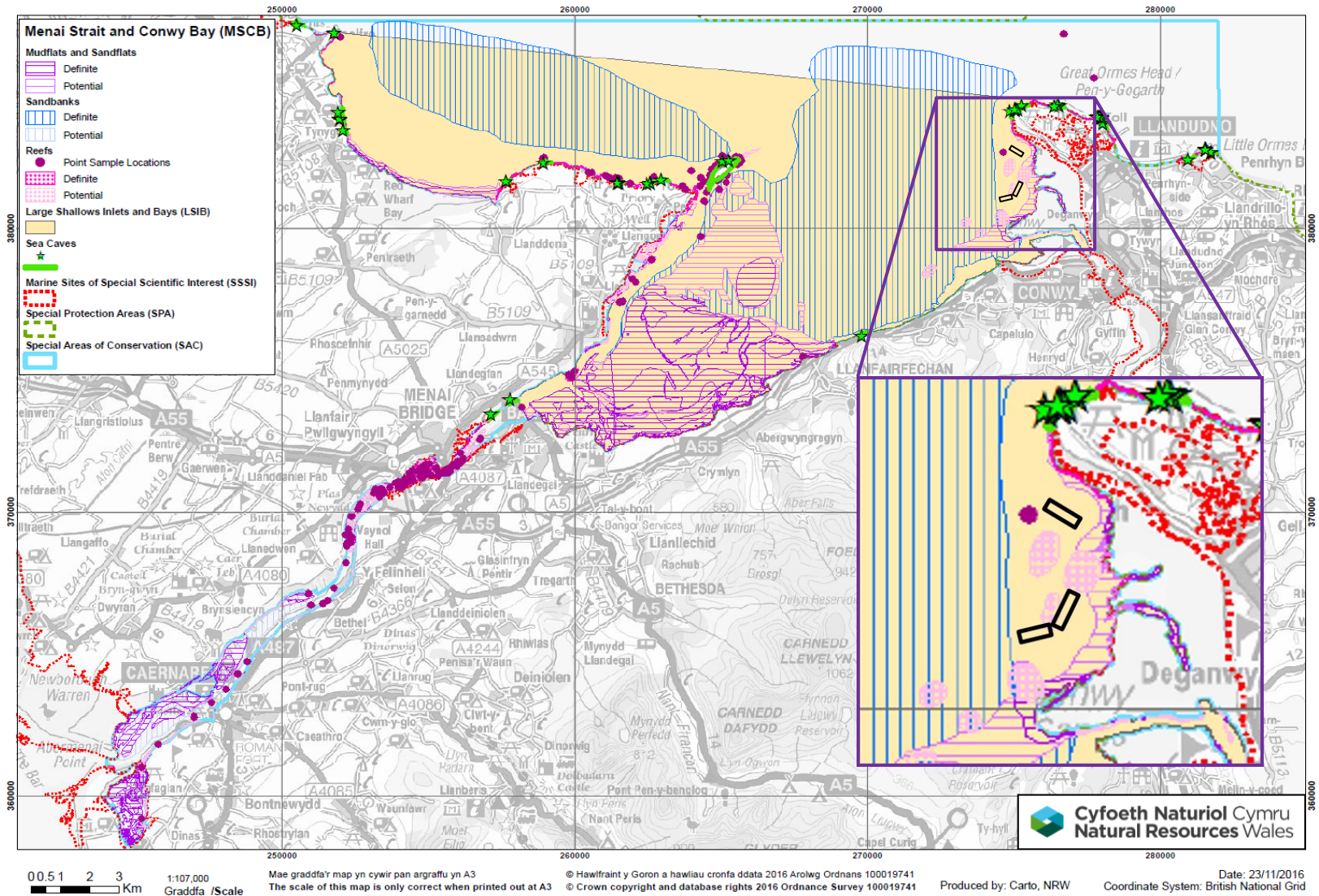
Y Fenai a Bae Conwy / Menai Strait and Conwy Bay SAC (UK0030202)	
https://naturalresources.wales/media/688114/sac_uk0030202_enreg_37.pdf	
Qualifying Features	Annex I Habitats • Mudflats and sand flats not covered by sea water at low tide; • Reefs; • Sandbanks slightly covered by sea water all the time; • Large shallow inlets and bays; • Submerged or partially submerged sea caves.
Conservation Objectives (NRW, 2018a)	5.2.2 Range <i>The overall distribution and extent of the habitat features within the site, and each of their main component parts is stable or increasing.</i> <i>For the intertidal mudflats and sandflats feature these include;</i> • <i>Muddy gravel communities</i> • <i>Dwarf eelgrass, Zostera noltei beds</i> • <i>Sediment communities at Traeth Lafan</i> <i>For the reef feature these include;</i> • <i>Reef communities in high energy wave-sheltered, tide-swept conditions</i> • <i>Under-boulder, overhang and crevice communities</i> • <i>Limestone reef communities</i> • <i>Clay outcrop reef communities</i> <i>For the large shallow bay feature these include;</i> • <i>Organically enriched muddy sediment areas</i>

	5.2.3 Structure and function <i>The physical biological and chemical structure and functions necessary for the long-term maintenance and quality of the habitat are not degraded. Important elements include;</i> • <i>Geology</i> • <i>Sedimentology</i> • <i>Geomorphology</i> • <i>Hydrography and meteorology</i> • <i>Water and sediment chemistry</i> • <i>Biological interactions.</i> <i>This includes a need for nutrient levels in the water column and sediments to be:</i> • <i>At or below existing statutory guideline concentrations</i> • <i>Within ranges that are not potentially detrimental to the long term maintenance of the feature's species populations, their abundance and range.</i> <i>Contaminant levels in the water column and sediments derived from human activity to be:</i> • <i>At or below existing statutory guideline concentrations</i> • <i>Below levels that would potentially result in increase in contaminant concentrations within sediments or biota</i> • <i>Below levels potentially detrimental to the long-term maintenance of the feature species populations, their abundance or range taking into account bioaccumulation and biomagnification.</i> <u><i>Restoration and recovery</i></u> <i>This includes the need for restoration of some reef features such as underboulder, overhang and crevice communities, and of some mudflat and sandflat features such as the muddy gravel habitats and sheltered muddy habitats. All of these habitats are also part of the large inlets and bays feature.</i> 5.2.4 Typical Species <i>The presence, abundance, condition and diversity of typical species is such that habitat quality is not degraded. Important elements include:</i> • <i>Species richness</i> • <i>Population structure and dynamics</i> • <i>Physiological health</i> • <i>Reproductive capacity</i>
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Y Fenai a Bae Conwy / Menai Strait and Conwy Bay SAC (UK0030202)	
	• <i>Recruitment</i> • <i>Mobility</i> • <i>Range.</i> <i>As part of this conservation objective it should be noted that:</i> • <i>Populations of typical species subject to existing commercial fisheries need to be at an abundance equal to or greater than that required to achieve maximum sustainable yield and secure in the long term</i> • <i>The management and control of activities or operations likely to adversely affect the habitat feature is appropriate for maintaining it in favourable condition and is secure in the long term.</i>

Figure 3.1: Y Fenai a Bae Conwy/Menai Strait and Conwy Bay Special Area of Conservation designated feature map (from: NRW, 2016)

Note: The project sites within Conwy Bay are represented by **black** outlines



3.1.1.2 Screening for Likely Significant Effect

NRW's advice, provided under Regulation 37 of the Conservation of Habitats and Species Regulations 2017, for Y Fenai a Bae Conwy / Menai Strait and Conwy Bay SAC⁷ has been used to screen for LSE. Where NRW (2018a) has identified that a pressure associated with the proposed works may interact with a feature of the SAC, that pressure has been screened in for potential LSE. Dredging activities have been used as these most closely resemble activities under the proposed works. In addition to the pressures identified by NRW (2018a) (Table 3.2), the following pressures are assessed:

- Abrasion/disturbance of the substrate on the surface of the seabed;
- Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion; and
- Physical change (to another seabed type).

Table 3.2: Summary of advice on operations for activities related to the proposed works (Source: NRW, 2018a)

Activity	Relevant Factors	Features				Most likely relevant components and effects
		Mud and Sand Flats	Reefs	Sandbanks	Inlets and Bays	
Vessel movement through the SAC before, during and after re-levelling	<u>Geophysical regime</u> : modification of hydrodynamic regime & sediment transport processes; alteration / loss of substrate.	✓	✓	✓	✓	<u>Structure and function</u> : habitat loss and change; noise/visual disturbance effecting mobile species particularly mammals; modification to local hydrodynamic regime effecting exposure sensitive communities/species; elevated suspended sediments and contaminants limiting growth of benthic flora, smothering sessile benthic fauna and increasing likelihood of toxic bioaccumulation; modification to sediment transport leading to changes in local habitat structure; modification to biological processes including food contamination and availability, and changes to biological interactions due to loss and modification of habitat and physical factors.

⁷ https://naturalresources.wales/media/688114/sac_uk0030202_enreg_37.pdf

Activity	Relevant Factors	Features				Most likely relevant components and effects
		Mud and Sand Flats	Reefs	Sandbanks	Inlets and Bays	
	<u>Fundamental environmental parameters:</u> changes to available oxygen; turbidity; suspended sediments <u>Environmental quality:</u> increased suspended nutrients; remobilisation of toxic & non-toxic contaminants (increasing bioavailability) <u>Physical disturbance:</u> displacement, abrasion, smothering, visual, noise Other factors: removal of biota					<u>Conservation status of typical species and species features:</u> alteration/reduction in species/community diversity and extent. Also an alteration/reduction in quality of communities/populations containing species sensitive to changes in turbidity, light, oxygen, smothering and toxic contaminants (particularly shallow subtidal algal and eelgrass communities, species-rich sediment infaunal communities, sponge communities). <u>Operation specific information required:</u> location, extent, scale, frequency, timing and duration; materials (paint, cleaning agents etc.) used; relevant site-specific biotic and abiotic information.
Dredging: Maintenance	<u>Geophysical regime:</u> modification of hydrodynamic regime & sediment transport processes; alteration / loss of substrate	✓	✓	✓	✓	<u>Structure and function:</u> habitat modification; noise/visual disturbance effecting mobile species particularly mammals; modification to local hydrodynamic regime effecting exposure sensitive communities/species; elevated suspended sediments limiting growth of benthic flora, and smothering sessile benthic fauna; modification to sediment transport leading to changes in local habitat structure; remobilisation of toxic and non-toxic contaminants (increasing bioavailability) modification to biological processes including food contamination and availability, and changes to biological interactions due to modification of habitat and physical factors.

Activity	Relevant Factors	Features				Most likely relevant components and effects
		Mud and Sand Flats	Reefs	Sandbanks	Inlets and Bays	
	<u>Fundamental environmental parameters:</u> changes to available oxygen; turbidity; suspended sediments <u>Environmental quality:</u> increased suspended nutrients; toxic and non toxic contaminants <u>Physical disturbance:</u> displacement, abrasion, smothering, visual, noise <u>Other factors:</u> removal of biota					<u>Conservation status of typical species and species features:</u> alteration/reduction in species/community diversity and extent. Also an alteration/reduction in quality of communities/populations containing species sensitive to changes in turbidity, light, oxygen, smothering and toxic contaminants (particularly shallow subtidal algal and eelgrass communities, species-rich sediment infaunal communities, sessile faunal turf communities). <u>Operation specific information required:</u> location, extent, scale, frequency, timing and duration; materials (paint, cleaning agents etc.) used; relevant site-specific biotic and abiotic information.

3.1.1.2.1 Interaction with Annex I Habitat Features and Project Site Refinement

Geophysical surveys were undertaken across the full extent of the original project sites in order to identify specific areas suitable for deployment. Acoustic seabed data was collected including Multibeam Echosounder (MBES) and backscatter, along with drop down video (DDV) imagery and grab samples were collected across the 3 project sites (Abbey: 0.38 km²; Bwrling: 0.41 km²; and West Bwrling: 0.42 km²) in 2022 to inform this habitat assessment report. Seabed habitats were mapped to EUNIS BSH Level 3 through interpretation of geophysical data alongside analysis of environmental data (DDV imagery) to identify Annex I habitats. This interpretation was used to identify license areas in MLA DEM2284 suitable for deployment and to avoid areas of Annex I Reef habitat within the sites. Annex I reef was included in previous HRA and was screened out as there was considered no overlap. The re-levelling site at West Bwrling,

Conwy Bay is defined as areas where cultch is already deployed or already licensed to be deployed. Therefore, no overlapping with the reef features will occur.

3.1.1.2.2 Screening for Likely Significant Effect

Where NRW (2018a) identifies a potential interaction between a pressure associated with the proposed works and a sensitive feature of each of the SACs under consideration, these pressure-receptor interactions have been assessed in Table 3.3 for spatial or temporal overlap. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is screened in for Appropriate Assessment.

Table 3.3: Screening for Likely Significant Effect on Y Fenai a Bae Conwy/Menai Strait and Conwy Bay Special Area of Conservation

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
Abrasion/disturbance of the substrate on the surface of the seabed	Annex I Habitats • Mud flats and sand flats; • Sandbanks; • Large shallow inlets and bays.	No Likely Significant Effect (LSE)	Operations will redistribute previously-introduced cultch material where it exceeds 50 cm in height above the surrounding seabed. Re-levelling operations will not exceed the boundaries of the sites already licensed for deployment of cultch. Abrasion/disturbance to the seabed resulting from the re-levelling of cultch is not predicted to cause LSE to any of the features of the site.
Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion	Annex I Habitats • Mud flats and sand flats; • Sandbanks; • Large shallow inlets and bays;	No LSE	The proposed works involve re-levelling of cultch already deployed under the existing licence. As such no penetration and/or disturbance below the surface of the seabed is expected. No Likely Significant Effect on all features assessed is determined for this pressure.
Physical change (to another seabed type)	Annex I Habitats • Mud flats and sand flats; • Sandbanks; • Large shallow inlets and bays.	No LSE	Placed limestone gravel/cultch will be redistributed on subtidal sands and/or gravels, remaining within areas where cultch has already been deposited under the existing licence. The redistributed material is expected to drop straight down to the seabed and will not be transported over areas of

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
			Annex I reef or areas outside the area covered by the existing licence, by tidal currents).
Oxygen depletion	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	No LSE	Oxygen depletion. Deoxygenation is often associated with the artificial introduction of nutrients or organic enrichment of an environment, however, it can also be a result of stagnant water arising from reduced current flow. The project involves re-levelling of already deployed cultch (limestone gravel) and subsequent growth of oyster bed habitat in the shallow subtidal zone. No nutrients will be introduced to the environment, and the introduced material will not exceed 50 cm above the current seabed level, nor will re-levelling exceed the extent of cultch deployed under the existing licence; therefore, oxygen depletion will not occur through the aforementioned pathways. As such, No Likely Significant Effect on all features is determined for this pressure.
Toxic and non-toxic contamination	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	Screened Out	Toxic and non-toxic contamination. No new material is being added, only the previously deposited cultch is being redistributed. As such, No Likely Significant Effect on all features is determined for this pressure.
Nutrient and organic enrichment	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	Screened Out	Nutrient and organic enrichment. No nutrients or organic material will be added to the environment as only the redistribution of the previously added cultch will occur. As such, No Likely Significant Effect on all features is determined for this pressure.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
Addition of pesticides and antifoulants	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	No LSE	Addition of pesticides and antifoulants. No pesticides or antifoulants are proposed for use in the project. As such, No Likely Significant Effect on all features is determined for this pressure.
Introduction of non-native species	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	Screened Out	Introduction of non-native species. No new material is being added, only the previously deposited cultch is being redistributed. As such, No Likely Significant Effect on all features is determined for this pressure. The chartered vessels, including the <i>Saint David</i> tug vessel has been sourced locally and came out of a dry dock in May 2023, after which antifouling was carried out. The plough has been out of water for over 3 years and is additionally stored out of water when not in use, thus reducing the risk of invasive non-native species (INNS)
Geophysical regime: substrate erosion, local modification of wave regime exposures. Fundamental environmental parameters: turbidity	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	No LSE	Substrate erosion, local modification of wave regime exposures, and turbidity. The proposed works are of a very small scale and will not exceed 50 cm above relative seabed level. The increase in seabed height may result in some waves breaking sooner, however, due to the small spatial scale, this is not expected to result in significant effect. Overall effects on local and regional hydrological conditions, including sediment transport pathways, will be minimal and are not considered significant. However, it is noted that some sediment may be resuspended during re-levelling of the cultch. Sediment plume effects, including increases in suspended sediment concentration and turbidity, are expected to be minimal, with some minor resuspension of sediment possible during

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
			re-levelling of cultch or oyster deployment. Nevertheless, this elevation in turbidity will only be for a limited period of time and sediment deposition that does occur will only affect the seabed surface layer. Additionally, suspended sediment concentration is expected to dissipate and return to natural levels within 1-2 tidal cycles. Further to this, the overall project (reintroduction of native oysters) is likely to result in a decrease in suspended sediment concentration in the long-term through biofiltration (Mara <i>et al.</i>, 2021). As such, No Likely Significant Effect on all receptors is determined for this pressure.
Physical disturbance: collision, noise, and visual.	Annex I Habitats • Mud flats and sand flats; • Reefs; • Sandbanks; • Large shallow inlets and bays; • Sea caves.	No LSE	Physical disturbance. There are no species features of the SAC however, re-levelling will directly interact with the seabed within the license area which is within the 'Large shallow inlet and bays' SAC feature. Although, the re-levelling activities will be confined to the boundaries of the currently licensed sites and will directly interact with deposited material only. As such, No Likely Significant Effect is determined for this pressure.

3.1.2 Dee Estuary/Aber Dyfrdwy Special Area of Conservation

3.1.2.1 Site Overview

The Conwy Bay project sites are located approximately 32 km to the west of Dee Estuary/Aber Dyfrdwy SAC. The designated features and conservation objectives of Dee Estuary/Aber Dyfrdwy SAC are presented in Table 3.4.

Table 3.4: Overview of Dee Estuary/Aber Dyfrdwy Special Area of Conservation

Dee Estuary / Aber Dyfrdwy SAC (UK0030131)	
https://naturalresources.wales/media/673576/dee-estuary-reg33-volume-1-english-091209_1.pdf	
Qualifying Features	Annex I Habitats • Estuaries; • Mudflats and sandflats not covered by seawater at low tide; • <i>Salicornia</i> and other annuals colonising mud and sand; • Atlantic salt meadows; • Annual vegetation of drift lines. Annex II Species • River lamprey <i>Lampetra fluviatilis</i>; • Sea lamprey <i>Petromyzon marinus</i>.
Conservation Objectives (NE and CCW, 2010)	6.1 Interest feature 1: The conservation objective for the estuary <i>The conservation objective for the “estuaries” feature of the Dee Estuary SAC is to maintain the feature in favourable condition, as defined below:</i> <i>The “estuaries” feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</i> <i>i. the aggregate total extent of all estuarine communities within the site is maintained;</i> <i>ii. the spatial distribution of estuarine communities within the site is maintained;</i> <i>iii. the extent of individual estuarine habitat features within the site is maintained;</i>

Dee Estuary / Aber Dyfrdwy SAC (UK0030131)	
	iv. <i>the variety and relative proportions of sediment and rocky substrates within the estuary is maintained;</i> v. <i>the variety and extent of any notable subtidal sediment communities is maintained;</i> vi. <i>the variety and extent of notable intertidal hard substrata communities is maintained;</i> vii. <i>the spatial and temporal patterns of salinity, suspended sediments and nutrients concentrations are maintained within limits sufficient to satisfy the requirements of statements (i) to (vi) above.</i> 6.2 Interest feature 2: The conservation objective for mudflats and sandflats not covered by seawater at low tide <i>The conservation objective for the “mudflats and sandflats” feature of the Dee Estuary SAC is to maintain the feature in favourable condition, as defined below:</i> <i>The “mudflats and sandflats” feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</i> i. <i>the total extent of mudflat and sandflat communities within the site is maintained;</i> ii. <i>the proportions of individual mudflat and sandflat communities within the site are maintained;</i> iii. <i>the topography of the intertidal flats and the dynamic processes of channel migrations and sinuosity across the flats are maintained;</i> iv. <i>the abundance of typical species of the mudflat and sandflat feature within the site is maintained.</i> 6.3 Interest feature 3: The conservation objective for Salicornia and other annuals colonising mud and sand <i>The conservation objective for the “Salicornia and other annuals colonising mud and sand” feature of the Dee Estuary SAC is to maintain the feature in favourable condition, as defined below:</i> <i>The “Salicornia and other annuals colonising mud and sand” feature will be considered to be in favourable condition when both:</i> • <i>subject to natural processes, each of the following conditions (i) to (vi) are met:</i> i. <i>the total extent of pioneer saltmarsh vegetation communities within the site is maintained;</i> ii. <i>the presence of pioneer saltmarsh vegetation communities as part of transitions from intertidal sediment communities to higher saltmarsh are maintained;</i> iii. <i>the abundance of the typical species of the pioneer saltmarsh vegetation communities is maintained;</i> iv. <i>the abundance of notable species of the pioneer saltmarsh vegetation communities is maintained.</i> • <i>and, regardless of natural processes, condition (v) is also met:</i> i. <i>the overall extent of and abundance of common cord grass Spartina anglica is not increasing within the pioneer saltmarsh zone.</i>

	6.4 Interest feature 4: The conservation objective for Atlantic salt meadow The conservation objective for the “Atlantic salt meadow” feature of the Dee Estuary SAC is to maintain the feature in favourable condition, as defined below: <i>The “Atlantic salt meadow” feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</i> <i>(i) the total extent of Atlantic salt meadow vegetation communities within the site is maintained;</i> <i>(ii) the proportions of individual Atlantic salt meadow vegetation communities within the site are maintained;</i> <i>(iii) the zonation of Atlantic salt meadow vegetation communities and their transitions to fresh water and terrestrial vegetation are maintained;</i> <i>(iv) the morphology of saltmarsh creeks and pans and the process of their evolution are maintained;</i> <i>(v) the extent of ungrazed areas of salt meadow within the estuary is maintained and there is no increase in grazing intensity over the rest of the salt meadow;</i> <i>(vi) the relative abundance of the typical species of the Atlantic salt meadow vegetation communities is maintained;</i> <i>(vii) the abundance of the notable species of the Atlantic salt meadow vegetation communities is maintained.</i> 6.5 Interest feature 5: The conservation objectives for annual vegetation of drift lines The conservation objective for the “annual vegetation of drift lines” feature of the Dee Estuary SAC is to maintain the feature in a favourable condition, as defined below: <i>The “annual vegetation of drift lines” feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</i> <i>i. the extent of coarse sediment / shingle formations capable of supporting drift line vegetation communities within the site is maintained;</i> <i>ii. the presence of annual drift line vegetation communities within the site is maintained;</i> <i>iii. the presence of typical species of the annual drift line vegetation communities is maintained.</i> 6.6 Interest feature 6: The conservation objective for Lampetra fluviatilis (river lamprey) The conservation objective for the “Lampetra fluviatilis (river lamprey)” feature of the Dee Estuary SAC is to maintain the feature in a favourable condition, as defined below: <i>The “river lamprey” feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</i> <i>i. the migratory passage of both adult and juvenile river lamprey through the Dee Estuary between Liverpool Bay and the River Dee is unobstructed by physical barriers and / or poor water quality;</i>
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Dee Estuary / Aber Dyfrdwy SAC (UK0030131)	
	ii. <i>the five year mean count of river lampreys recorded by the Chester Weir fish trap is no less than 55 under the monitoring regime in use prior to notification [i.e. 100% of the mean annual count during the five years for which data are available prior to notification: 1993, 1997-2000];</i> iii. <i>the abundance of prey species forming the river lamprey's food resource within the estuary, is maintained.</i> 6.7 Interest feature 7: The conservation objective for <i>Petromyzon marinus</i> (sea lamprey) <i>The conservation objective for the "Petromyzon marinus (sea lamprey)" feature of the Dee Estuary SAC is to maintained the feature in favourable condition, as defined below:</i> <i>The "sea lamprey" feature will be considered to be in favourable condition when, subject to natural processes, each of the following conditions are met:</i> i. <i>the migratory passage of both adult and juvenile sea lampreys through the Dee Estuary between Liverpool Bay and the River Dee is unobstructed by physical barriers and / or poor water quality;</i> ii. <i>the five year mean count of sea lampreys recorded by the Chester Weir fish trap is no less than 18 under the monitoring regime in use prior to notification. [i.e. 100% of the mean annual count during the five years for which data are available prior to notification: 1993, 1997-2000];</i> iii. <i>the abundance of prey species forming the sea lamprey's food resource within the estuary, is maintained.</i>

3.1.2.2 Screening for Likely Significant Effect

NE and CCW's (now NRW) advice, given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994 for Dee Estuary/Aber Dyfrdwy SAC⁸, has been used to screen for LSE. Where NE and CCW (2010) determine a feature is vulnerable, or sensitive to a pressure that may be associated with the proposed works, the pressure has been screened for LSE. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

⁸ https://naturalresources.wales/media/673576/Dee%20Estuary-Reg33-Volume%201-English-091209_1.pdf

Due to the distance between the project sites and Dee Estuary/Aber Dyfrdwy SAC, there is no pressure-receptor pathway for any direct effects. Secondary effects, such as those associated with suspended sediment plumes or introduction/spread of species, are not likely to occur due to the location of the SAC in relation to the proposed works. The SAC is located on the north coast of Wales, on the Wales-England border, approximately 32 km east of the project sites, outside the maximum extent of secondary effects by a considerable margin. Therefore, **No Likely Significant Effect** is determined for all features of Dee Estuary/Aber Dyfrdwy SAC.

No LSE has been determined for all pressures on all qualifying features and sub-features of Dee Estuary/Aber Dyfrdwy SAC, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to its distance from the project sites and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

3.1.3 Bae Cemlyn/Cemlyn Bay Special Area of Conservation

3.1.3.1 Site Overview

The Conwy Bay project sites are located approximately 43 km to the southeast of Bae Cemlyn/Cemlyn Bay SAC. The designated features and conservation objectives of Bae Cemlyn/Cemlyn Bay SAC are presented in Table 3.5.

Table 3.5: Overview of Bae Cemlyn/Cemlyn Bay Special Area of Conservation

Bae Cemlyn / Cemlyn Bay SAC (UK0030114)	
https://naturalresources.wales/media/674074/Cemlyn%20WES32%20plan%20English.pdf	
Qualifying Features	Annex I Habitats - Coastal lagoons; - Perennial vegetation of stony banks.
Conservation Objectives (CCW, 2008b)	4.2 Conservation Objective for Feature 5: Coastal Lagoon and Feature 9: Spiral tasselweed <i>Ruppia cirrhosa</i> Vision for Features 5 and 9: The vision for these features is for them to be in a favourable conservation status, where all the following conditions are satisfied: - There is no loss of area other than that due to natural processes. - The specialised plant and animal communities within the lagoon remain. - All factors affecting the achievement of these conditions are under control. 4.3 Conservation Objective for Feature 6: Perennial vegetation of Stony Banks Vision for Feature 6: The vision for this feature is for it to be in a favourable conservation status, where all the following conditions are satisfied: - The extent of the vegetation of shingle banks is maintained unless altered by natural (e.g. storm) events. - Typical component species of vegetation of shingle banks are maintained. - Invasive alien species (e.g. <i>Fallopia japonica</i>) are absent.

Bae Cemlyn / Cemlyn Bay SAC (UK0030114)	
	<i>The management of activities or operations likely to damage or degrade the population dynamics, natural range and supporting habitat of the feature is appropriate for maintaining favourable conservation status and is secure in the long-term.</i>

3.1.3.2 Screening for Likely Significant Effect

CCW's Core Management Plan⁹ and, where applicable, NRW's site level feature condition assessment¹⁰ for Bae Cemlyn/Cemlyn Bay SAC have been used to screen for LSE. The conservation objectives and management requirements for each feature (CCW, 2008b) were reviewed, and where pressures associated with the proposed works may interact with or contravene the conservation objectives or management requirements, the pressure was screened for LSE. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

Due to the distance between the project sites and Bae Cemlyn/Cemlyn Bay SAC, and the small scale of the proposed work and sessile nature of the designated features, there is no pressure-receptor pathway for any direct effects. Secondary effects, such as those associated with suspended sediment plumes or introduction/spread of species, are not likely to occur due to the location of the SAC in relation to the proposed works. The SAC is located on the north coast of Anglesey, approximately 43 km northwest of the project sites. Additionally, the designated Annex I habitat features of Bae Cemlyn/Cemlyn Bay SAC are coastal habitat features with limited interaction with the marine environment. Therefore, **No Likely Significant Effect** is determined for all features of Bae Cemlyn/Cemlyn Bay SAC.

No LSE has been determined for all pressures on all qualifying features and sub-features of Bae Cemlyn/Cemlyn Bay SAC, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to its distance from the project sites and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

⁹ <https://naturalresources.wales/media/674074/Cemlyn%20WES32%20plan%20English.pdf>

¹⁰ <https://cdn.cyfoethnaturiol.cymru/media/686265/eng-report-228-cemlyn-bay-sac-indicative-site-level-feature-condition-2018.pdf>

3.1.4 North Anglesey Marine/Gogledd Môn Forol Special Area of Conservation

3.1.4.1 Site Overview

The Conwy Bay project sites are located approximately 23 km to the southeast of North Anglesey Marine/Gogledd Môn Forol SAC. The designated features and conservation objectives of North Anglesey Marine/Gogledd Môn Forol SAC are presented in Table 3.6.

Table 3.6: Overview of Y Fenai a Bae Conwy/Menai Strait and Conwy Bay Special Area of Conservation

North Anglesey Marine / Gogledd Môn Forol SAC (UK0030398)	
https://naturalresources.wales/media/691805/north-anglesey-marine-conservation-objectives-and-advice-on-operations.pdf	
Qualifying Features	Annex II Species Harbour porpoise <i>Phocoena phocoena</i>.
Conservation Objectives (JNCC <i>et al.</i> , 2019)	<i>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</i> <i>In the context of natural change, this will be achieved by ensuring that:</i> <i>Harbour porpoise is a viable component of the site;</i> <i>There is no significant disturbance of the species; and</i> <i>The condition of supporting habitats and processes, and the availability of prey is maintained.</i>

3.1.4.2 Screening for Likely Significant Effect

Joint Nature Conservation Committee (JNCC), NRW, and Department of Agriculture, Environment and Rural Affairs (DAERA)'s advice, provided under Regulation 21 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 and Regulation 37(3) of the Conservation of Habitats and

Species Regulations 2017, for North Anglesey Marine/Gogledd Môn Forol SAC¹¹ has been used to screen for LSE. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Appropriate Assessment.

North Anglesey Marine/Gogledd Môn Forol SAC was designated in 2019 for being included as part of the top 10% of persistent high-density harbour porpoise areas in the UK for the summer season (NRW and JNCC, 2017). At its closest, the SAC is approximately 23 km from the project sites, however, the majority of the SAC is located north and northwest of Anglesey, away from the inshore waters of Conwy Bay. The most important areas on the west side of the UK for harbour porpoise are Bristol Channel Approaches, encompassing the entrance to the Bristol Channel, and north Devon and south Pembrokeshire; West Wales Marine, including Cardigan Bay and the north and west coasts of Pembrokeshire; North Wales Marine, including the west and north coasts of Anglesey; and North Channel, off the east coast of Northern Ireland (NRW and JNCC, 2017). These 4 SACs are aligned south-north, and the important areas for the species do not extend into the Liverpool Bay region, or along the north coast of mainland Wales. The project sites are located within Conwy Bay, which is not recognised as a particularly important site for harbour porpoise. Vessels transiting to, and from, the project sites will use Holyhead and, therefore, may pass through the SAC.

Due to the location and small scale and highly localised effects associated with the proposed works, there is no pressure-receptor pathway for any impact on harbour porpoise supporting habitat within North Anglesey Marine/Gogledd Môn Forol SAC. There is potential for foraging harbour porpoise to interact with the proposed works; however, given the extensive foraging range of these highly mobile animals, the proposed works constitute a negligible proportion of their overall foraging grounds, and it is therefore determined that there is no risk in terms of population-level effects on feeding resources. In view of the low likelihood of notable interaction between the harbour porpoise feature, or supporting habitats, of North Anglesey Marine/Gogledd Môn Forol SAC and the proposed works, **No Likely Significant Effect** is determined.

No LSE has been determined for all pressures on all qualifying features and sub-features of North Anglesey Marine/Gogledd Môn Forol SAC, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to its distance from the project sites, very low usage of the shallow waters at the project sites, and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

¹¹ <https://naturalresources.wales/media/691805/north-anglesey-marine-conservation-objectives-and-advice-on-operations.pdf>

3.2 Screening for Special Protection Areas

There are 6 SPAs with marine components within 50 km of the project (Figure 1.2):

- Liverpool Bay/Bae Lerpwl SPA (UK9020294);
- Traeth Lafan/Lavan Sands, Conway Bay (UK9013031);
- Anglesey Terns/Morwenoliaid Ynys Môn (UK9013061);
- Ynys Seiriol/Puffin Island (UK9020285);
- The Dee Estuary (UK9013011) and Ramsar Site (UK11082); and
- Mersey Narrows and North Wirral Foreshore SPA (UK9020287) and Ramsar Site (UK11042).

3.2.1 Liverpool Bay/Bae Lerpwl Special Protection Area

3.2.1.1 Site Overview

The Conwy Bay project sites are located entirely within Liverpool Bay/Bae Lerpwl SPA. The designated features and conservation objectives of Liverpool Bay/Bae Lerpwl SPA are presented in Table 3.7.

Table 3.7: Overview of Liverpool Bay / Bae Lerpwl Special Protection Area

Liverpool Bay / Bae Lerpwl SPA (UK9020294)	
https://publications.naturalengland.org.uk/publication/3236717?category=3229185	
Qualifying Features	Birds • Red-throated diver <i>Gavia stellata</i> (non-breeding); • Common scoter <i>Melanitta nigra</i> (non-breeding); • Little gull <i>Hydrocoloeus minutus</i> (non-breeding); • Common tern <i>Sterna hirundo</i> (breeding); • Little tern <i>Sternula albifrons</i> (breeding); • Waterbird assemblage (non-breeding).

Conservation Objectives (NE *et al.*, 2022)

Red-throated diver

- Subject to natural change, maintain or restore the red-throated diver population, distribution and its supporting habitats in favourable condition.

Attribute	Target
Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 1,800 individuals (mean peak, 2015, 2018, 2019, 2020).
Non-breeding population: distribution	Restore the distribution of the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting feature distribution.
Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.
Supporting habitat: food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. fish) to maintain the population.
Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Restore the extent, distribution and availability of suitable habitat which supports the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting the extent and quality (including water quality).

Common scoter

- Subject to natural change, maintain or restore the common scoter population, distribution and its supporting habitats in favourable condition.

Attribute	Target
Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 141,801 individuals (mean peak, 2015, 2018, 2019, 2020).

Liverpool Bay / Bae Lerpwl SPA (UK9020294)		
	Non-breeding population: distribution	Maintain the distribution of the feature; the extent should not be reduced by anthropogenic factors.
	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.
	Supporting habitat: food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. molluscs and bivalves) to maintain the population.
	Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Maintain the extent, distribution and availability of suitable habitat which supports the feature; the quality and extent should not deteriorate by anthropogenic factors (including water quality).
	Little gull Subject to natural change, maintain or restore the little gull population, distribution and its supporting habitats in favourable condition.	
	Attribute	
	Target	
	Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 319 individuals (mean peak, 2004/2005 to 2010/2011).
	Non-breeding population: distribution	Maintain the distribution of the feature; the extent should not be reduced by anthropogenic factors.
	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.
	Supporting habitat: food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. fish) to maintain the population.

Liverpool Bay / Bae Lerpwl SPA (UK9020294)		
	Connectivity with supporting habitats	Maintain safe passage of birds moving between roosting and feeding areas.
	Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Maintain the extent, distribution and availability of suitable habitat which supports the feature; the quality and extent should not deteriorate by anthropogenic factors (including water quality).
	Common tern Subject to natural change, maintain or restore the common tern population, distribution and its supporting habitats in favourable condition.	
	Attribute	
	Target	
	Breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 180 pairs (2011 to 2015).
	Breeding population: distribution	Maintain the distribution of the feature; the extent should not be reduced by anthropogenic factors.
	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.
	Supporting habitat: food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. fish) to maintain the population.
	Connectivity with supporting habitats	Maintain safe passage of birds moving between nesting and feeding areas
	Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Maintain the extent, distribution and availability of suitable habitat which supports the feature; the quality and extent should not deteriorate by anthropogenic factors (including water quality).

Liverpool Bay / Bae Lerpwl SPA (UK9020294)		
	Little tern Subject to natural change, maintain or restore the little tern population, distribution and its supporting habitats in favourable condition.	
	Attribute	Target
	Breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 69 pairs (1995 to 1999).
	Breeding population: distribution	Maintain the distribution of the feature; the extent should not be reduced by anthropogenic factors.
	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.
	Supporting habitat: food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. fish) to maintain the population.
	Connectivity with supporting habitats	Maintain safe passage of birds moving between nesting and feeding areas
	Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Maintain the extent, distribution and availability of suitable habitat which supports the feature; the quality and extent should not deteriorate by anthropogenic factors (including water quality).

3.2.1.2 Screening for Likely Significant Effect

Natural England, NRW, and JNCC's conservation advice package¹² and advice on operations¹³, has been used to screen for potential LSE (Table 3.8).

Table 3.8: Pressures associated with the project that may cause deterioration or disturbance to the classified features of the Liverpool Bay / Bae Lerpwl Special Protection Area (Source: NE *et al.*, 2022)

Keys: **Column Header BTO Codes:** RH = red-throated diver; CX = common scoter; LU = little gull; CN = common tern; AF = little tern; SH = supporting habitat (all combined).

Shading:  = Screened Out;  = Screened In. **Sensitivity Assessment Abbreviations:** NR = Not Relevant; NS = Not Sensitive; IE = Insufficient Evidence; S = Sensitive.

Pressure	RH	CX	LU	CN	AF	SH
Abrasion/disturbance of the substrate on the surface of the seabed	NR	NR	NR	NR	NR	S
Barrier to species movement	S	S	S	NS	S	S
Changes in suspended solids (water clarity)	S	IE	S	S	S	S
Habitat structure changes – removal of substratum (extraction)	NR	NR	NR	NR	NR	S
Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion	NR	NR	NR	NR	NR	S
Smothering and siltation rate changes (heavy)	NR	NR	NR	NR	NR	S
Smothering and siltation rate changes (light)	NR	NR	NR	NR	NR	S

¹² <https://publications.naturalengland.org.uk/publication/3236717?category=3229185>

¹³ <https://designatedsites.naturalengland.org.uk/Marine/FAPMatrix.aspx?SiteCode=UK9020294>

Pressure	RH	CX	LU	CN	AF	SH
Above water noise	S	S	S	S	S	NR
Underwater noise changes	S	NS	IE	IE	IE	S
Visual disturbance	S	S	NS	S	S	S

Where any receptor is assessed as sensitive (directly or indirectly) or if there is insufficient evidence or no assessment, the pressure has been screened for LSE in Table 3.9. Pressures which are closely related or result in the same effect on receptors have been grouped.

Table 3.9: Screening for Likely Significant Effect on Liverpool Bay/Bae Lerpwl Special Protection Area

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
Abrasion/disturbance of the substrate on the surface of the seabed Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion Habitat structure changes – removal of substratum (extraction)	Supporting habitats: • Intertidal mixed sediment; • Intertidal sand and muddy sand; • Subtidal coarse sediment; • Subtidal mixed sediments; • Subtidal mud; • Subtidal sand.	No Likely Significant Effect (LSE)	Any disturbance to the seabed resulting from the re-levelling of cultch will not result in any habitat loss exceeding that already licensed for cultch deployment (i.e. concluded as No LSE under previous HRA). The introduced material will not exceed 50 cm above the surrounding seabed and the project is intended to improve sediment and water quality through biofiltration. The substratum below the surface of the seabed will not be affected during re-levelling. Small changes in habitat structure will occur during re-levelling, however, this will return the height of deposited cultch to within the limits consented under the existing licence, where No LSE was determined.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
			Once native oyster <i>Ostrea edulis</i> beds are established, these will offer additional supporting habitat and water cycling services. As such, No Likely Significant Effect on all features is determined for this pressure.
Barrier to species movement Above water noise Visual disturbance	Species: - Red-throated diver; - Common scoter; - Little gull; - Common tern; - Little tern. Supporting habitats: - Water column.	No LSE	These pressures are grouped as they all relate to disturbance or displacement effects, which can be hard to distinguish and separate from one another. Red-throated diver are sensitive to vessel disturbance and displacement (Furness <i>et al.</i>, 2013). The species has been recorded to flush at distances up to 2.0 km from vessels, with an average disturbance distance of $1,374 \pm 416$ m for individuals and $1,281 \pm 424$ m for flocks (Fleissbach <i>et al.</i>, 2019), and has a relatively long resettlement period of 3-7 hours (Schwemmer <i>et al.</i>, 2011; Dorsch <i>et al.</i>, 2019). Similar to red-throated diver, common scoter are also highly sensitive to disturbance (Furness <i>et al.</i>, 2013) and can be displaced by vessels operating several kilometres away (Fleissbach <i>et al.</i>, 2019). The mean flush distance for individuals is $1,600 \pm 777$ m, decreasing to $1,015 \pm 727$ m for flocks, with a maximum recorded distance of 3.2 km (Fleissbach <i>et al.</i>, 2019). Gulls and terns are considered to have a lower sensitivity to vessel movements (Furness <i>et al.</i>, 2013; Fleissbach <i>et al.</i>, 2019). The sensitivity assessment produced by NE <i>et al.</i> (2022) for terns relates specifically to nesting sites, thus, is not applicable to re-levelling works. Lawson <i>et al.</i> (2016) investigated the distribution of wintering seabirds and waterbirds within the Liverpool Bay/Bae Lerpwl SPA and wider region. Several areas of increased red-throated diver activity were identified, based on survey data from 2004-2011. The areas of highest activity

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
			(peak density of 1.15-1.74 birds/km²) were located at Dee Estuary/Aber Dyfrdwy; and in the south section of Conwy Bay/Bae Conwy, at the mouth of the Menai Strait/Y Fenai. Additional hotspots of activity were recorded on the east coast of Anglesey, Colwyn Bay, Formby and Southport, and Barrow in Furness (Lawson <i>et al.</i>, 2019). Lawson <i>et al.</i> (2016) also assessed the distribution of common scoter within the Liverpool Bay/Bae Lerpwl SPA. The study identified 2 main hotspots of common scoter activity, the first located offshore of Blackpool; and the second on the north Wales coast from Colwyn Bay to Dee Estuary/Aber Dyfrdwy. Density peaks at approximately 259-339 birds/km² and 99-138 birds/km² at each location, respectively (Lawson <i>et al.</i>, 2016). Vessel disturbance of red-throated diver and common scoter. The project sites are located on the eastern edge of the Conwy Bay and Menai Strait hotspot of red-throated diver activity (up to 1.74 birds/km²), however, the project sites are in an area of low activity (0.26-0.37 birds/km²). The project sites are also located on the periphery of an area of slightly increased common scoter density (4.5-14 birds/km²). It should be noted that vessels accessing the project sites are likely to utilise Holyhead. Vessels may pass through, or in close proximity to, the red-throated diver and common scoter hotspots. Red-throated diver and common scoter are present in the Liverpool Bay/Bae Lerpwl SPA over the winter period (October-March), therefore, vessel movements through areas of use during this time may result in temporary disturbance of some individuals. Due to the use of small vessels (i.e. a small visual profile and footprint), the small scale of the project (225 × 225 m within

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
			a 0.20 km² area, representing <0.0001% of the SPA), and limited overlap with areas of high density red-throated diver or common scoter, the spatial extent of disturbance impacts is considered to be low. In addition, restoration of native oyster beds is likely to increase water and sediment quality, removing contaminants. This will benefit benthic and fish communities, resulting increased prey abundance and foraging potential for red-throated diver and common scoter. This is likely to offset any temporary disturbance effects. As such, No Likely Significant Effect on all features is determined for this pressure.
Underwater noise changes	Species: • Red-throated diver; • Little gull; • Common tern; • Little tern. Supporting habitats: • Intertidal rock; • Water column.	No LSE	Underwater noise emissions associated with the re-levelling works will be small. As previously noted, a single, small vessel will be used to undertake the work, which will be limited to very small spatial extents. It is unlikely that noise emissions will be measurable against background levels and will not result in injury. At worst case, localised disturbance and displacement of birds and prey items (e.g. fish) may occur, however, these will be limited to a small spatial extent and short time period. Recovery will be almost immediate, with no population-level effects. As such, No Likely Significant Effect on all features is determined for this pressure.
Changes in suspended solids (water clarity) Smothering and siltation rate changes (heavy) Smothering and siltation rate changes (light)	Species: • Red-throated diver; • Common scoter; • Little gull; • Common tern; • Little tern.	No LSE	Sediment plume effects, including increases in suspended sediment concentration and turbidity, as well as deposition and smothering, are expected to be minimal, with some minor resuspension of sediment possible during re-levelling. However, this will only be for a limited period of time and any resultant sediment deposition will only affect the seabed surface layer. As such, No Likely Significant Effect on all receptors is determined for this pressure.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
	Supporting habitats: • Intertidal rock; • Intertidal mixed sediment; • Intertidal sand and muddy sand; • Infralittoral rock; • Subtidal coarse sediment; • Subtidal mixed sediments; • Subtidal mud; • Subtidal sand; • Circalittoral rock; • Water column.		

No LSE has been determined for all pressures on all qualifying features and sub-features of the Liverpool Bay / Bae Lerpwl SPA, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to the small scale of the project sites and the location of the proposed works outside the hotspots of red-throated diver and common scoter activity, and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

3.2.2 Traeth Lafan/Lavan Sands, Conway Bay Special Protection Area

3.2.2.1 Site Overview

The Conwy Bay project sites are located approximately 7.8 km to the northeast of Traeth Lafan/Lavan Sands, Conway Bay SPA. The designated features and conservation objectives of Traeth Lafan/Lavan Sands, Conway Bay SPA are presented in Table 3.10.

Table 3.10: Overview of Traeth Lafan/Lavan Sands, Conway Bay Special Protection Area

Traeth Lafan / Lavan Sands, Conway Bay SPA (UK9013031)	
https://naturalresources.wales/media/674184/Traeth%20Lafan%20SAC%20Plan%2021[1].4.08%20English.pdf	
Qualifying Features	Birds Eurasian oystercatcher <i>Haematopus ostralegus</i> (non-breeding).
Conservation Objectives (CCW, 2008c)	4.1 Conservation Objective for Feature 1: Oystercatcher (<i>Haematopus ostralegus</i>) Vision for feature 1 <i>The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:</i> <i>The 5 year mean peak abundance of wintering oystercatchers is at least 4,000.</i> <i>The abundance and distribution of cockles of 15 mm or larger and other suitable food are maintained at levels sufficient to support the population with a 5 year mean peak of 4,000 individuals.</i> <i>Oystercatchers are not disturbed in ways that prevent them spending enough time feeding for survival.</i> <i>Roost sites, including high tide roost sites, remain suitable for oystercatchers to roost undisturbed.</i> <i>The management and control of activities or operations likely to adversely affect the oystercatchers, is appropriate for maintained the feature in favourable conditions and is secure in the long term.</i>

3.2.2.2 Screening for Likely Significant Effect

CCW's Core Management Plan including Conservation Objectives for Traeth Lafan/Lavan Sands, Conway Bay SPA¹⁴, and, where applicable, NRW's advice provided under Regulation 37 of the Conservation of Habitats and Species Regulations 2017 for the Y Fenai a Bae Conwy/Menai Strait and Conway Bay SAC⁷, have been used to screen for LSE. The conservation objectives, as well as the most up to date conservation status and management requirements (CCW, 2008c), were used to identify which pressures associated with the proposed works may affect the classified feature of the SPA. Where interaction was identified and may affect the conservation status or management requirements, the pressure was screened for LSE. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

Oystercatcher *Haematopus ostralegus* are waders which utilise the intertidal area and drift line for foraging and roost along the coast and at the shores of coastal and inland lakes and lagoons (RPSB, 2022). The species does not make notable use of the marine environment outside of these areas, and as such there is very limited potential for interaction between the Conway Bay projects sites and the population at Traeth Lafan/Lavan Sands SPA. Due to the distance between the SPA and the project sites, and the highly coastal/intertidal nature of its qualifying feature, there is no pressure-receptor pathway. As such, **No Likely Significant Effect** is determined for non-breeding oystercatcher and supporting habitats at Traeth Lafan/Lavan Sands SPA.

No LSE has been determined for all pressures on all qualifying features and sub-features of the Traeth Lafan/Lavan Sands, Conway Bay SPA, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to its distance from the project sites and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

¹⁴ [https://naturalresources.wales/media/674184/Traeth%20Lafan%20SAC%20Plan%2021\[1\].4.08%20English.pdf](https://naturalresources.wales/media/674184/Traeth%20Lafan%20SAC%20Plan%2021[1].4.08%20English.pdf)

3.2.3 Anglesey Terns/Morwenoliaid Ynys Môn Special Protection Area

3.2.3.1 Site Overview

The Conwy Bay project sites are located approximately 8.5 km to the east of Anglesey Terns/Morwenoliaid Ynys Môn SPA. The designated features and conservation objectives of Anglesey Terns/Morwenoliaid Ynys Môn SPA are presented in Table 3.11

Table 3.11: Overview of Anglesey Terns/Morwenoliaid Ynys Môn Special Protection Area

Anglesey Terns / Morwenoliaid Ynys Môn SPA (UK9013061)	
https://naturalresources.wales/media/674074/Cemlyn%20WES32%20plan%20English.pdf https://naturalresources.wales/guidance-and-advice/environmental-topics/consultations/our-own-consultations/our-own-consultations-closed/closed-2016/new-marine-sac/anglesey-terns/?lang=en	
Qualifying Features	Birds • Arctic tern <i>Sterna paradisaea</i> (breeding); • Common tern <i>Sterna hirundo</i> (breeding); • Roseate tern <i>Sterna dougallii</i> (breeding); • Sandwich tern <i>Sterna sandvicensis</i> (breeding).
Conservation Objectives	The original SPA conservation objectives are outlined by CCW (2008b): 4.1 Conservation Objective for Feature 1-4: Breeding population of Terns Feature 1: Arctic Tern <i>Sterna paradisaea</i> [sic] Feature 2: Common Tern <i>Sterna hirundo</i> Feature 3: Roseate Tern <i>Sterna dougallii</i> Feature 4: Sandwich Tern <i>Sterna sandvicensis</i> Vision for features 1-4 The vision for these features is for them to be in a favourable conservation stations, where all the following conditions are satisfied:

Anglesey Terns / Morwenoliaid Ynys Môn SPA (UK9013061)	
	• The number of breeding terns within the SPA is stable or increasing. • The number of chicks successfully fledged in the SPA and beyond is sufficient to help sustain the population. • The range and distribution of terns within the SPA and beyond is not considered constrained or hindered. • The extent of supporting habitats used by terns is stable or increasing. • Supporting habitats are of sufficient quality to support the requirements of terns. • There are appropriate and sufficient food sources for terns within access of the SPA. • Actions or events likely to impinge on the sustainability of the population are under control. The conservation objectives and SPA boundaries were updated in 2015, and are shared across all 4 features of the SPA (NRW, 2015): • The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term; • The distribution of the population should be being maintained, or where appropriate increasing; • There should be sufficient habitat, of sufficient quality, to support the population in the long term; • Factors affecting the population or its habitat should be under appropriate control.

3.2.3.2 Screening for Likely Significant Effect

CCW's Core Management Plan including Conservation Objectives¹⁵ as well as NRW's Draft Departmental Brief and associated supporting documents¹⁶ for Anglesey Terns/Morwenoliaid Ynys Môn SPA have been used to screen for LSE. The conservation objectives, as well as the most up to date conservation status and management requirements (CCW, 2008b), were used to identify which pressures associated with the proposed works may affect the classified feature of the SPA. Where interaction was identified and may affect the conservation status or management requirements, the pressure was screened for LSE. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

¹⁵ <https://naturalresources.wales/media/674074/Cemlyn%20WES32%20plan%20English.pdf>

¹⁶ <https://naturalresources.wales/guidance-and-advice/environmental-topics/consultations/our-own-consultations/our-own-consultations-closed/closed-2016/new-marine-sac/anglesey-terns/?lang=en>

The Anglesey Terns/Morwenoliaid Ynys Môn SPA is located 8.5 km from the project sites within Conwy Bay and, therefore, may be within foraging range of Arctic tern *Sterna paradisaea* (40.5 km), common tern *S. hirundo* (26.9 km), roseate tern *S. dougallii* (23.2 km) and Sandwich tern *S. sandvicensis* (57.5 km); however, it is important to note that these foraging ranges represent the mean maximum (plus 1 SD) values from a range of colonies (Woodward *et al.*, 2019). Therefore, it is deemed more appropriate to use site or colony specific foraging ranges for screening purposes, where the data are available. In 2015, NRW produced a Departmental Brief for the Anglesey Terns/Morwenoliaid Ynys Môn SPA, with proposals to modify the site boundaries to account for tern foraging areas (NRW, 2015). This report includes marine usage areas for each of the tern qualifying features and, therefore, this information has been used to screen for LSE.

The proposed changes for the SPA included extending the marine site boundaries to include foraging areas for: Arctic and common tern colonies at Ynys Feurig, The Skerries, and Cemlyn Bay; and the Sandwich tern colony at Cemlyn Bay (NRW, 2015). Roseate tern were not included in the analyses for this SPA, as the cited population is 3 breeding pairs and the colony is no longer considered present. Site-specific data, collected in 2010 and 2011 by Wilson *et al.* (2010, 2011; cited by NRW, 2015) show Arctic, common and Sandwich tern abundance around Anglesey, with Arctic and common tern predominantly present around the west and northwest of the island and Sandwich tern utilising areas to the north and east (NRW, 2015).

These data were used to model predicted usage of the marine area by foraging terns in the breeding season (Wilson *et al.*, 2014; cited by NRW, 2015). Arctic and common tern usage areas do not interact with the project sites within Cemlyn Bay (NRW, 2015); therefore, Arctic and common tern are screened out and **No Likely Significant Effect** is determined.

Although Sandwich tern modelled usage overlaps with the project sites, usage within Conwy Bay is <0.08 individuals/km². The project sites cover a total area of 0.20 km² and, therefore, assuming 0.08 birds/km², the maximum expected Sandwich tern abundance is <0.02 individuals, representing $<0.002\%$ of the SPA population (460 pairs) (NRW, 2015). Therefore, Sandwich tern are also screened out, and **No Likely Significant Effect** is determined.

Roseate tern were not included in the assessment (Wilson *et al.*, 2010, 2011, 2014; cited by NRW, 2015), however the colony was previously present at Ynys Feurig, located on the west side of Anglesey (CCW, 2008b). The project sites are approximately 43 km to the east of Ynys Feurig, outside the foraging range of Roseate tern, therefore, there is very limited potential for interaction as individuals would be required to fly around Anglesey or via the Menai Strait to reach the project sites. Additionally, roseate tern have similar foraging habits to other large tern species (including Arctic, common and Sandwich terns) and therefore, it is reasonable to assume a similar foraging distribution from nesting colonies. As such, roseate tern are also screened out and **No Likely Significant Effect** is determined.

No LSE has been determined for all pressures on all qualifying features and sub-features of the Anglesey Terns/Morwenoliaid Ynys Môn SPA, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due the very low density of birds at the project sites, the distance between the project site and any other proposed plan/development in the area, and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

3.2.4 Ynys Seiriol/Puffin Island Special Protection Area

3.2.4.1 Site Overview

The Conwy Bay project sites are located approximately 9.3 km to the west of Ynys Seiriol/Puffin Island SPA. The designated features and conservation objectives of Ynys Seiriol/Puffin Island SPA are presented in Table 3.12.

Table 3.12: Overview of Ynys Seiriol/Puffin Island Special Protection Area

Ynys Seiriol / Puffin Island SPA (UK9020285)	
https://naturalresources.wales/media/674189/Ynys%20Seiriol%20SPA%20%20management%20Plan%2018%20April%20%20(English).pdf	
Qualifying Features	Birds Great cormorant <i>Phalacrocorax carbo</i> (breeding).
Conservation Objectives (CCW, 2008d)	4.1 Conservation Objective for Feature 1: Breeding population of cormorant <i>Phalacrocorax carbo</i> Vision for feature 1 <i>The conservation objective for the Cormorant is to achieve and maintain favourable conservation status, in which all the following conditions are satisfied:</i> <i>The number of breeding cormorants within the SPA are stable or increasing.</i> <i>The abundance and distribution of prey species are sufficient to support this number of breeding pairs and for successful breeding.</i> <i>The management and control of activities or operations likely to adversely affect the Cormorant, is appropriate for maintaining the feature in favourable conditions and is secure in the long term.</i>

3.2.4.2 Screening for Likely Significant Effect

CCW's Core Management Plan for Ynys Seiriol/Puffin Island SPA¹⁷ and, where applicable, the advice package for Y Fenai a Bae Conwy SAC⁷ (also refer to Section 3.1.1 of this report) have been used to screen for LSE. The conservation objectives, as well as the most up to date conservation status and management requirements (CCW, 2008d), were used to identify which pressures associated with the proposed works may affect the classified feature of the SPA. Where interaction was identified and may affect the conservation status or management requirements, the pressure was screened for LSE. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

Where available, site-specific foraging range and at-sea usage area data have been used to identify pressure-receptor pathways for Ynys Seiriol/Puffin Island SPA, however, there are no distribution data for great cormorant *Phalacrocorax carbo*. Puffin Island (Ynys Seiriol) is an important breeding site for the species February-July (CCW, 2008d), and human disturbance is required to be minimised. This includes visits during the breeding season, and disturbance caused by passing vessels, which are advised to maintain a >100 m distance from the island. The project sites are located in excess of 9 km from the SPA, and vessels will operate out of Holyhead and, therefore, may pass by Puffin Island. Woodward *et al.* (2019) determined that the mean maximum (plus 1 SD) foraging range of great cormorant is 33.9 km, meaning the project sites within Conwy Bay are within foraging range of Ynys Seiriol/Puffin Island SPA. It is important to recognise that whilst great cormorant forage in coastal waters rather than offshore, they are pursuit divers and dive down to an average of 12.1 m, with a maximum depth of 35 m (NE, 2012), whereas the project sites are in water depth up to 3.0 m. As such, the project sites are unlikely to represent prime foraging habitat for great cormorant due to the shallow water. Additionally, Furness *et al.* (2013) found that the species is not highly sensitive to vessel disturbance. Therefore, due to the small scale and localised effects associated with the proposed works, **No Likely Significant Effect** is determined for Ynys Seiriol/Puffin Island SAC.

No LSE has been determined for all pressures on all qualifying features and sub-features of Ynys Seiriol/Puffin Island SAC, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to the expected limited use of the site project sites by great cormorant, and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects.

¹⁷ [https://naturalresources.wales/media/674189/Ynys%20Seiriol%20SPA%20%20management%20Plan%2018%20April%20%20\(English\).pdf](https://naturalresources.wales/media/674189/Ynys%20Seiriol%20SPA%20%20management%20Plan%2018%20April%20%20(English).pdf)

3.2.5 The Dee Estuary Special Protection Area and Ramsar Site

3.2.5.1 Site Overview

The Conwy Bay project sites are located approximately 32 km to the west of The Dee Estuary SPA and Ramsar Site. The designated features and conservation objectives of The Dee Estuary SPA are presented in Table 3.13.

Table 3.13: Overview of The Dee Estuary Special Protection Area

The Dee Estuary SPA (UK9013011) and Ramsar Site (UK11082)	
https://naturalresources.wales/media/673576/dee-estuary-reg33-volume-1-english-091209_1.pdf	
Qualifying Features	Birds • Common shelduck <i>Tadorna tadorna</i> (non-breeding); • Eurasian teal <i>Anas crecca</i> (non-breeding); • Northern pintail <i>Ana acuta</i> (non-breeding); • Eurasian oystercatcher <i>Haematopus ostralegus</i> (non-breeding); • Grey plover <i>Pluvialis squatarola</i> (non-breeding); • Red knot <i>Calidris canutus</i> (non-breeding); • Dunlin <i>Calidris alpina alpina</i> (non-breeding); • Black-tailed godwit <i>Limosa limosa islandica</i> (non-breeding); • Bar-tailed godwit <i>Limosa lapponica</i> (non-breeding); • Eurasian curlew <i>Numenius arquata</i> (non-breeding); • Common redshank <i>Tringa totanus</i> (non-breeding); • Sandwich tern <i>Sterna sandvicensis</i> (non-breeding); • Common tern <i>Sterna hirundo</i> (breeding); • Little tern <i>Sternula albifrons</i> (breeding); • Waterbird assemblage (non-breeding).

The Dee Estuary SPA (UK9013011) and Ramsar Site (UK11082)	
Conservation Objectives (NE, 2019a)	<i>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</i> <i>1. The extent and distribution of the habitats of the qualifying features</i> <i>2. The structure and function of the habitats of the qualifying features</i> <i>3. The supporting processes on which the habitats of the qualifying features rely</i> <i>4. The population of each of the qualifying features, and,</i> <i>5. The distribution of the qualifying features within the site.</i>

3.2.5.2 Screening for Likely Significant Effect

Natural England and CCW's advice given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994 for The Dee Estuary SPA¹⁸ has been used to screen for LSE. Where NE and CCW (2010) determine a feature is vulnerable or sensitive, to a pressure that may be associated with the proposed works, the pressure has been screened for LSE (Table 3.14). Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

The Dee Estuary SPA is located >30 km (in a direct line) from the project sites. The majority (11 out of 14 species, plus the waterbird assemblage) of the qualifying features of the SPA are overwintering waders or waterbirds. These species utilise the nearshore and intertidal areas of the SPA for food resources and roosting sites, predominantly within and around the Dee Estuary (NE and CCW, 2010). NE and CCW identify the supporting habitats for these features within the SPA as rocky shores, shingle banks, saltmarsh, intertidal mudflats and sand flats, and estuary channels. Vessels will operate out of Holyhead. Due to the distance between the project sites and the SPA, and the coastal and intertidal habitat usage of these species, there is no pressure-receptor pathway for any impact.

Where available, site-specific foraging range and usage data have been used to identify potential exposure pathways for seabird receptors. Where site-specific data are not available, Woodward *et al.* (2019) seabird foraging ranges have been used. There are 3 seabird features of The Dee Estuary SPA:

¹⁸ https://naturalresources.wales/media/673576/dee-estuary-reg33-volume-1-english-091209_1.pdf

common, little, and Sandwich tern. NE and CCW (2010) identified the supporting habitats for the tern species as estuary channels and shingle banks. Tern species use the estuary channels for feeding, diving into the water to catch benthic and pelagic prey, primarily consisting of small fish and crustaceans (Green, 2017). Common and little tern utilise areas of vegetated shingle for nesting during the summer season (April-September), creating small, shallow nests in the sand. Both of these habitats are located in excess of 35 km from the project sites. NE and CCW (2010) provide limited information on at-sea usage areas of tern species, and as such, foraging ranges provided by Woodward *et al.* (2019) have been used. Little and common tern have foraging ranges (mean maximum, plus 1 SD) of 5.0 km and 26.9 km, respectively, resulting in no pressure-receptor pathway. Sandwich tern have a foraging range of 57.5 km and, as such, may interact with the project sites.

Table 3.14: Screening for Likely Significant Effect on The Dee Estuary Special Protection Area and Ramsar Site

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
Abrasion/disturbance of the substrate on the surface of the seabed Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion (Termed “Physical damage by abrasion” (NE and CCW, 2010))	Supporting habitats: • Intertidal mudflats and sandflats; • Saltmarsh; • Rocky shore; • Shingle ridges.	No Likely Significant Effect (LSE)	Abrasion/disturbance of the substrate on the surface of the seabed. The project sites are located in excess of 30 km from the SPA. As previously noted, the project site is outside the foraging range for all features other than Sandwich tern. As such there is no pressure pathway for these species. Given the extensive foraging range of Sandwich tern, the project footprint (0.20 km²) constitutes a negligible proportion of overall foraging grounds available. As such, any effects on feeding resources would have a negligible effect on this classified population. As such, No Likely Significant Effect on all features is determined for this pressure. Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion. The proposed works involve re-levelling of cultch already deployed under the existing licence. As such no penetration and/or disturbance below the surface of the seabed is expected. No Likely Significant Effect on all features is determined for this pressure.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
Changes in suspended solids (water clarity) (Termed “<i>Non-toxic contamination by changes in turbidity</i>” (NE and CCW, 2010))	Birds • Little tern <i>Sternula albifrons</i>, breeding; • Common tern <i>Sterna hirundo</i>, breeding; • Sandwich tern <i>Sterna sandvicensis</i>, non-breeding. Supporting habitats: • Estuary channels.	No LSE	Changes in suspended solids (water clarity). The project sites are located in excess of 30 km from the SPA and are therefore outside the foraging range and the at-use areas of little tern and common tern. Whilst Sandwich tern foraging range (57.5 km) overlaps with the project sites, the species is predominantly coastal and utilises the nearshore and estuary channels of the SPA, foraging for small-medium fish. It is possible that a small number of individuals may interact with the project site. However, Sandwich tern have a wide spatial extent of available foraging habitat and the project sites cover a combined total of just 0.20 km² (although it is important to note that cultch will be deposited over a much smaller area: 0.08 km², West Bwrling approx. 520 m by 160 m area), a negligible proportion of foraging habitat. Therefore, No Likely Significant Effect on all features is determined for this pressure.
Introduction of microbial pathogens (Termed “<i>Biological disturbance by introduction of microbial pathogens</i>” (NE and CCW, 2010))	Birds • Common shelduck <i>Tadorna tadorna</i>, non-breeding; • Eurasian teal <i>Anas crecca</i>, non-breeding; • Northern pintail <i>Ana acuta</i>, non-breeding; • Eurasian oystercatcher <i>Haematopus ostralegus</i>, non-breeding; • Grey plover <i>Pluvialis squatarola</i>, non-breeding; • Red knot <i>Calidris canutus</i>, non-breeding; • Dunlin <i>Calidris alpina alpina</i>, non-breeding;	No LSE	Introduction of microbial pathogens. No new material is being added, only the previously deposited cultch is being redistributed. As such, No Likely Significant Effect on all features is determined for this pressure. As such, No Likely Significant Effect on all features is determined for this pressure.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
	- Black-tailed godwit <i>Limosa limosa islandica</i>, non-breeding; - Bar-tailed godwit <i>Limosa lapponica</i>, non-breeding; - Eurasian curlew <i>Numenius arquata</i>, non-breeding; - Common redshank <i>Tringa totanus</i>, non-breeding; - Sandwich tern <i>Sterna sandvicensis</i>, non-breeding; - Common tern <i>Sterna hirundo</i>, breeding; - Little tern <i>Sternula albifrons</i>, breeding; - Waterbird assemblage, non-breeding. Supporting habitats: - Rocky shores; - Shingle banks; - Saltmarsh; - Intertidal mudflats and sand flats; - Estuary channels.		
Introduction or spread of invasive non-indigenous species (INIS) (Termed “<i>Biological disturbance by introduction of non-native species</i>” (NE and CCW, 2010))	Birds - Common shelduck <i>Tadorna tadorna</i>, non-breeding; - Eurasian teal <i>Anas crecca</i>, non-breeding; - Northern pintail <i>Ana acuta</i>, non-breeding;	No LSE	Introduction or spread of invasive non-indigenous species (INIS). No new material is being added, only the previously deposited cultch is being redistributed. As such, No Likely Significant Effect on all features is determined for this pressure. As such, No Likely Significant Effect on all features is determined for this pressure. The chartered vessel, such as the <i>Saint David</i> tug vessel have been sourced locally and came out of a dry dock in May 2023, after which antifouling was carried out. The plough has

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
	- Eurasian oystercatcher <i>Haematopus ostralegus</i>, non-breeding; - Grey plover <i>Pluvialis squatarola</i>, non-breeding; - Red knot <i>Calidris canutus</i>, non-breeding; - Dunlin <i>Calidris alpina alpina</i>, non-breeding; - Black-tailed godwit <i>Limosa limosa islandica</i>, non-breeding; - Bar-tailed godwit <i>Limosa lapponica</i>, non-breeding; - Eurasian curlew <i>Numenius arquata</i>, non-breeding; - Common redshank <i>Tringa totanus</i>, non-breeding; - Sandwich tern <i>Sterna sandvicensis</i>, non-breeding; - Common tern <i>Sterna hirundo</i>, breeding; - Little tern <i>Sternula albifrons</i>, breeding; - Waterbird assemblage, non-breeding. Supporting habitats: - Rocky shores; - Shingle banks; - Saltmarsh; - Intertidal mudflats and sand flats; - Estuary channels.		been out of water for over 3 years and is additionally stored out of water when not in use, thus reducing the risk of invasive non-native species (INNS).

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
Removal of non-target species Removal of target species (Termed “Biological disturbance by selective extraction of species” NE and CCW (2010))	Birds • Common shelduck <i>Tadorna tadorna</i>, non-breeding; • Eurasian teal <i>Anas crecca</i>, non-breeding; • Northern pintail <i>Ana acuta</i>, non-breeding; • Eurasian oystercatcher <i>Haematopus ostralegus</i>, non-breeding; • Grey plover <i>Pluvialis squatarola</i>, non-breeding; • Red knot <i>Calidris canutus</i>, non-breeding; • Dunlin <i>Calidris alpina alpina</i>, non-breeding; • Black-tailed godwit <i>Limosa limosa islandica</i>, non-breeding; • Bar-tailed godwit <i>Limosa lapponica</i>, non-breeding; • Eurasian curlew <i>Numenius arquata</i>, non-breeding; • Common redshank <i>Tringa totanus</i>, non-breeding; • Sandwich tern <i>Sterna sandvicensis</i>, non-breeding; • Common tern <i>Sterna hirundo</i>, breeding; • Little tern <i>Sternula albifrons</i>, breeding; • Waterbird assemblage, non-breeding.	No LSE	Removal of non-target species. The proposed works do not involve removal of any, including non-target, species, rather it concerns the deposition of cultch and oysters. As such, No Likely Significant Effect on all features is determined for this pressure. Removal of target species. The proposed works do not involve removal of any species, rather it concerns the deposition of cultch and oysters. As such, No Likely Significant Effect on all features is determined for this pressure.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
	Supporting habitats: - Rocky shores; - Shingle banks; - Saltmarsh; - Intertidal mudflats and sand flats; - Estuary channels.		
Smothering and siltation rate changes (Light) (Termed “Physical loss by smothering” and “Physical damage by siltation” (NE and CCW, 2010))	Supporting habitats: - Rocky shores; - Shingle banks; - Saltmarsh; - Intertidal mudflats and sand flats; - Estuary channels.	No LSE	Smothering and siltation rate changes (Light). The project sites are located in excess of 30 km from the SPA and, as such, No Likely Significant Effect on all features is determined for this pressure.
Visual disturbance (Termed “Non-physical disturbance caused by visual cues” (NE and CCW, 2010))	Birds - Common shelduck <i>Tadorna tadorna</i>, non-breeding; - Eurasian teal <i>Anas crecca</i>, non-breeding; - Northern pintail <i>Ana acuta</i>, non-breeding; - Eurasian oystercatcher <i>Haematopus ostralegus</i>, non-breeding; - Grey plover <i>Pluvialis squatarola</i>, non-breeding; - Red knot <i>Calidris canutus</i>, non-breeding; - Dunlin <i>Calidris alpina alpina</i>, non-breeding; - Black-tailed godwit <i>Limosa limosa islandica</i>, non-breeding;	No LSE	Visual disturbance. Vessels accessing the project sites will do so from Holyhead, and as such will not interact with The Dee Estuary SPA during transit. The project sites are located in excess of 30 km from the SPA, placing them outside the foraging range of all features except Sandwich tern. Sandwich tern usage areas are typically the nearshore and estuary channels, as well as the beach and intertidal area of the SPA. It is possible that a limited number of individuals may use Conwy Bay for foraging, however, the species has a wide spatial extent within its foraging range and the project sites occupy just 0.20 km ² (noting that cultch will be re-levelled over just 0.05 km ²), a negligible proportion. As such, No Likely Significant Effect on all features is determined for this pressure.

Pressure(s)	Qualifying Feature(s) or Sub-feature(s)	Conclusion	Justification
	• Bar-tailed godwit <i>Limosa lapponica</i>, non-breeding; • Eurasian curlew <i>Numenius arquata</i>, non-breeding; • Common redshank <i>Tringa totanus</i>, non-breeding; • Sandwich tern <i>Sterna sandvicensis</i>, non-breeding; • Common tern <i>Sterna hirundo</i>, breeding; • Little tern <i>Sternula albifrons</i>, breeding; • Waterbird assemblage, non-breeding.		

No LSE has been determined for all pressures on all qualifying features and sub-features of The Dee Estuary SPA, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to its distance from the project sites, only Sandwich tern is within foraging range, which has very limited usage of the project sites within Conwy Bay. This, in addition to the determination of No LSE for all pressures assessed, means that No LSE can also be determined for in-combination effects with other projects.

3.2.6 Mersey Narrows and North Wirral Foreshore Special Protection Area and Ramsar Site

3.2.6.1 Site Overview

The Conwy Bay project sites are located approximately 44 km to the west of the Mersey Narrows and North Wirral Foreshore SPA and Ramsar Site. The designated features and conservation objectives of the Mersey Narrows and North Wirral Foreshore SPA are presented in Table 3.15.

Table 3.15: Overview of the Mersey Narrows and North Wirral Foreshore Special Protection Area

Mersey Narrows and North Wirral Foreshore SPA (UK9020287) and Ramsar Site (UK11042)	
https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9020287	
Qualifying Features	Birds • Knot <i>Calidris canutus</i> (non-breeding); • Bar-tailed godwit <i>Limosa lapponica</i> (non-breeding); • Common tern <i>Sterna hirundo</i> (breeding and non-breeding); • Little gull <i>Hydrocoloeus minutus</i> (non-breeding); • Waterbird assemblage (non-breeding).
Conservation Objectives (NE, 2019b)	<i>Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Bird Directive, by maintaining or restoring;</i> 1. <i>The extent and distribution of the habitats of the qualifying features</i> 2. <i>The structure and function of the habitats of the qualifying features</i> 3. <i>The supporting processes on which the habitats of the qualifying features rely</i> 4. <i>The population of each of the qualifying features, and,</i> 5. <i>The distribution of the qualifying features within the site.</i>

3.2.6.2 Screening for Likely Significant Effect

Natural England's 'Advice on Operations' package for the Mersey Narrows and North Wirral Foreshore SPA¹⁹ has been used to screen for LSE. Where a pressure is considered medium-high risk, and qualifying features or sub-features of the SAC are assessed as 'Sensitive', there is 'Insufficient Evidence', or the sensitivity was 'Not Assessed', these pressure-receptor interactions have been considered. Where No LSE cannot be determined, or where LSE is determined, the pressure-receptor interaction is progressed to Stage 2: Appropriate Assessment.

Mersey Narrows and North Wirral Foreshore SPA is located >40 km (in a direct line) from the project sites. Of the qualifying features of the SPA, 3 are waders or waterbird (or an assemblage thereof) and thus are coastal/intertidal species which are not likely to use the Conwy Bay area, over 40 km away where the project sites are located. These species utilise the nearshore and intertidal areas of the SPA for food resources and roosting sites, and as such there is no pressure-receptor pathway for any impact to waders or waterbirds, or their supporting habitats, of the Mersey Narrows and North Wirral Foreshore SPA. Therefore, **No Likely Significant Effect** is determined for these features.

Where available, site-specific foraging range and usage data have been used to identify potential exposure pathways for seabird receptors. Where site-specific data are not available, Woodward *et al.* (2019) seabird foraging ranges have been used. There are 3 seabird features of Mersey Narrows and North Wirral Foreshore SPA: non-breeding little gull *Hydrocoloeus minutus*, breeding little tern, and non-breeding little tern. There are no site-specific data for at-sea usage areas or foraging ranges for either of these species, and therefore Woodward *et al.* (2019) data have been used. Little tern are a coastal-foraging species (NE and CCW, 2010), utilising intertidal and estuary channels to target prey of small fishes. During the breeding season, little tern forage up to 5.0 km from their colony and, as such, the Conwy Bay project sites are outside the foraging range of this species. Woodward *et al.* (2019) did not include little gull in the study, however, data from the adjacent Liverpool Bay/Bae Lerpwl SPA can be used. NE *et al.* (2016) identified little gull usage areas within the Liverpool Bay/Bae Lerpwl SPA, these areas are located north of the Dee estuary and along the Cumbrian coast. The Conwy Bay project sites are located in an area of extremely low little gull density (>0.01 individuals/km²). Due to the distance between the project site and the at-use areas of the qualifying features of the Mersey Narrows and North Wirral Foreshore SPA, there is no pressure-receptor pathway. Therefore, **No Likely Significant Effect** is determined for these features

No Likely Significant Effect is determined for all qualifying features and supporting habitats, of the Mersey Narrows and North Wirral Foreshore SPA.

¹⁹ <https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9020287>

No LSE has been determined for all pressures on all qualifying features and sub-features of the Mersey Narrows and North Wirral Foreshore SPA, as such, this site is not taken forward to Stage 2: Appropriate Assessment.

Due to its distance from the project sites and determination of No LSE for all pressures assessed, No LSE can also be determined for in-combination effects with other projects (Table 3.16).

Table 3.16 Summary of the Likely Significant Effect Status of the Nearby Protected Sites

Site	Designation	Effect
Y Fenai a Bae Conwy/Menai Strait and Conwy Bay	SAC	No LSE
Dee Estuary/Aber Dyfrdwy	SAC	No LSE
Bae Cemlyn/Cemlyn Bay	SAC	No LSE
North Anglesey Marine/Gogledd Mon Forol	SAC	No LSE
Liverpool Bay/Bae Lerpwl	SPA	No LSE
Traeth Lafan/Lavan Sands, Conwy Bay	SPA	No LSE
Anglesey Terns/Morwenoliaid Ynys Mon	SPA	No LSE
Ynys Seiriol/Puffin Island	SPA	No LSE
The Dee Estuary	SPA and Ramsar Site	No LSE
Mersey Narrows and North Wirral Foreshore	SPA and Ramsar Site	No LSE

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