



# **Awel y Môr Offshore Wind Farm**

## **Supporting Information for Array Area Geotechnical Survey Marine Licence**

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# Abbreviation and Acronyms

TERM	DEFINITION
AA	Appropriate Assessment
AEoI	Adverse Effect on Integrity
AEZ	Archaeological Exclusion Zones
AyM	Awel y Môr Offshore Wind Farm
CPT	Cone Penetration Test
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
DP2	Dynamic Positioning 2
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
EPS	European Protected Species
ES	Environmental Statement
GES	Good Environmental Status
GeS	Good Ecological Status
GyM	Gwynt y Môr Offshore Wind Farm
INNS	Invasive Non-Native Species
LSE	Likely Significant Effect
MLT	Marine Licensing Team
MPA	Marine Protected Area
NRW	Natural Resources Wales

TERM	DEFINITION
O&M	Operation and Maintenance
OSS	Offshore Substation
QHSSE	Quality, Health, Safety, Security and Environment
RCAHMW	Royal Commission on the Ancient and Historical Monuments of Wales
RIAA	Report to Inform Appropriate Assessment
SAC	Special Area of Conservation
SEI	Supporting Environmental Information
SMNR	Sustainable Management of Natural Resources
SoS	Secretary of State
SPA	Special Protection Area
SSC	Suspended Sediment Concentration
WFD	Water Framework Directive
WTG	Wind Turbine Generator

# 1 Introduction

## 1.1 Project Background

Awel y Môr Offshore Wind Farm Limited submitted an application for a Development Consent Order (DCO) in April 2022 for Awel y Môr Offshore Wind Farm (AyM). AyM is located within the East Irish Sea, approximately 10.5 km off the North Wales coast. AyM will comprise up to 50 wind turbine generators (WTGs) and up to two Offshore Substation (OSS) platforms, connected by array and export cables. The Export Cable Corridor (ECC) extends from the offshore array to the landfall between Rhyl and Prestatyn, with onshore cables routed towards the National Grid substation at Bodelwyddan.

Consent was granted by the Secretary of State (SoS) for the Department for Energy Security and Net Zero (DESNZ) on 19<sup>th</sup> September 2023. Following award of the DCO by the SoS, Natural Resources Wales (NRW) granted the following associated Marine Licences on 15<sup>th</sup> November 2023:

- ▲ Marine Licence ORML2233G, issued 15 November 2023, for the generation assets of AyM;
- ▲ Marine Licence ORML2233L, issued 15 November 2023, for the connection between AyM and Gwynt y Môr Offshore Wind Farm (GyM);
- ▲ Marine Licence ORML2233C, issued 15 November 2023, for the directional drilling and cable laying under Clwyd Estuary; and
- ▲ Marine Licence ORML2233T, issued 15 November 2023, for the transmission assets of AyM.

The above licences are referenced solely to provide context on the wider consented project. This Marine Licence application, and associated documents, are in relation to geotechnical site investigation surveys within the AyM Array Area (hereafter referred to as “Array Area”).

## 1.2 Site Investigation Marine Licencing

Offshore geotechnical site investigations are required to inform the detailed design of AyM. It is noted that previous site investigation Marine Licences have been granted for geotechnical surveys at AyM. A Marine Licence application was submitted in April 2023 for geotechnical surveys within the Array Area and ECC (RML2323). RML2323 has since had variations to extend the survey period and number of geotechnical samples, with the most recent being RML2323v4 for an extension to the geotechnical samples within the ECC, which was accepted on 08 December 2025.

Further offshore geotechnical site investigation surveys are required within the Array Area in order to characterise the WTG and OSS locations which is the focus of this Marine Licence application. The geotechnical site investigation survey discussed within this report will be undertaken in the Array Area only and comprises of up to 265 Deep Push Seafloor Cone Penetration Tests (CPTs) (up to five at each of the 53 locations) and 80 vibrocores (one at each of the 53 locations plus contingency). Up to 53 of the CPTs will be seismic CPTs. See Section 3 for further information on site investigation methodology.

Consultation has been undertaken with the Marine Licencing Team to discuss and agree the approach for the Marine Licence application (in particular the approach of submitting this new Marine Licence application for the Array Area instead of a variation to RML2323v4). Correspondence from Marine Licensing Team on agreement of this approach (27/11/2025) is attached with this application.

## 1.3 Document Purpose

This document forms the Supporting Environmental Information (SEI) for the proposed geotechnical site investigation surveys within the Array Area. This document, along with the relevant appendices, intends to provide NRW and their statutory consultees with the necessary information to determine the Marine Licence application.

It is noted that potential environmental impacts from the construction of AyM were assessed within the application for ORML2233. When compared to the full suite of construction activities assessed within the ORML2233 application, the geotechnical site investigation survey applied for within this Marine Licence application are smaller in scale by orders of magnitude. The geotechnical site investigation survey will be temporary and short-term in duration and as such, any environmental impacts from this activity alone will be lower in magnitude than those assessed in the relevant Environmental Statement (ES) chapters<sup>i</sup> that accompanied the Marine Licence ORML2233 application.

The structure of this document alongside a description of its contents are outlined in Table 1.

Table 1: Document Structure and Contents.

SECTION	TITLE	DESCRIPTION
1	Introduction	This section provides brief introduction to the proposed works and outlines the purpose of this document.
2	Legislative and Policy Context	This section outlines the relevant legislation and policy associated with the site investigation surveys.
3	Survey Scope and Methodology	This section details the nature of the site investigation surveys, in terms of the locations, durations and techniques involved.
4	Supporting Environmental Information	This section provides a high-level account of the receiving environment and a consideration of potential effects from the site investigation surveys both in isolation and cumulatively.

<sup>i</sup> Available online at: <https://awelymor.cymru/dco-application/> [Accessed

SECTION	TITLE	DESCRIPTION
5	Consideration of LSE	This section considers the Likely Significant Effect (LSE) of the site investigation surveys.
6	WFD Compliance Assessment	This section considers the site investigation surveys in the context of the Water Framework Directive (WFD).
7	Marine Invasive Non-Native Species (INNS)	This section provides an assessment of the potential impacts of the site investigation surveys with respect to biosecurity and invasive non-native species.
8	Conclusion	This section summarises and concludes the SEI.
9	References	This section provides detail on all the references used within this document.
Appendix A	Marine Plan Policy Assessment	An assessment of how the proposed works align with policies outlined in the Welsh National Marine Plan.
Appendix B	Marine Invasive Non-Native Species Biosecurity Risk Assessment and Management Plan	An assessment of the potential impacts of the proposed works with respect to biosecurity and invasive non-native species.

## 2 Legislative and Policy Context

### 2.1 Legislation

#### 2.1.1 Marine Licensing

The Marine and Coastal Access Act 2009 introduced planning and management systems for overseeing activities in the marine environment. Notably, this included the requirement to obtain marine licences for certain activities conducted at sea. It created a strategic marine planning system that seeks to promote the efficient and sustainable use and protection of the marine environment through Marine Policy Statements, and a series of Marine Plans (see Section 2.2 and Appendix A). The Act provides the framework for a Marine Licensing system, with the Welsh Government as the licensing authority for the Welsh inshore and offshore region. The Marine Licensing Team (MLT) in NRW administer Marine Licences on behalf of the Welsh Government.

#### 2.1.2 The Habitats Regulations

The European Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, also referred to as the 'Habitats Directive', has the primary aim of maintaining biodiversity within Member States. The Habitats Directive is transposed into Welsh law by The Conservation of Habitats and Species Regulations 2017 (as amended), otherwise known as the 'Habitats Regulations'.

The Habitats Regulations identify several habitats or species whose conservation interest requires the designation of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which form a set of protected sites within the UK referred to as the National Site Network.

Under Regulation 48 the Habitats Regulations, any project which may result in LSE on the qualifying interests of a European Site (either alone or in combination with other projects), shall be subject to an Appropriate Assessment (AA). LSE is defined, in this context, as any effect that may be reasonably foreseen, as a consequence of the project, that may affect the conservation objectives of its qualifying interests.

### 2.1.3 Water Framework Directive

The WFD (Directive 2000/60/EC of the European Parliament) is transposed into Welsh law through The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. The WFD aims to achieve a good quality status for all rivers, lochs, transitional waters (estuaries), coastal waters, groundwater and groundwater dependant wetlands. As such, the main aims of the WFD are to:

- Prevent deterioration and enhance the status of aquatic ecosystems, including groundwater;
- Promote sustainable water use;
- Reduce pollution; and
- Contribute to the mitigation of floods and droughts.

Consideration of the site investigation surveys and its alignment with the WFD is discussed further in Section 6.

## 2.2 Policy

### 2.2.1 Welsh National Marine Plan

The Marine Policy Statement, adopted by all UK administrations in March 2011, provides a policy framework for the preparation of Marine Plans and establishing how decisions affecting marine areas should be made. It aims to ensure that marine resources are used in a sustainable way and in line with the following high-level objectives:

- Promote sustainable economic development;
- Enable the UK to move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects;
- Ensure a sustainable marine environment that promotes healthy, functioning marine ecosystems and protects marine habitats, species and heritage assets; and
- Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues.

The Marine Plans translate the Marine Policy Statement into detailed policy and guidance for particular areas, intended to inform and guide decisions on marine developments by conserving and enhancing the environments, reducing costs, increasing certainty for developers and boosting economic and employment benefits.

The Welsh National Marine Plan was published in 2019 and introduces a framework to support sustainable decision making for the marine environment and several policies specific to the renewable energy sector. It sets out thirteen high level marine objectives as presented within Table 2. Table 2 also demonstrates how each of these objectives have been considered in this document. A full Welsh National Marine Plan Signposting Assessment has also been undertaken to show consideration of the specific Marine Plan Policies (Appendix A) to support this Marine Licence application.

Table 2: Welsh National Marine Plan Objectives.

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
Overarching	1	Support the sustainable development of the Welsh marine area by contributing across Wales' well-being goals, supporting the Sustainable Management of Natural Resources (SMNR) through decision making and by taking account of the cumulative effects of all uses of the marine environment.	The site investigation surveys have been designed to support the sustainable development of the Welsh marine area by informing evidence-based decisions that underpin AyM. This approach aligns with Wales' well-being goals by promoting a prosperous and resilient marine economy and safeguarding biodiversity through responsible planning. The surveys follow SMNR principles by minimising environmental disturbance, using best practice methodologies, and ensuring data collected contributes to long-term ecosystem understanding. Cumulative effects have been assessed in Section 4.1 of this SEI, considering interactions with other marine activities and projects to avoid significant combined impacts.

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
Achieving Sustainable Marine Economy	2	Contribute to a thriving Welsh economy by encouraging economically productive activities and profitable and sustainable businesses that create long-term employment at all skill levels.	The site investigation surveys contribute to a thriving Welsh economy by providing essential data that underpins the design and delivery of the AyM offshore wind development. These surveys reduce project risk and support efficient, cost-effective planning, ensuring the long-term viability and profitability of the wider development. By enabling a major renewable energy project, they help create enduring employment opportunities across multiple skill levels (for example from engineering and marine science to operations and maintenance) supporting Wales' transition to a sustainable, low-carbon economy.
	3	Support the opportunity to sustainably develop marine renewable energy resources with the right development in the right place, helping to achieve the UK's energy security and carbon	The site investigation surveys provide essential data to inform the design and delivery of the AyM offshore wind development in a responsible and sustainable way. By supporting the

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
		reduction objectives, whilst fully considering other's interests, and ecosystem resilience.	development of marine renewable energy, the surveys contribute to the UK's energy security and carbon reduction objectives. The work is planned and undertaken in line with best practice to minimise potential impacts and to take account of other marine interests during the survey process.
	4	Provide space to support existing and future sustainable economic activity through managing multiple uses, encouraging the coexistence of compatible activities, the mitigation of conflicts between users and, where possible, by reducing the displacement of existing activities.	The site investigation surveys consider other marine users and are planned to avoid interference. Notices to Mariners will be issued ahead of works, and survey vessels will operate under best-practice protocols. The Applicant has an appointed Fisheries Liaison Officer (FLO) who is responsible for communicating project-related activities (including surveys) to the local fishing community.

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
	5	Recognise the significant value of coastal tourism and recreation to the Welsh economy and well-being and ensure such activity and potential for future growth are appropriately safeguarded.	<p>The site investigation surveys are temporary, short-term, and located offshore, with no adverse effects on tourism or recreation predicted.</p> <p>This conclusion is supported by previous assessments within the AyM ES (ORML2233), which concluded that there will be no adverse effects on tourism, therefore safeguarding the potential for future growth.</p>
Ensuring a Strong, Healthy and Just Society	6	Contribute to supporting the development of vibrant, more equitable, culturally and linguistically distinct, cohesive and resilient coastal communities.	The site investigation surveys contribute to resilient coastal communities by providing essential data that underpins the design and delivery of the AyM offshore wind development which will generate jobs within the Welsh Marine Area.
	7	Support enjoyment and stewardship of our coasts and seas and their resources by encouraging equitable and safe access to a resilient marine	The site investigation surveys will not change the seascape of the Welsh Marine Area. Heritage assets have

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
		environment, whilst protecting and promoting valuable landscapes, seascapes and historic assets.	been considered in Section 3.2 of this SEI.
	8	Improve understanding and enable action supporting climate change adaptation and mitigation.	The site investigation surveys are being undertaken to support the wider AyM development, which form part of the UKs plans to achieve energy security and meet its carbon reduction objectives.
Living within Environmental Limits	9	Support the achievement and maintenance of Good Environmental Status (GES) and Good Ecological Status (GeS).	Effects of the site investigation surveys on the marine environment have been considered in Section 4 of this SEI. No significant impacts have been identified, and any effects have been minimised where possible with appropriate mitigation.
	10	Protect, conserve, restore and enhance marine biodiversity to halt and reverse its decline including supporting the development and	Consideration of designated sites that overlap with the site investigation surveys have been considered within Sections 5 of this SEI. No significant

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
		functioning of a well-managed and ecologically coherent network of Marine Protected Areas (MPAs) and resilient populations of representative, rare and vulnerable species.	impacts have been identified, and any effects have been minimised where possible with appropriate mitigation.
	11	Maintain and enhance the resilience of marine ecosystems and the benefits they provide in order to meet the needs of present and future generations.	Effects of the site investigation surveys on the marine environment have been considered in Section 4 of this SEI. No significant impacts have been identified, and any effects have been minimised where possible with appropriate mitigation.
Promoting Good Governance	12	Support proportionate, consistent and integrated decision making through implementing forward-looking policies as part of a plan-led, precautionary, risk-based and adaptive approach to managing Welsh seas.	The assessment provided within this SEI is proportionate to the scale of the potential impacts from the site investigation surveys

THEME	OBJECTIVE	OBJECTIVE DETAIL	DESCRIPTION OF CONSIDERATION
Using Sound Science Responsibly	13	Develop a shared, accessible marine evidence base to support use of sound evidence and provide a mechanism for the unique characteristics and opportunities of the Welsh Marine Area to be better understood.	The site investigation surveys are being undertaken as part of the wider AyM development, which has undertaken environmental assessments of the Welsh Marine Area, with the results being made publicly available through the application process.

# 3 Survey Scope and Methodology

## 3.1 Scope of Work

Offshore geotechnical site investigations will be undertaken to characterise the WTG and OSS locations. The fieldwork element of the geotechnical survey will comprise of up to 80 vibrocores and up to 265 deep push seafloor Cone Penetration Tests (CPTs), of which, up to 53 will be seismic CPTs. The surveys will then be followed by reporting and laboratory testing.

The samples will be located within the Array Area shown in Figure 1 below. The exact locations of CPTs and vibrocores have not been determined at this stage. However, wherever possible, they will be evenly distributed around the Array Area in order to gather representative data across the site, and to avoid archaeological features.

Table 3 below summarises the parameters associated with the samples proposed.

Table 3: Approximate parameters associated with the vibrocore and CPT sampling.

SAMPLE TYPE	MAXIMUM NUMBER	PENETRATION DEPTH (M)	CORE DIAMETER (MM)	TOTAL VOLUME COLLECTED (M <sup>3</sup> )
Vibrocore	80	6	84	2.6
Seabed CPT	265 (including up to 53 seismic CPTs)	50	N/A	N/A

430000 440000 450000 460000 470000 480000

5940000

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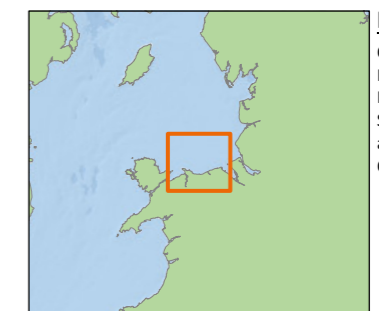


### Awel y Mor - Post Consent Compliance

### Geotechnical Survey Area

#### Legend

-  Array Area
-  Export Cable Corridor
-  Geotechnical Survey Area



**Notes**  
 OceanWise, Esri, Garmin, NaturalVue, Esri, GEBCO, Garmin, NaturalVue. Contains Ordnance Survey data © Crown copyright and database rights (2022). OS OpenData.

Coordinate System:  
WGS 1984 UTM Zone 30N

0 5 10 km

0 2.5 5 nm

Scale	Date	Drawn By	Checked By	Approved By
1:200,000 @ A3	09/12/2025	GB	CM	JG

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**Figure 1**

## 3.2 Programme

The geotechnical survey is expected to take place from April 2026 until June 2026. The total offshore survey duration will be up to 60 vessel days (including bad weather contingency). However, a licence has been requested up to April 2027 in case of delays.

## 3.3 Vessel and Access

The survey will be undertaken by a single vessel. The exact vessel to be used is dependent on availability, which can only be confirmed closer to mobilisation. However, the vessel is likely to be a Dynamic Positioning 2 (DP2) vessel, with a suitable A-Frame and seabed frame to undertake deep push CPTs and vibrocores.

The vessel will likely mobilise from Holyhead, located approximately 59.3 km from the Array Area. However, this will be confirmed closer to mobilisation.

## 3.4 Methodology

### 3.4.1 Reporting

During fieldwork, the project manager will manage, monitor and/or report the following activities:

- ▲ Offshore daily reporting submitted and agreed with the client or client representative;
- ▲ Periodic progress reporting (frequency, format and content as agreed);
- ▲ Registers (quality, health, safety, security and environment (QHSSE), risk);
- ▲ Key decision points/gateways;
- ▲ Preparation of field reports; and
- ▲ Any changes to project scope.

### 3.4.2 Vibrocores

In reference to the vibrocore sampling, the principle behind the method is the use of low-level vibration that is transferred from the vibrocorer head down through the attached barrel or core tube. This vibrational energy liquefies sediments, enabling the core barrel attached to the vibrocore unit to penetrate into the liquefied sediments. The sampling of vibrocores will require no percussive methods.

Vibrocores will allow the recovery of samples from the seabed down to a maximum of 6 m. Further information on the vibrocore samples is provided in Table 3.

### 3.4.3 Deep Push CPTs

Seabed CPT will allow for the characterisation of soil properties without the need for sample collection. The methodology will consist of pushing a cylindrical probe with a conical base continuously from the seabed level down to target depth, or to refusal if the target depth cannot be achieved. Further information on the CPT parameters is provided in Table 3.

The immediate physical impact of this method is a maximum 4.4 cm diameter hole below seabed that will close naturally shortly after retrieval due to lateral soil and hydrostatic pressures. No material will be removed from the seabed or below the seabed and no drilling operations are required.

The seabed CPT campaign will also include a seismic CPT element that is identical to the seabed CPT, with the addition of a number of low-energy hammer triggers on the seabed frame that will allow the measurement of shear wave velocities along the various soil units. Seismic CPT hammers are very low-energy impulsive sources, typically producing underwater sound levels weaker than vessel engine noise. In comparison, seismic survey sources such as airguns or sparkers are many orders of magnitude greater and not to be confused with seismic CPT hammers. Given the low source level, short duration and limited frequency of occurrence, the acoustic characteristics and potential effects are anticipated to be more comparable to non-impulsive sources. Consequently, seismic CPT noise has been assessed alongside other non-impulsive activities for the purposes of impact evaluation.

## 3.5 Safety

### 3.5.1 Health and Safety

Before mobilisation, the contractor will produce a full QHSSE plan.

The project kick-off meeting will be held onboard the vessel prior to departure and will be attended by everyone involved in the fieldwork, including RWE's representative and the vessel manager. Its purpose is to brief all parties on the scope of work, data requirements, and, importantly, safety aspects and procedures. The project manager will record the discussion and update the PEP accordingly, before circulating it to all involved.

### 3.5.2 Weather

The contractor's meteorologists and oceanographers will work closely with the survey teams. To allow for safe and efficient programming of works, they will issue the following to all offshore and nearshore geophysical and geotechnical vessels:

- ▲ Twice daily weather forecasts with a 5-day weather outlook period;
- ▲ Weather windows forecast; and
- ▲ Supply of weather imagery.

The forecasts will comprise:

- ▲ Meteorological situation;
- ▲ 24-hour warning section;
- ▲ Tabular forecast at 3-hourly intervals 120 hours ahead for wind, waves and current data;
- ▲ Built-in operational limit exceedance based on vessel limits;
- ▲ Advanced forecast models available to our forecasting team, including Fugro's own inhouse high-resolution metocean numerical models; and
- ▲ Graphic wave and surface wind presentation.

### 3.5.3 UXO

The contractor will take all risk of UXO and ensure that the areas are reduced to As Low As Reasonably Practicable (ALARP) before any intrusive activities commence.

## 4 Supporting Environmental Information

Table 4 below provides an overview of the identified receptors using the 'Source-Pathway-Receptor' model, alongside the potential impacts and environmental appraisal. The potential impact pathways identified are primarily derived from the relevant chapters of the ES and associated application documents that accompanied Marine Licence ORML2233. It intends to provide NRW with the necessary information to determine the Marine Licence application and has been presented to be proportionate to the scale and type of proposed works.

It is noted that the environmental effects of the geotechnical surveys applied for in this licence are far smaller in scale when compared to the full suite of works applied for in Marine Licence ORML2233. As such, any impacts will be no greater in magnitude than those assessed in the ES chapters that accompanied the Marine Licence application ORML2233.

When considering the effects of these geotechnical survey works in isolation, there are a number of important factors to bear in mind when considering their environmental impacts, as well as the sensitivity of receptors to those impacts:

- ▲ The footprints of the sampling events are small and discrete;
- ▲ The undertaking of the survey will be over a relatively short duration at each sample location (no more than a few hours per location, depending on the ground conditions encountered);
- ▲ Any noise from the site investigation surveys will be limited (geotechnical works will result in low frequency sound, at a level within or below the typical sound levels produced by shipping); and
- ▲ The survey activity will be short-term and temporary.

Table 4: Consideration of Environmental Receptors and Potential Impacts.

RECEPTOR	POTENTIAL IMPACT	SUPPORTING INFORMATION
<p>Marine Geology, Oceanography and Physical Processes</p>	<p>Direct effects from physical seabed disturbance of geotechnical testing equipment</p>	<p>The interaction between the seabed and survey equipment has the potential to give rise to suspended sediment plumes and highly localised changes in bed levels as material settles out of suspension. The limited width/footprint of the plume feature means that specific locations will only be affected by an increase in Suspended Sediment Concentration (SSC) for the limited duration it takes for the plume to be advected past by the tide. Physical processes receptors will be insensitive to highly localised changes in SSC, and changes to bed levels associated with the sediment disturbance activities will be immeasurable in practice.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as minor adverse (and therefore not significant in Environmental Impact Assessment (EIA) terms) within the marine geology, oceanography and physical processes chapter of the ES that accompanied ORML2233 (document reference 6.2.2). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
<p>Marine Water and Sediment Quality</p>	<p>Direct effects from physical seabed disturbance of geotechnical testing equipment</p>	<p>The interaction between the seabed and survey equipment has the potential to give rise to suspended sediment plumes and highly localised changes in bed levels as material settles out of suspension. It is considered unlikely that changes in water quality through increased SSCs, as a result of geotechnical surveys, will result in notable changes in phytoplankton abundance and/ or assemblage. Furthermore, any disturbance of sediment undertaken within the Array Area is not anticipated to impact on the designated WFD waterbodies (see Section 6). Elevated SSC would be highly localised to the Array Area and short lived as sediments readily disperse.</p> <p>The interaction between the seabed and survey equipment also has the potential to give rise to the release of sediment-bound contaminants from disturbed sediments. However, sediment contamination within the Array Area is considered to be very low. The release of sediment bound contaminants is likely to be rapidly dispersed and diluted with the tidal currents, and therefore increased bioavailability resulting in adverse eco-toxicological effects is not expected.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the marine water and sediment quality chapter of the ES that accompanied ORML2233 (document reference 6.2.3). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>

RECEPTOR	POTENTIAL IMPACT	SUPPORTING INFORMATION
Offshore Ornithology	Disturbance and Displacement from survey vessel movement, presence, noise and lighting	<p>Disturbance activities will be both temporally and spatially restricted to the Array Area which the geotechnical surveys will take place. Furthermore, ornithology receptors are likely to be habituated to vessel movements due to the existing presence of vessel traffic (such as that of the existing Operation and Maintenance (O&amp;M) vessels for the adjacent GyM.</p> <p>Best practice techniques will be followed, including the avoidance of aggregations of rafting seabirds and the avoidance of over-revving of engines. Vessel crews will be briefed on these best practice techniques.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), construction effects of disturbance and displacement within the Array Area were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the offshore ornithology chapter of the ES that accompanied ORML2233 (document reference 6.2.4). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
	Indirect impacts through effects on habitat and prey species	<p>During geotechnical surveys, there is the potential for indirect effects on offshore ornithology arising from impacts on prey species affecting their availability. Underwater noise may cause mobile prey species to avoid the Array Area. SSC may cause fish and mobile invertebrates to avoid the Array Area, smother and hide immobile benthic prey and make it harder for seabirds to see their prey in the water column. However, habitat disturbance to prey species and increases in suspended sediment will be temporary, short-term and small in extent.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), construction effects of indirect impacts through effects on habitat and prey species within the Array Area were assessed as negligible (and therefore not significant in EIA terms) within the offshore ornithology chapter of the ES that accompanied ORML2233 (document reference 6.2.4). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Benthic, Subtidal and Intertidal Ecology	Direct effects from physical seabed disturbance of geotechnical testing equipment	<p>The potential impact on benthic habitats is predicted to be of local spatial extent (i.e. restricted to discrete areas in which the surveys are taking place), short-term duration (as it is limited to the duration of survey activities), intermittent and with high reversibility. The faunal communities that characterise the sandy biotopes present within the Array Area include infaunal mobile species such as polychaetes and bivalves. Such species can re-enter the substratum following temporary habitat disturbance. The recoverability of such communities is likely to occur as a result of the combination of migration from adjacent surrounding unaffected areas combined with larval dispersal.</p>

RECEPTOR	POTENTIAL IMPACT	SUPPORTING INFORMATION
		<p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the benthic subtidal and intertidal ecology chapter of the ES that accompanied ORML2233 (document reference 6.2.5). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Fish and Shellfish Ecology	Direct effects from physical seabed disturbance of geotechnical testing equipment	<p>The potential impact on fish and shellfish is predicted to be of local spatial extent (i.e. restricted to discrete areas in which the surveys are taking place), short-term duration (as it is limited to the duration of survey activities), intermittent and with high reversibility. In general, fish are able to avoid temporary direct disturbance (EMU, 2004). Shellfish species are considered to have a more limited ability to avoid direct effects due to the relative energetic costs or speed of movement (i.e., scallops) or behaviours (e.g., during breeding) that may make them more susceptible to direct effects due to a sedentary habit. However, due to the predicted local spatial extent, short-term duration and intermittent and reversible nature of the impact, the magnitude of the impact will be low (adverse).</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the fish and shellfish ecology chapter of the ES that accompanied ORML2233 (document reference 6.2.6). Due to works applied for within this geotechnical site investigation Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
	Underwater noise	<p>Underwater noise can potentially have a negative impact on fish and shellfish species ranging from behavioural effects to physical injury/mortality. In general, mobile species are able to flee, reducing vulnerability, while stationary receptors exhibited higher sensitivity. Irrespective of this, any potential impacts from noise from the site investigation surveys will be spatially limited, short-term and intermittent. Therefore the magnitude of the impact will be low.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the fish and shellfish ecology chapter of the ES that accompanied ORML2233 (document reference 6.2.6). Due to works applied for within this geotechnical site investigation Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Marine Mammals	Vessel disturbance	<p>The area in which the geotechnical surveys are to take place already experiences high levels of vessel traffic. Therefore, the introduction of an additional vessel for the purpose of geotechnical surveys is not a novel impact for marine mammals present in the area. The commitment to the</p>

RECEPTOR	POTENTIAL IMPACT	SUPPORTING INFORMATION
		<p>adoption of best practice vessel-handling protocols (e.g. following the Codes of Conduct provided by the WiSe Scheme, Scottish Marine Watching Code or Guide to Best Practice for Watching Marine Wildlife) during the surveys will minimize the potential for any impact.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the marine mammals chapter of the ES that accompanied ORML2233 (document reference 6.2.7). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
	Underwater noise	<p>A study by Bach <i>et al.</i>, 2013 concluded that the drilling works associated with offshore oil and gas drilling activities, which result in substantially higher noise levels than those anticipated to result from the geotechnical surveys, do not pose a significant threat to small cetaceans. The results showed that only short-term behavioural effects could be expected, even during activities that result in high sound intensity levels. Such levels are highly unlikely to be created as a result of the proposed geotechnical works. A study by Erbe and McPherson (2017) measured the underwater noise generated from geotechnical drilling, which were recorded at 142–145 dB re 1 µPa rms @ 1 m (30–2000 Hz) for drilling (noting potential underwater noise from vibrocores and CPTs will be less than that of geotechnical drilling). By comparison, vessel noise levels for AyM are predicted to be 161-168 dB re 1 µPa rms @ 1 m. Therefore, the noise generated by the geotechnical surveys (including seismic CPTs) is expected to be less than that generated by the vessel undertaking the survey.</p> <p>Furthermore, the guidance identifies that noise disturbance is only likely to cause an offence (in European Protected Species (EPS) terms) where it persists and is chronic in nature. The noise associated with the geotechnical works will be short term, temporary and intermittent, therefore no potential for significant effects from the geotechnical survey are expected.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the marine mammals chapter of the ES that accompanied ORML2233 (document reference 6.2.7). Due to works applied for within this marine licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Commercial Fisheries	Vessel disturbance and displacement	<p>All fishing fleets are considered to be able to avoid vessel movements related to AyM geotechnical surveys. The impact is predicted to be of regional spatial extent, short term duration, intermittent and high reversibility. A Notice to Mariners shall be issued ahead of the work, detailing the locations of the work.</p>

RECEPTOR	POTENTIAL IMPACT	SUPPORTING INFORMATION
		<p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as negligible or minor adverse (and therefore not significant in EIA terms) within the commercial fisheries chapter of the ES that accompanied ORML2233 (document reference 6.2.8). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Shipping and Navigation	Increased vessel collision risk	<p>The survey will require a maximum of one vessel at any one time, representing a minimal increase in vessel traffic. The vessel shall display the appropriate lighting and navigational warnings to other vessels (as prescribed in the International Rules for the Prevention of Collisions at Sea (COLREGS) Rule 27, to indicate that the survey vessel is restricted in its ability to manoeuvre). A Notice to Mariners shall be issued ahead of the work, detailing the locations of the work.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as broadly acceptable or tolerable (and therefore not significant in EIA terms) within the shipping and navigation chapter of the ES that accompanied ORML2233 (document reference 6.2.9). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Offshore Archaeology and Cultural Heritage	Direct effects from physical seabed disturbance of geotechnical testing equipment	<p>The identified Archaeological Exclusion Zones (AEZ) will inform the exact location of sample locations so that the geotechnical survey works avoid any archaeological features. In addition, an archaeological method statement will be developed and agreed with the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), detailing how site investigations may contribute towards our understanding of the archaeological environment.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as minor to negligible adverse (and therefore not significant in EIA terms) within the shipping and navigation chapter of the ES that accompanied ORML2233 (document reference 6.2.11). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>
Other Marine Users and Activities	Direct effects from physical seabed disturbance of geotechnical testing equipment	<p>There will be no overlap between the geotechnical survey and the infrastructure of other marine users (such as other offshore wind farms and non-OWF cables and pipelines) and a Notice to Mariners shall be issued ahead of the work, detailing the locations of the work.</p> <p>In reference to the assessments undertaken for the construction of AyM (ORML2233), all construction effects were assessed as minor (and therefore not significant in EIA terms) within the other marine users</p>

RECEPTOR	POTENTIAL IMPACT	SUPPORTING INFORMATION
		<p>and activities chapter of the ES that accompanied ORML2233 (document reference 6.2.12). Due to works applied for within this Marine Licence application being considerably smaller in scale than those applied for in ORML2233, it can be stated with confidence that the effects will be no greater and are therefore not significant in EIA terms.</p>

## 4.1 Consideration of Cumulative Effects

The characterisation of effects presented in Table 4 above has identified that all effects will be highly localised in extent, short-term and temporary in duration, and will not result in any significant effects. Therefore, there is no potential for geotechnical surveys to contribute to wider effects cumulatively with other plans, projects and activities.

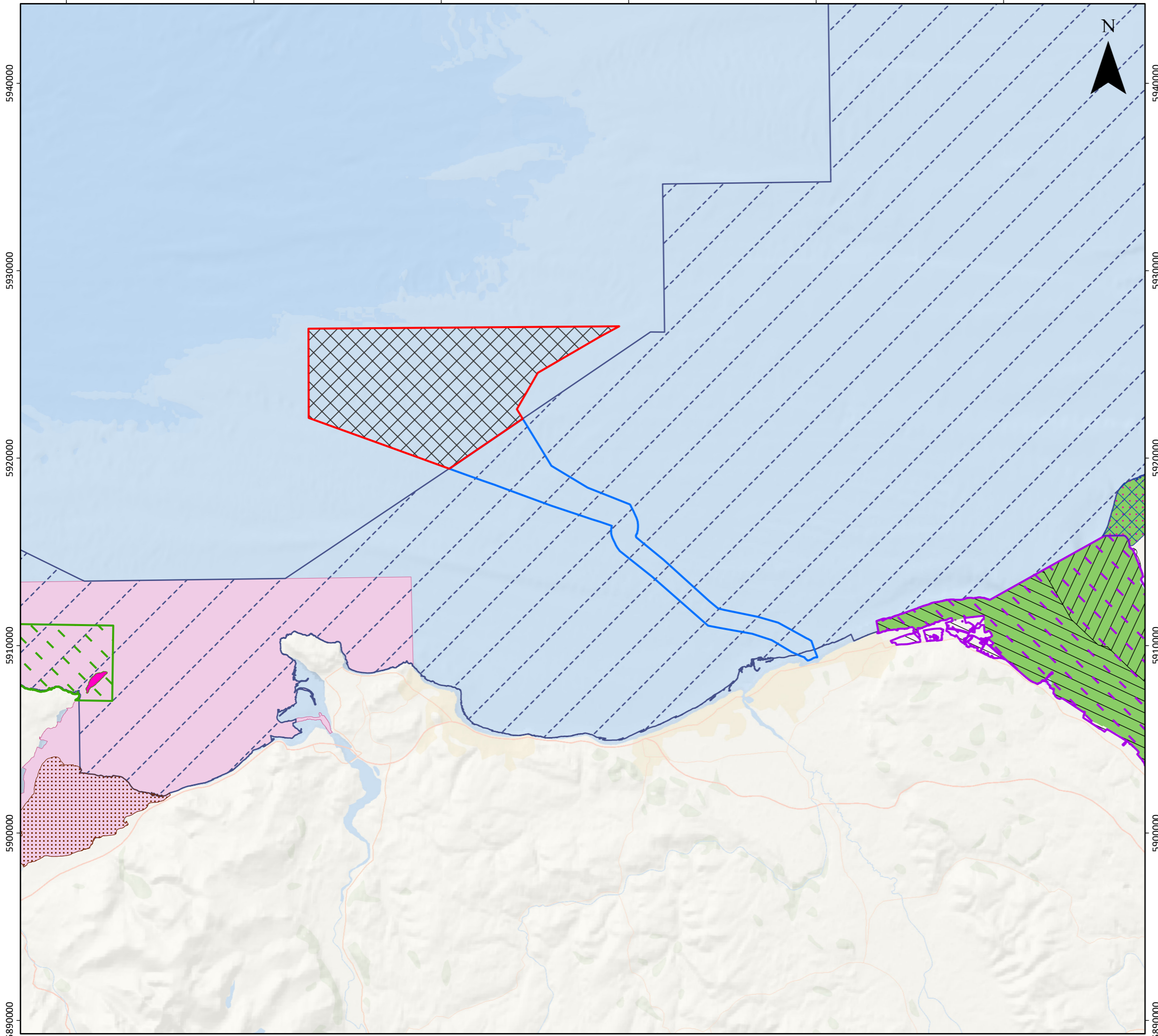
## 5 Consideration of Likely Significant Effects

The consideration of potential effects from the site investigation surveys, as presented in Section 3.2, has demonstrated that all impacts will be localised to the immediate vicinity of the works. Given the small scale and localised nature of any effects, effect pathways to more distant designated sites were considered unlikely. Therefore, the only European Sites considered are those that have a direct physical overlap with, or are directly adjacent to, the proposed works. Only Liverpool Bay/Bae Lerpwl SPA was identified for consideration as it lies adjacent to the Array Area (Figure 2).

As the features of the designated site (birds) are unlikely to be directly affected by seabed disturbance from the sampling process, the only potential effect likely is disturbance from vessels. Impacts are primarily related to vessel disturbance through presence of vessels and noise from geotechnical equipment. It is noted that there will not be significant indirect effects on ornithological prey species, as discussed in Section 3.2. A summary of potential for LSE is outlined in Table 5.

It is noted that a RIAA was submitted with the Marine Licence ORML2233 application (Document reference: 5.2) and concluded that there would be no Adverse Effect on Integrity (no AEoI) on any site designated as part of the UK National Site Network.

430000 440000 450000 460000 470000 480000



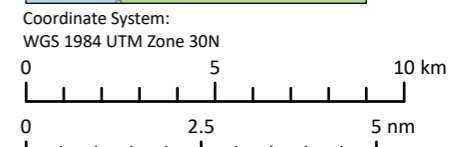
**Awel y Mor - Post Consent Compliance**

**Designated Sites in Relation to the Geotechnical Survey Area**

**Legend**

- Array Area
- Export Cable Corridor
- Geotechnical Survey Area
- Anglesey Terns / Morwenoliaid Ynys Môn SPA
- Mersey Narrows and North Wirral Foreshore SPA
- The Dee Estuary SPA
- Traeth Lafan/ Lavan Sands, Conway Bay SPA
- Ynys Seiriol / Puffin Island SPA
- Liverpool Bay / Bae Lerpwl SPA
- Dee Estuary/ Aber Dyfrdwy SAC
- Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay SAC
- Mersey Narrows & North Wirral Foreshore Ramsar
- The Dee Estuary (England) Ramsar
- The Dee Estuary (Wales) Ramsar

**Notes**  
 OceanWise, Esri, Garmin, NaturalVue, Esri, GEBCO, Garmin, NaturalVue. Contains Ordnance Survey data © Crown copyright and database rights (2022). OS OpenData.



Scale	Date	Drawn By	Checked By	Approved By
1:200,000 @ A3	15/12/2025	GB	CM	JG

Suites B2 & C2  
 Higher Mill  
 Higher Mill Lane  
 Buckfastleigh  
 Devon  
 TQ11 0EN  
 www.gobeconsultants.com  
 +44 (0)1626 323890



**Figure 2**

Table 5: Habitats Regulation Assessment Stage 1 Screening.

DESIGNATED SITE	LOCATION TO PROPOSED WORKS	QUALIFYING FEATURE(S)	POTENTIAL EFFECT(S)	POTENTIAL FOR LIKELY SIGNIFICANT EFFECT
Liverpool Bay/ Bae Lerpwl (UK) SPA	Adjacent	<ul style="list-style-type: none"> <li>▲ Common scoter (non-breeding)</li> <li>▲ Red-throated diver (non-breeding)</li> <li>▲ Red-breasted merganser (non-breeding)</li> <li>▲ Common tern (passage)</li> <li>▲ Little tern (passage)</li> <li>▲ Little gull (non-breeding)</li> </ul>	<ul style="list-style-type: none"> <li>▲ Disturbance and displacement</li> </ul>	<p>Disturbance activities will be both temporally and spatially restricted to the area within which the surveys are taking place. Furthermore, ornithology receptors are likely to be habituated to vessel movements due to the existing presence of vessel traffic (such as that of the existing O&amp;M vessels for the adjacent GyM). Best practice techniques will be followed, including the avoidance of aggregations of rafting seabirds and the avoidance of over-revving of engines. Vessel crews will be briefed on these best practice techniques. Therefore, there is no potential for LSE at this site.</p>

As discussed above, the potential impact from the site investigation surveys on the qualifying features of the Liverpool Bay/ Bae Lerpwl SPA is negligible, with no potential for LSE, any in-combination effects can be reasonably ruled-out based on a negligible contribution from the Project.

## 6 WFD Compliance Assessment

Transitional and coastal water bodies are protected under the Water Framework Directive with the aim of achieving good overall status. Therefore, a licensed project or activity seaward of Mean High-Water Springs and up to 1 nautical mile (nm) must demonstrate that it will not cause 'deterioration in the water body'. The Array Area is located 4.7 nm offshore, 8.7 km from nearest WFD water body (North West coastal water body). Therefore, due to distance between the waterbody and the geotechnical survey and the localised, temporary nature of the works, there will be no deterioration anticipated on the chemical or ecological status of any waterbody as a result of the survey.

Nevertheless, it is noted that a WFD Compliance Assessment was completed and submitted with the main Marine Licence application (Document reference: 6.4.3.1) as well as for the previous geotechnical survey Marine Licence application (RML2323) which both concluded that there would be no deterioration in status of any WFD waterbody.

# 7 Marine INNS Biosecurity Risk Assessment

In accordance with NRW guidance, a Marine INNS Biosecurity Risk Assessment and Management Plan for the geotechnical surveys is presented in Appendix B. It should be noted that at the time of submission of the Marine Licence Application, the appointed survey vessel contractor has not yet been confirmed; however, all relevant details will be shared with stakeholders prior to the commencement of survey activities.

To minimise the risk of introducing invasive non-native species (INNS), adherence to industry legislation, codes of conduct and/ or best practice to reduce the risk of introduction or spread of INNS. Such measures would typically include ensuring vessels have adequate ballast water treatment systems and adherence to vessel-specific biofouling management plans. Further detail will be provided in an updated biosecurity risk assessment once a vessel has been contracted.

## 8 Conclusion

This SEI accompanies the AyM Marine Licence application for undertaking geotechnical surveys between April 2026 and April 2027. This SEI is intended to provide NRW and their statutory advisers (where relevant) with the necessary supporting information to inform the Marine Licensing process for the proposed works.

Environmental receptors that may be affected by the survey works have been identified and duly assessed. No significant effects are predicted to occur because of the site investigation surveys given their small scale and short duration. Similarly, there is considered to be no potential for significant cumulative effects from the proposed works.

Designated sites that have the potential to be affected by the proposed survey have been identified and assessed for the potential for LSE. Consideration of the potential effects on the Conservation Objectives of each site has been undertaken and it has been concluded that there is no LSE predicted on any of the identified designated sites as a result of the survey either alone or in-combination.

## 9 References

Bach, S. S., Skov, H. and Piper, W. (2010). Acoustic monitoring of marine mammals around offshore platforms in the North Sea and impact assessment of noise from drilling activities. In: SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production. Rio de Janeiro, Brazil, 12–14 April 2010. Society of Petroleum Engineers. DOI: 10.2118/126651-MS.

EMU Ltd. (2004). Guidelines for the conduct of offshore wind farm environmental impact assessments. Report to the Department of Trade and Industry (DTI), UK.

Erbe, C. and McPherson, C. (2017). Underwater noise from geotechnical drilling and standard penetration testing. *The Journal of the Acoustical Society of America*, 142(3), EL281–EL285.

## Appendix A: Marine Plan Policy Assessment

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
GEN_01	Planning policy	There is a presumption in favour of the sustainable development of the plan area in order to contribute to Wales' well-being goals.	Yes	The site investigation surveys have been designed to support the sustainable development of the Welsh marine area by informing evidence-based decisions that underpin AyM. This approach aligns with Wales' well-being goals by promoting a prosperous and resilient marine economy and safeguarding biodiversity through responsible planning.
GEN_02	Planning policy	Relevant public authorities should take a proportionate, risk-based approach to application of relevant marine planning policies in decision making.	N/A	This policy is intended for public authorities when making decisions and does not apply directly to the Applicant. Nevertheless, the Supporting Environmental Information (SEI) document provides a proportionate assessment relevant to the scale of works.
ECON_01	Sustainable economic growth	Proposals for economically sustainable activities are encouraged, particularly where they contribute to: <ul style="list-style-type: none"> <li>• the sustainable management of natural resources thereby supporting ecosystem resilience;</li> <li>• a more resilient economy;</li> <li>• employment opportunities particularly for coastal communities;</li> <li>• protecting and creating employment at all skill levels;</li> <li>• maintaining communities with a high-density of Welsh speakers; and/or</li> <li>• tackling poverty by supporting deprived coastal communities.</li> </ul>	Yes	The site investigation surveys provide essential data that underpins the design and delivery of the AyM offshore wind development. These surveys reduce project risk and support efficient, cost-effective planning, ensuring the long-term viability and profitability of the wider development. By enabling a major renewable energy project, they help create enduring employment opportunities across multiple skill levels (for example from engineering and marine science to operations and maintenance) supporting Wales' transition to a sustainable, low-carbon economy.
ECON_02	Coexistence	Proposals should demonstrate how they have considered opportunities for coexistence with other compatible sectors in order to optimise the value and use of the marine area and marine natural resources.	Yes	The SEI document outlines measures to promote coexistence with other marine activities, such as commercial fisheries, shipping and navigation, and other marine users and activities. Key information regarding survey activities will be communicated through appropriate channels, including the issuance of Notices to Mariners. The Applicant has an appointed Fisheries Liaison Officer (FLO) who is responsible for communicating project-related activities (including surveys) to the local fishing community. These steps ensure efficient use of marine space and resources while reducing potential impacts on other users.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
SOC_01	Access to the marine environment	Proposals that maintain or enhance access to the marine environment are encouraged.	No	The site investigation surveys do not present opportunities to incorporate features that enhance biodiversity or geological value; however, they will not restrict access to the marine environment. Nevertheless, it is noted that the site investigation surveys will generate data that will contribute to a broader understanding of local geological characteristics, such as seabed morphology.
SOC_02	Well-being of coastal communities	Proposals that contribute to the well-being of coastal communities are encouraged.	Yes	The site investigation surveys are temporary, short-term, and located offshore, with no adverse effects on coastal communities (including tourism or recreation) are predicted. Moreover, site investigation surveys provide essential data that underpins the design and delivery of the AyM offshore wind development which will help create enduring employment opportunities across multiple skill levels and supporting Wales' transition to a low-carbon economy.
SOC_03	Marine pollution incidents	Proposals should demonstrate how they minimise their risk of causing or contributing to marine pollution incidents.	Yes	The site investigation surveys have the potential to cause marine pollution through the use of fuels, oils, and coatings. However, best practice measures will be implemented thereby minimising the risk of potential marine pollution incidents.
SOC_04	Welsh language and culture	Proposals that contribute to the promotion and facilitation of the use of the Welsh language and culture are encouraged.	No	The site investigation surveys do not relate to the promotion or facilitation of Welsh language or culture and therefore have no interaction with this policy. The site investigation surveys will not adversely affect Welsh language or cultural interests. Nevertheless, it is noted that a Community Linguistic Statement was submitted for ORML2233 (document reference 6.14) which concluded that AyM does not impede the ability to achieve the relevant national and local Welsh language policy objectives, and confirmed all non-technical public facing signage within the development site during construction and operation will be bilingual.
SOC_05	Historic assets	Proposals should demonstrate how potential impacts on historic assets and their settings have been taken into consideration and should, in order of preference: a) avoid adverse impacts on historic assets and their settings; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and	No	Given the scale of the site investigation surveys, any potential impacts are expected to be minimal, and no significant effects on the historic environment or heritage assets are anticipated. See the section 4 of the SEI for further information.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
		convincing case for proceeding. Opportunities to enhance historic assets are encouraged.		
SOC_06	Designated landscapes	Proposals should demonstrate how potential impacts on the purposes and special qualities for which National Parks or Areas of Outstanding Natural Beauty have been designated have been taken into consideration and should, in order of preference: a) avoid adverse impacts on designated landscapes; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Opportunities to enhance designated landscapes are encouraged.	No	Due to the limited scale of the survey, restricted to a maximum of one vessel operating across the array area, the site investigation surveys will not change the seascape of the Welsh Marine Area.
SOC_07	Seascapes	Proposals should demonstrate how potential impacts on seascapes have been taken into consideration and should, in order of preference: a) avoid adverse impacts on seascapes; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and	No	Due to the limited scale of the survey, restricted to a maximum of one vessel operating across the array area, the site investigation surveys will not change the seascape of the Welsh Marine Area.

WNMP POLICY NO.	WNMP POLICY	DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?	
		convincing case for proceeding. Opportunities to enhance seascapes are encouraged.		
SOC_08	Resilience to coastal change and flooding	Proposals should demonstrate how they are resilient to coastal change and flooding over their lifetime.	No	The site investigation surveys are temporary and located offshore, with no permanent infrastructure or long-term presence. Consequently, considerations relating to resilience against coastal change or flooding over a project lifetime are not applicable, and the works do not interact with this policy.
SOC_09	Effects on coastal change and flooding	Proposals should demonstrate how they: avoid significant adverse impacts upon coastal processes; and minimise the risk of coastal change and flooding; Proposals that align with the relevant Shoreline Management Plan(s) and its policies are encouraged.	No	The site investigation surveys do not involve any permanent infrastructure. They are temporary and located offshore, with no significant impact on coastal processes, coastal change, or flooding risk.
SOC_10	Minimising climate change	Proposals should demonstrate how they, in order of preference: a) avoid the emission of greenhouse gases; and/or b) minimise them where they cannot be avoided; and/or c) mitigate them where they cannot be minimised. Where significant emission of greenhouse gases cannot be avoided, minimised or mitigated, proposals for regulated activities must present a clear and convincing case for proceeding.	Yes	The site investigation surveys will involve vessel operations, which are expected to generate minor greenhouse gas emissions. While it is not possible to eliminate these emissions entirely, the works are temporary, the associated emissions are considered negligible. Nevertheless, it is important to note that the site investigation surveys provide essential data to inform the design and delivery of the AyM offshore wind development which will supporting Wales' transition to a low-carbon economy.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
SOC_11	Resilience to climate change	Proposals should demonstrate that they have considered the impacts of climate change and have incorporated appropriate adaptation measures, taking into account Climate Change Risk Assessments for Wales. Proposals that contribute to climate change adaptation and/or mitigation are encouraged.	Yes	The site investigation surveys will be short-term and located offshore, meaning climate change adaptation measures are not applicable. However, it is important to note that the survey contributes to the AyM offshore wind development, which will provide substantial long-term benefits for climate change mitigation by enabling renewable energy generation and reducing greenhouse gas emissions.
ENV_01	Resilient marine ecosystems	Proposals should demonstrate how potential impacts on marine ecosystems have been taken into consideration and should, in order of preference: a) avoid adverse impacts; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Proposals that contribute to the protection, restoration and/or enhancement of marine ecosystems are encouraged.	Yes	The SEI document considers the potential impacts on marine ecosystems as a result of the site investigation surveys. The potential impacts from the surveys will be temporary and short-term, avoiding significant adverse impacts on marine ecosystems. Overall, the assessment concludes that there will be no significant effects, either alone or cumulatively. See the section 4 of the SEI for further information.
ENV_02	Marine Protected Areas	Proposals should demonstrate how they: avoid adverse impacts on individual Marine Protected Areas (MPAs) and the coherence of the network as a whole; have regard to the measures to manage MPAs; and avoid adverse impacts on designated sites that are not part of the MPA network.	No	An assessment of the potential impacts from the site investigation surveys on MPAs within the vicinity of the surveys has been provided in Section 5 of the SEI. Overall, it has been concluded that there will be no adverse effect on integrity on any designated site from the site investigation surveys, either alone or in-combination.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
ENV_03	Invasive non-native species	Proposals should demonstrate how they avoid or minimise the risk of introducing and spreading invasive non-native species. Where appropriate, proposals should include biosecurity measures to reduce the risk of introducing and spreading of invasive non-native species.	Yes	The SEI document provides a Marine Invasive Non-Native Species (INNS) Biosecurity Risk Assessment and Management Plan for the site investigation surveys. To minimise the risk of introducing INNS, adherence to industry legislation, codes of conduct and/ or best practice to reduce the risk of introduction or spread of INNS. Such measures would typically include ensuring vessels have adequate ballast water treatment systems and adherence to vessel-specific biofouling management plans. Further detail will be provided in an updated biosecurity risk assessment once a vessel has been contracted.
ENV_04	Marine litter	Proposals should demonstrate how they: avoid the deliberate introduction of litter into the marine plan area; and minimise the risk of accidental release of litter.	No	All equipment associated with the site investigation surveys will be removed on completion, therefore avoiding the release of litter into the marine environment.
ENV_05	Underwater noise	Proposals should demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference: a) avoid adverse impacts; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	Yes	The SEI document considers the potential impacts of man-made noise on the marine environment as a result of the site investigation surveys. For all receptors, the assessment concludes that there will be no significant effects, either alone or cumulatively. See the section 4 of the SEI for further information.
ENV_06	Air and water quality	Proposals should demonstrate that they have considered their potential air and water quality impacts and should, in order of preference: a) avoid adverse impacts; and/or b) minimise adverse impacts where they cannot be avoided; and/or c) mitigate adverse impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must	No	The SEI document considers the potential impact to water quality. The assessment concludes that there will be no significant effects, either alone or cumulatively. See the section 4 of the SEI for further information.  The nature and scale of the site investigation surveys are not considered to present a potential impact to air quality.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
		present a clear and convincing case for proceeding.		
ENV_07	Fish species and habitats	Proposals potentially affecting important feeding, breeding (including spawning & nursery) and migration areas or habitats for key fish and shellfish species of commercial or ecological importance should demonstrate how they, in order of preference: a) avoid adverse impacts on those areas; and/or b) minimise adverse impacts where they cannot be avoided; and/or c) mitigate adverse impacts where they cannot be minimised; If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	No	The SEI document considers the potential impacts on fish and shellfish as a result of the site investigation surveys. Overall, the assessment concludes that there will be no significant effects, either alone or cumulatively. See the section 4 of the SEI for further information.
GOV_01	Cumulative effects	Proposals should demonstrate that they have assessed potential cumulative effects and should, in order of preference: a) avoid adverse effects; and/or b) minimise effects where they cannot be avoided; and/or c) mitigate effects where they cannot be minimised. If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Proposals that contribute to positive cumulative effects are encouraged.	No	As assessed within the SEI, all potential effects will be highly localised in extent, short-term and temporary in duration, and will not result in any significant effects. Therefore, there is no potential for site investigation surveys to contribute to wider effects cumulatively with other plans, projects and activities. See the section 4 of the SEI for further information.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
GOV_02	Cross-border and plan compatibility	Relevant public authorities, in making their decisions, should have regard to: any applicable policy in a relevant marine plan; any applicable policy in relevant terrestrial development plans or related documents; the Natural Resources Policy; any relevant local well-being plan(s) (including the local well-being assessment); and evidence in any relevant Area Statement(s) produced by Natural Resources Wales (NRW).	N/A	This policy is intended for public authorities when making decisions and does not apply directly to the Applicant. However, the SEI document provides details on relevant marine policies, along with the considerations outlined in this appendix, to help decision-makers fulfil their responsibilities.
SCI_01	Using sound science responsibly	Relevant public authorities should make decisions using sound evidence and a risk-based, proportionate approach. Where appropriate they should apply the precautionary principle and consider opportunities to apply adaptive management.	N/A	This policy is intended for use by public authorities when making decisions and does not apply directly to the Applicant. The SEI document offers robust evidence and risk-based guidance to help decision-makers implement this policy effectively.
AGG_01a	Aggregates (supporting)	Proposals for new aggregate extraction will be supported, within any tonnage limits, where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for new aggregate extraction, which are unrelated to the site investigation surveys. The surveys do not intersect with any aggregate extraction zones, and there are no exploration activities, production licenses, or application areas nearby. Therefore, the site investigation surveys do not interact with this policy.
AGG_01b	Aggregates (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities: for the sustainable use of wider marine aggregate natural resources; to define and, once in place, further develop and refine Strategic Resource Areas for	No	This policy applies to public authorities and the aggregate sector, which are unrelated to the site investigation surveys. The site investigation surveys do not intersect with any aggregate extraction zones, and there are no exploration activities, production licenses, or application areas nearby. Therefore, the site investigation surveys do not interact with this policy.

WNMP POLICY NO.	WNMP POLICY	DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
	aggregates in order to support the sustainable development of the aggregate sector through marine planning.		
AQU_01a	Aquaculture (supporting) Proposals for new aquaculture developments will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for new aquaculture development, which is not relevant to the site investigation surveys. The surveys do not overlap with aquaculture development areas, and there are no aquaculture activities in the vicinity. Therefore, the site investigation surveys do not interact with this policy.
AQU_01b	Aquaculture (supporting) Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of aquaculture resources including the identification of: natural resources that provide aquaculture potential opportunities to define and, once in place, further develop and refine Strategic Resource Areas for aquaculture in order to support the sustainable development of the aquaculture sector through marine planning.	No	This policy applies to public authorities and the aquaculture sector, which are not directly relevant to the site investigation surveys. The surveys do not overlap with aquaculture development areas, and there are no aquaculture activities in the vicinity. Therefore, the site investigation surveys do not interact with this policy.
D&D_01	Dredging and disposal (supporting) Proposals that maintain navigable channels and long term access to open at-sea disposal sites for appropriate material will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals that maintain navigable channels or access to at-sea disposal sites, which is not relevant to the site investigation surveys. The surveys do not involve dredging or disposal activities and will not affect navigable channels or disposal site access. Therefore, the site investigation surveys do not interact with this policy.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
ELC_01a	Low carbon energy (supporting) wind	Proposals for offshore wind energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations. Proposals for wind >350MW will be considered by UK Government in accordance with relevant national policy. In determining an NSIP for a wind proposal, the decision maker will have regard to this plan. Any determination in relation to energy developments of any scale will be taken in accordance with this plan alongside any other relevant considerations.	Yes	The site investigation surveys directly support the development of the AyM offshore wind development. By providing essential data for design, the site investigation surveys will help to ensure that the AyM is located and developed sustainably, avoiding environmental sensitivities where possible. This demonstrates alignment with the policy objective to support offshore wind energy generation and sustainable marine development.
ELC_01b	Low carbon energy (supporting) wind	<p>In order to understand future opportunities for offshore wind development, including floating technologies, this plan supports strategic planning for the sector. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of wind energy resources including identification of:</p> <ul style="list-style-type: none"> <li>• natural resources that provide potential opportunity for future use;</li> <li>• evidence to de-risk consenting for the sector; and</li> <li>• opportunities to define and, once in place, further develop and refine Strategic Resource Areas for offshore</li> </ul>	No	<p>The site investigation surveys will inform the development of the AyM offshore wind development.</p> <p>Conducting the site investigation surveys and using the data to inform the design of AyM can help ensure sustainable marine development, getting the right project in the right location and avoiding environmental and other sensitivities where possible.</p>

WNMP POLICY NO.	WNMP POLICY	DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
	<p>wind energy resource safeguarding; in order to support the sustainable development of the sector through marine planning.</p> <p>Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.</p>		
ELC_02a	<p>Low carbon energy (supporting) wave</p>	<p>No</p>	<p>This policy applies to proposals for wave energy generation, which is not relevant to the site investigation surveys. The site investigation surveys do not involve wave energy technology and will not affect any wave energy development areas. Therefore, the site investigation surveys do not interact with this policy.</p>
ELC_02b	<p>Low carbon energy (supporting) wave</p>	<p>No</p>	<p>This policy applies to public authorities and the wave energy sector and is not directly relevant to the site investigation surveys. The site investigation surveys do not involve wave energy technology and will not affect any wave energy development areas or contribute evidence for wave energy planning. Therefore, the site investigation surveys do not interact with this policy.</p>

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
	<p>support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.</p>			
ELC_03a	<p>Low carbon energy (supporting) tidal stream</p>	<p>Proposals for tidal stream energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.</p>	No	<p>This policy applies to proposals for tidal stream energy generation, which is not relevant to the site investigation surveys. The site investigation surveys do not involve tidal stream technology and will not affect any tidal energy development areas. Therefore, the site investigation surveys do not interact with this policy.</p>
ELC_03b	<p>Low carbon energy (supporting) tidal stream</p>	<p>In order to understand future opportunities for tidal stream energy development, relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of tidal stream energy resources including identification of:</p> <ul style="list-style-type: none"> <li>• natural resources that provide potential opportunity for future use;</li> <li>• evidence to de-risk consenting for the sector; and</li> <li>• opportunities to define and, once in place, further develop and refine Strategic Resource Areas for tidal stream energy resource safeguarding; in order to</li> </ul>	No	<p>This policy applies to proposals for tidal stream energy generation, which is not relevant to the site investigation surveys. The site investigation surveys do not involve tidal stream technology and will not affect any tidal energy development areas. Therefore, the site investigation surveys do not interact with this policy.</p>

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
	<p>support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.</p>			
ELC_04	<p>Low carbon energy (supporting) tidal range</p>	<p>In order to understand future opportunities for tidal range development, strategic planning for the sector is encouraged. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to:</p> <ul style="list-style-type: none"> <li>• collect evidence to support understanding of environmental constraints and opportunities for the sustainable use of the tidal range resource;</li> <li>• support understanding of the optimal siting of tidal lagoon developments across Wales as part of a wider, UK perspective; and</li> <li>• identify opportunities to define and, once in place, further develop and refine Strategic Resource Areas for tidal lagoon safeguarding purposes.</li> </ul> <p>Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of</p>	No	<p>This policy applies to proposals for tidal range development, which is not relevant to the site investigation surveys. The site investigation surveys do not involve tidal range technology and will not affect any tidal lagoon developments. Therefore, the site investigation surveys do not interact with this policy.</p>

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
	the sector through marine planning, where it is appropriate to do so.			
O&G_01a	Oil and gas (supporting)	Proposals that maximise the economic recovery of oil and gas sustainably will be supported where they comply with the objectives of this plan, and fully meet the environmental safeguards contained within the statutory processes of awarding production licences and subsequent activity-specific approvals. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for oil and gas recovery, which is not relevant to the site investigation surveys. The site investigation surveys do not involve oil and gas activities and will not affect any oil and gas development areas. Therefore, the site investigation surveys do not interact with this policy.
O&G_01b	Oil and gas (supporting)	Welsh Government policy is to avoid the continued extraction of fossil fuels in intertidal areas and estuaries and coastal inlet waters that fall within the Welsh onshore licence area. Applications for new petroleum licenses in these areas should not be supported, unless required for mine safety or scientific purposes. Proposals for the development and extraction of oil and gas in these areas with land based elements must provide robust and credible evidence to demonstrate how they conform to the	No	This policy applies to proposals for fossil fuel extraction in intertidal areas, estuaries, and coastal inlet waters, which is not relevant to the site investigation surveys. The site investigation surveys do not involve petroleum licensing or oil and gas development and will not affect any fossil fuel extraction activities. Therefore, the site investigation surveys do not interact with this policy.

WNMP POLICY NO.	WNMP POLICY	DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?	
	Planning Policy Wales Energy Hierarchy for Planning, including how they make a necessary contribution towards decarbonising the energy system.			
O&G_02	Oil and gas (supporting)	Proposals that support the long-term development of carbon capture and storage technology will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals that support the development of carbon capture and storage (CCS) technology, which is not relevant to the site investigation surveys. The site investigation surveys do not involve CCS activities and will not affect any CCS development areas. Therefore, the site investigation surveys do not interact with this policy.
FIS_01a	Fisheries (supporting)	Proposals that support and enhance sustainable fishing activities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for sustainable fishing activities, which is not relevant to the site investigation surveys. The site investigation surveys do not involve fisheries development and will not affect fishing activities. Therefore, the site investigation surveys do not interact with this policy.
FIS_01b	Fisheries (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities to develop a strategic evidence base to improve understanding of opportunities for the sustainable development of fisheries in order to support the sustainable development of the fisheries sector through marine planning.	No	This policy applies to public authorities and the fisheries sector and is not directly relevant to the site investigation surveys. The site investigation surveys do not involve fisheries activities or contribute evidence for fisheries planning. Therefore, the site investigation surveys do not interact with this policy.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
P&S_01a	Ports and shipping (supporting)	Proposals for ports, harbours and shipping activities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for port, harbour, or shipping development, which is not relevant to the site investigation surveys. The site investigation surveys do not involve such activities and will not affect port or shipping operations. Therefore, the site investigation surveys do not interact with this policy.
P&S_01b	Ports and shipping (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities to support the sustainable development of the ports and shipping sector through marine planning.	No	This policy applies to public authorities and the ports/shipping sector and is not directly relevant to the site investigation surveys. The site investigation surveys do not involve port or shipping development and will not contribute evidence for planning. Therefore, the site investigation surveys do not interact with this policy.
P&S_02	Ports and shipping (supporting)	Proposals that provide for the maintenance, repair, development and diversification of port and harbour facilities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for port and harbour facilities, which is not relevant to the site investigation surveys. The site investigation surveys do not involve such activities and will not affect port or harbour infrastructure. Therefore, the site investigation surveys do not interact with this policy.
CAB_01	Subsea cabling (supporting)	Proposals that facilitate the growth of digital communications networks and/or the optimal distribution of electricity will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for digital communications or electricity distribution, which is not relevant to the site investigation surveys. The site investigation surveys do not involve these activities and will not affect related infrastructure. Therefore, the site investigation surveys do not interact with this policy.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
T&R_01a	Tourism and recreation (supporting)	Proposals that demonstrate a positive contribution to tourism and recreation opportunities and policy objectives (for the sector) around the Welsh coast will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	This policy applies to proposals for tourism and recreation, which is not relevant to the site investigation surveys. The site investigation surveys do not involve tourism or recreation activities and will not affect such opportunities. Therefore, the site investigation surveys do not interact with this policy.
T&R_01b	Tourism and recreation (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for sustainable tourism and recreation around the Welsh coast, including: a) developing a strategic evidence base to improve understanding of current and potential tourism and recreation activities, including eco-tourism and other low impact activities; and b) opportunities to define areas of future opportunity for tourism and recreation; in order to support the sustainable development of the tourism and recreation sector through marine planning.	No	This policy applies to public authorities and the tourism/recreation sector and is not directly relevant to the site investigation surveys. The site investigation surveys do not involve tourism or recreation activities and will not contribute evidence for planning. Therefore, the site investigation surveys do not interact with this policy.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
SAF_01	Safeguarding existing activity	<p>a: Proposals likely to have significant adverse impacts upon an established activity covered by a formal application or authorisation must demonstrate how they will address compatibility issues with that activity. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for the proposal to progress under exceptional circumstances.</p> <p>b: Proposals likely to have significant adverse impacts upon an established activity not subject to a formal authorisation must demonstrate how they will address compatibility issues with that activity. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for proceeding. Under SAF 01 a and b, compatibility should be demonstrated through, in order of preference: a. Avoiding significant adverse impacts on those activities, and/or b. Minimising significant adverse impacts where these cannot be avoided; and/or c. Mitigating significant adverse impacts where they cannot be minimised.</p>	No	The SEI document confirms that the site investigation surveys will not result in significant adverse impacts on established activities, either alone or cumulatively. See the section 4 of the SEI for further information.
SAF_02	Safeguarding strategic resources  <b>Strategic Resource Area for Tidal Stream</b>	Proposals which may have significant adverse impacts upon the prospects of any sector covered by this plan to engage in sustainable future strategic resource use (of resources identified by an SRA) must demonstrate how they will address compatibility issues with that potential resource use. Proposals unable to	No	The site investigation surveys provide essential data that underpins the design and delivery of the AyM offshore wind development, therefore will not result in significant adverse impacts on any sector or strategic resource use.

WNMP POLICY NO.	WNMP POLICY		DOES THE PROJECT HAVE THE POTENTIAL TO IMPACT THE POLICY?	HOW DOES THE PROPOSED PROJECT COMPLY WITH THE POLICY?
	<b>Energy in force January 2025</b>	demonstrate adequate compatibility must present a clear and convincing case for proceeding. Compatibility should be demonstrated through, in order of preference: a. Avoiding significant adverse impacts on this potential strategic resource use, and/or b. Minimising significant adverse impacts where these cannot be avoided; and/or c. Mitigating significant adverse impacts where they cannot be minimised.		
DEF_01	Defence (safeguarding)	Proposals that: <ul style="list-style-type: none"> <li>• potentially affect Ministry of Defence (MOD) Danger Areas, Exercise Areas or strategic defence interests; and/or</li> <li>• potentially interfere with communication, surveillance and navigation facilities necessary for defence and national security; should only be authorised with the agreement of MOD.</li> </ul>	No	The site investigation surveys do not affect any MOD Danger Areas, Exercise Areas, or strategic defence assets. Therefore, the site investigation surveys do not interact with this policy.

## **Appendix B: Marine Invasive Non-Native Species Biosecurity Risk Assessment and Management Plan**

<i>Document version number: (to be completed by marine licensing team)</i>	
<i>Approval date: (to be completed by marine licensing team)</i>	

# Marine Invasive Non-native Species Biosecurity Risk Assessment and Management Plan

A Marine Biosecurity Risk Assessment and Management Plan enables marine operators and contractors to understand and minimise the risk of introducing or spreading marine invasive non-native species (INNS). Management of marine INNS is extremely challenging once they are introduced to a new area. Effective biosecurity measures that minimise the risk of introduction or spread are therefore key to effective management.

## Filling in this form:

To help you fill in this form, see accompanying document “Guidance for completing NRW’s Biosecurity Risk Assessment and Management Plan”. The accompanying document contains clarification of many key terms and also provides guidance on potential pathways of introduction for INNS (Table 1) and level of risk associated with each pathway (Table 2).

## **Structure of this form:**

You will need to fill in Sections A and C. Fill in sections B1 to B5 when relevant to your activity. For further information on what is included in each section see the accompanying guidance document.

### **Section A: Activity overview**

You should complete this section.

### **Section B: Risk Assessment**

#### **B.1 Assessing the pathway risks associated with vessels**

If you are using a vessel (or vessels) as part of your licensed activity you should complete this section. Information on any equipment to be used which can be separated from the vessel should be provided in Section B.4.

#### **B.2 Assessing the pathway risks associated with non-biological materials and water**

If your activity involves the use or transfer of non-biological materials (e.g. water, sediment, construction material) you should complete this section.

#### **B.3 Assessing the pathway risks associated with biological material**

If your activity involves the use or transfer of biological material (including aquaculture) you should complete this section.

#### **B.4 Assessing the pathway risks associated with equipment**

If your activity involves use of equipment which can be separated from their vessel you should complete this section.

#### **B.5 Assessing other pathway risks**

This should be filled in if previous sections do not capture aspects of your activity.

### **Section C: Management Measures**

You should complete this section.

### **Section D: Recommendations**

You should consider this section.

## Section A: Activity overview

Please fill out the activity details below:

Applicant name:	Awel y Môr Offshore Wind Farm Ltd.
<p>Short description of activity:</p> <p><i>(please provide enough detail for NRW to understand the location and the different elements of the project. Links to other documents which describe the project can be provided)</i></p>	<p>The Applicant will undertake an offshore geotechnical site investigation to characterise the site area in order to inform the detailed design and placements of the wind turbines (within the array area), expected to take place during between April 2026 and June 2026 (noting the licence is requested until April 2027).</p> <p>The contractor will perform an offshore geotechnical survey within the Wind Turbine Generator (WTG) array area, followed by reporting and laboratory testing. The fieldwork element will comprise up to 265 Seabed Cone Penetration Tests (CPTs) (up to 50 m penetration) of which, up to 53 will be seismic CPTs, and 80 Vibrocores (up to 6 m penetration).</p> <p>Please refer to the supporting information document for further information.</p>
Estimated timings of proposed licensed activities:	<p>April 2026 – April 2027</p> <p>Works expected to take place between April 2026 and June 2026, with a total of up to 60 vessel days (including bad weather contingency), however a licence has been requested up to April 2027 in case of delays.</p>

## Section B: Risk Assessment

### B.1 Assessing the pathway risks associated with vessels

**B.1.1.** Please list all ports within the UK or overseas that all vessel(s) to be used (both during construction and maintenance) have visited over the 12 months prior to this licensed activity, or since the last out of water period (whichever is most recent).

Please state **N/A** if vessels have not entered any port since the last out of water period.

If you do not yet have the information to complete this section, please state **Unknown**. NRW may ask for this section to be updated when these details are known. The risk should be set as High.

Vessel name	Port / location visited over last 12 months (listed chronologically with dates if known)	Which marine invasive non-native species known to be present at this port(s) / location(s)?	Has the vessel had antifouling? 12 months prior to activity for biocidal coatings, 24 months for biocide-free coatings
Unknown (TBC)	Unknown (TBC)	Unknown (TBC)	Unknown (TBC)

Please indicate the INNS risk level and justification of the risk below, separately for each vessel based on the locations visited in last 12 months. This should take into account the probability of biofouling and vessel antifouling regime. **Note:** Examples of risk levels are given in Table 2 of the accompanying guidance document and there is further information about this section in the accompanying guidance document.

Vessel name / type	Risk Level (High, Medium, Low)	Justification of risk level
Unknown (TBC)	High	Risk should be set as 'High' when vessel details are unknown.

**B.1.2** Please provide details of the vessels (identified in Table B.1.1), which have not had antifouling (within the 12 months prior to the licensed activity for biocidal coatings, or 24 months for biocide-free coatings) and if there is an alternative antifouling management regime.

If there are not additional measures or an alternative biofouling management regime, then please put **None**, and the risk level would not change.

<b>Vessel</b>	<b>Alternative biofouling management regime</b> (e.g. different timeframes for antifouling treatment, vessel storage on land etc.)	<b>Risk Level (High, Medium, low)</b>
Unknown (TBC)	Unknown (TBC)	High

## B.2 Assessing the pathway risks associated with non-biological materials and water

**B.2.1:** Please provide information about the source and receiving environments for non-biological materials and water transferred through the licensed activity from different pathways (for example hopper water, dredge material, construction material).

Pathway	Location (including Coordinates, WGS84)		Relevant Environmental Conditions for INNS species (e.g. salinity and depth differences between source and receiving environments)	List of INNS known to be present	Risk Level (High, Medium or Low)	Justification of risk level
<i>Hull fouling</i>	Source	Unknown (TBC)	A vessel has not been contracted for the works at this stage, however has the potential to transmit live marine INNS via hull fouling, ballast water and the use of equipment (including corers and cones). The project will not involve the deposition of any dredged material or construction material.	Unknown (TBC)	High	Because a vessel cannot be specified at this stage, the risk level has been described as 'high' for all potential pathways.  However, it is expected that any vessel used would adhere to industry legislation, codes of conduct and/ or best practice to reduce the risk of introduction or spread of invasive non-native species. Such measures would typically include ensuring vessels have adequate ballast water treatment systems and adherence to vessel-specific biofouling management plans. These measures would therefore reduce the risk of INNS introduction to a low level.
	Receiving	Refer to co-ordinate spreadsheet				
<i>Ballast water</i>	Source	Unknown (TBC)		Unknown (TBC)	High	
	Receiving	Refer to co-ordinate spreadsheet				
<i>Equipment</i>	Source	Unknown (TBC)		Unknown (TBC)	High	
	Receiving	Refer to co-ordinate spreadsheet				

### B.3 Assessing the pathway risks associated with biological material

**B.3.1** Please provide information about the species that will be used or transferred through the licensed activity and the potential for INNS to be contained in the biological material.

N/A
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**B.3.2:** Please provide information about the source and receiving environments for biological material used or transferred through the licensed activity. Pathways include, for example, transfer of seeded ropes with seaweed or shellfish.

Pathway	Location (coordinates, WGS84) and / or name of culture facility		Relevant environmental conditions for INNS species (e.g. salinity and depth differences between source and receiving environments)	List of INNS known to be present in the location or culture facility	Risk Level (High, Medium or Low)	Justification of risk level
	Source					
	Receiving					
	Source					
	Receiving					

**B.3.3.** If a relevant pathway is identified in Table B.3.2, please outline any relevant biosecurity measures or protocols in place to prevent contamination of material by marine INNS, and introduction or spread of marine INNS.

N/A
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**B.3.4.** Does the transfer have the relevant documentation from the Fish Health Inspectorate at CEFAS (Aquaculture Production Business Registration), or follow other relevant codes of conduct for prevention of the introduction or spread of marine INNS? Please place an X in the relevant box.

Yes	No	Don't know	Not relevant
			X

## B.4 Assessing the pathway risks associated with immersible equipment

**B.4.1.** Please list the immersible equipment expected to be used in this licensed activity in the box below.

<ul style="list-style-type: none"> <li>• CPT equipment</li> <li>• Vibrocore equipment</li> </ul>
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**B.4.2.** Will all the immersible equipment used in this licensed activity undergo washing, rinsing and / or drying as part of routine maintenance at the times described below? Please place an X in the relevant box.

	Yes	No
Immediately prior to departing the <u>port of origin</u> to undertake the licensed activity.	X	
Immediately prior to leaving the licensed activity area on completion of the licensed activity.	X	

**B.4.3.** Will all the immersible equipment used in this licensed activity undergo washing, rinsing and / or drying between different deployments within the activity area of this licensed activity (e.g. different specific locations of dredging or sampling covered under this marine licence)? Please place an X in the relevant box.

Yes	No (please provide reason)
	The equipment will be washed, rinsed and dried between survey campaigns. However, this licence covers a limited area and it is therefore not considered necessary to wash between sampling locations due to the extremely low biosecurity risk.

If you answer No to any of the questions in B.4.2 or B.4.3, then please complete B.4.4 below.

**B.4.4.** Please provide information on the previous location the equipment will have been used prior to the vessel being used for this licensed activity.

Equipment	Location (Coordinates, WGS84)	Risk Level (High, Medium or Low)	Justification of risk level
Unknown (TBC)	Unknown (TBC)	Unknown (TBC)	Unknown (TBC)

## B.5 Assessing other pathway risks

**B.5.1** Please provide any other information on the licensed activity that may produce a risk of the introduction or spread of marine INNS that is not covered in the sections above.

Pathway	Risk Level (High, Medium or Low)	Justification of risk level

# Section C: Management Measures

## C.1 Management Measures

Enter the management measures for the pathways identified in the sections above.

All **high and medium risk** pathways identified in the previous risk assessment (sections B.1 to B.5) should have some degree of additional control or mitigation measures. Low risk pathways may also need additional control or mitigation measures. You may want to consider keeping a logbook to help demonstrate compliance if this is requested.

Pathway (identified in sections above)	Risk Level (High, Medium or Low)	Risk management measure/s	Risk level after management (High, Medium or Low)
All	High	<p>Adherence to industry legislation, codes of conduct and/ or best practice to reduce the risk of introduction or spread of invasive non-native species. Such measures would typically include ensuring vessels have adequate ballast water treatment systems and adherence to vessel-specific biofouling management plans.</p> <p>Further detail will be provided in an updated biosecurity risk assessment once a vessel has been contracted.</p>	Low

## Section D. Recommendations

You may want to consider how compliance with the management measures will be recorded, for example in a log book or via photos.

We also recommend that;

- You identify an individual for monitoring and reporting on biosecurity management plan actions (a biosecurity manager)
- All staff involved in the licensed activity are made fully aware of the possibility that INNS may be encountered and understand what measures will be taken to ensure surveillance / monitoring of INNS during the activity
- All relevant staff are adequately trained in the identification and detection of INNS and to report any instances to the biosecurity manager



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