Morven North Offshore Wind Array Project

Environmental Impact Assessment Report

Volume 4, Annex 1, Appendix 1.2: Invasive Non-native Species Management Plan (INNSMP) and Biosecurity Plan (Version 1)

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Glossary

Term	Meaning
The Applicant	The entity making the Applications; Morven Offshore Wind Limited (MvOWL).
Biofouling	Biological growth which develops on man-made structures in the aquatic environment
Biosecurity manager	An individual responsible for overseeing the development, implementation, and review of monitoring measures to prevent the introduction and spread of harmful biological agents, Invasive Non-Native Species (INNS), or pathogens.
Biosecurity	Taking action in order to minimise the introduction or spread of non-native species or diseases
bridge-linked high voltage direct current (HVDC) offshore substation platform (OSP)	High voltage direct current (HVDC) offshore substation platform (OSP) connected by cabling across a bridge structure.
interconnector cables	Cables connecting offshore substation platforms (OSPs) to each other.
Inter-array cables	Cables connecting wind turbines to each other and to offshore substation platforms (OSPs).
Invasive Non-Native Species	An Invasive Non-Native Species (INNS) is defined as a 'non-native' species that threatens native biological diversity, human health or economic activity.
The Morven North Offshore Wind Array Project (hereafter "Morven North")	The Morven North Offshore Wind Array Project, which includes the wind turbines and foundations, offshore substation platforms (OSPs) and foundations, inter-array and interconnector cables and associated infrastructure located within the Morven North Boundary. Consent for the export cables for Morven North will be sought separately.
Morven North Boundary	Boundary within which the wind turbines and foundations, Offshore Substation Platforms and foundations, inter-array cables and interconnector cables for Morven North will be located.
The Morven Option Lease Agreement Site (hereafter "Morven Site")	The 859km^2 area awarded to the Applicant as a result of the ScotWind leasing round and located in Plan Option area E1. Morven North and Morven South are two distinct projects, located within the Morven Site.
The Morven South Offshore Wind Array Project (hereafter "Morven South")	The Morven South Offshore Wind Array Project, which includes the wind turbines and foundations, offshore substation platforms (OSPs) and foundations, inter-array and interconnector cables and associated infrastructure located within the Morven South Boundary. Consent for the export cables for Morven South will be sought separately.
Morven South Boundary	Boundary within which the wind turbines and foundations, OSPs and foundations, inter-array cables and interconnector cables for Morven South will be located.
Native Species	Also known as indigenous species, means a species occurring within its natural range (past or present) and

Term	Meaning
	dispersal potential, i.e. within the range it occupies naturally or could occupy without direct or indirect introduction or care by humans
Non-Native Species	Non-native species (also known as alien, non-indigenous, foreign or exotic) means a species or subspecies occurring outside its native range i.e. the range it occupies naturally without the intervention of human activity. This includes any part of the species that might survive and subsequently reproduce
Offshore Substation Platforms (OSPs)	OSPs comprise the support structure, topside and electrical components used for collecting the electricity generated by the wind turbine generators for the passage or transmission to landfall. These OSPs can be divided into two types: • HVAC (High Voltage Alternating Current) collector substations; • HVDC (High Voltage Direct Current) converter substations.
Wind turbine	The wind turbine generator.

Acronyms

Acronym	Meaning
CCP	Critical Control Points
CTV	Crew Transport Vessel
ECoW	Ecological Clerk of Works
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EU	European Union
HVDC	High Voltage Direct Current
GB	Great Britain
IMO	International Maritime Organization
INNS	Invasive Non-Native Species
INNSMP	Invasive Non-Native Species Management Plan
MD-LOT	Marine Directorate Licensing Operations Team
MDS	Maximum Design Scenario
MD-SEDD	Marine Directorate Science Evidence Data and Digital
MPA	Marine Protected Area
MPCP	Marine Pollution and Contingency Plan
MvOWL	Morven Offshore Wind Limited

Acronym	Meaning
NNS	Non-Native Species
NSPVMP	Navigation Safety Plan and Vessel Management Safety Plan
O&M	Operations and maintenance
OSP	Offshore Substation Platform
PDE	Project Design Envelope
PSU	Practical Salinity Units
SEPA	Scottish Environment Protection Agency
SPMP	Scour Protection Management Plan
UK	United Kingdom

Units

Unit	Meaning
nm	Nautical miles
km	Kilometre
m	Metre
$m^3/d/m$	Cubic metres transported per day per metre width of transport path (i.e. perpendicular to direction of transport)
m/s	Metres per second (velocity)
PSU	Practical Salinity Units

1 Invasive Non-Native Species Management Plan and Biosecurity Plan

1.1 Background

1.1.1.1 This shared Invasive Non-Native Species Management Plan (INNSMP) and Biosecurity Plan (Version 1) has been developed by Tetra Tech RPS Energy and Morven Offshore Wind Limited (MvOWL) (hereafter "the Applicant"), to support the Morven North Offshore Wind Array Project and Morven South Offshore Wind Array Projects' (hereafter "Morven North and Morven South", respectively) Environmental Impact Assessment (EIA) Reports.

1.1.1.2 This shared INNSMP and Biosecurity Plan (Version 1) will outline the proposed measures to be implemented to prevent and manage Invasive Non-Native Species (INNS) for both Morven North and Morven South at the point of Application. At pre-construction of Morven North and Morven South, this INNSMP and Biosecurity Plan will be updated and will be provided as two plans – one for Morven North and one for Morven South.

1.2 Purpose and scope

1.2.1.1 This INNSMP and Biosecurity Plan (Version 1) has been prepared, considering feedback provided by consultees in the Morven Option Lease Agreement Site Scoping Report (hereafter 'Morven Site Scoping Report' (MD-LOT, 2023)), in relation to INNS. An overview of points raised within the Morven Site Scoping Opinion is available in Table 1.1.

Table 1.1: Responses from consultees in relation to Invasive Non-Native Species from the Morven Site Scoping Opinion

Consultee and date raised	Summary of issue raised	Where this point is addressed
NatureScot 30 November 2023	It is proposed that an Environmental Management Plan (EMP) will set out mitigation measures and procedures relevant, but not limited to, the management of INNS. The EIA Report should provide details on how marine INNS will be considered, monitored and recorded as well as being taken account of within biosecurity plans for each phase of the development.	• This INNSMP and Biosecurity Plan (Version 1); • Volume 4, Annex 1: Environmental Management Plan (Version 1); • Volume 2, Chapter 8: Benthic Subtidal Ecology.
NatureScot 30 November 2023	We welcome the site specific eDNA sampling, which will complement the fish and shellfish survey data and may help to detect rare, cryptic, endangered or invasive species.	Environmental DNA (eDNA) sampling was undertaken to inform the fish and shellfish and benthic subtidal ecology assessments. The assessment of INNS also drew upon the results of eDNA sampling to improve understanding of any species present within the Morven Site. eDNA results are discussed within the below documents and inform this INNSMP and Biosecurity Plan. • Volume 2, Chapter 8: Benthic Subtidal Ecology;

Consultee and date raised	Summary of issue raised	Where this point is addressed
		• Volume 2, Chapter 9: Fish and Shellfish Ecology; • Volume 3, Annex 8.1: Benthic Subtidal Ecology Shared Technical Report; • Volume 3, Annex 9.1: Fish and Shellfish Ecology Shared Technical Report.

1.2.1.2 The purpose of this Version 1 INNSMP and Biosecurity Plan is to provide an overview of the proposed measures to be implemented to ensure biosecurity control and minimise potential impacts on the marine environment associated with Morven North and Morven South, throughout construction, operations and maintenance (O&M) and decommissioning.

1.2.1.3 The INNSMP and Biosecurity Plan will be further developed following the submission of the Morven North and Morven South applications, in advance of the construction phases of Morven North and Morven South. It will be updated in accordance with the relevant requirements of both consent applications, as well as consultation with regulators and key consultees, such as the Marine Directorate – Licensing Operations Team (MD-LOT) and NatureScot. It is assumed that ports supporting vessel movements for Morven North and Morven South will implement port-specific INNSMP and Biosecurity Plans which will be subject to consultation with relevant consultees such as the Scottish Environment Protection Agency (SEPA). The Morven North and Morven South INNSMP and Biosecurity Plan will be further updated prior to the O&M phase commencing, and subsequently prior to decommissioning.

1.2.1.4 This INNMP and Biosecurity Plan (Version 1) provides provisional roles (naming and associated responsibilities), however, the Applicant reserves the right for listed roles and responsibilities to be carried out by alternative personnel within the applicant team. The final roles, naming of said roles, and responsibilities will be confirmed during the pre-construction phase, with the associated INNMP and Biosecurity Plan submitted for approval by MD-LOT. The delivery of the key responsibilities listed in this INNMP and Biosecurity Plan (Version 1), are committed to at this pre-application stage.

1.2.1.5 The legislation and guidance that outline the approach to managing INNS and biosecurity at a European Union and United Kingdom level include the following:

- EU Regulation 11/43/2014 on the prevention and management of the introduction and spread of invasive alien species;
- The Wildlife and Countryside Act 1981;
- International Convention for the Control and Management of Ships' Ballast Water and Sediments (adopted in 2004);
- MGN 398 (M+F) Amendment 1: The merchant shipping (anti-fouling systems) regulations 2024
- Resolution MEPC.378(80) 2023 guidelines for the control and management of ships' biofouling to minimise the transfer of invasive aquatic species
- The Invasive Non-Native Species (Amendment etc.) (European Union (EU) Exit) Regulations 2019;
- The Invasive Alien Species (Enforcement and Permitting) Order 2019;
- The Animal Welfare and Invasive Non-Native Species (Amendment etc.) (EU Exit) Regulations 2020;
- Marine Biosecurity Planning. Guidance for Producing Site and Operation-based Plans for Preventing the Introduction of Non-Native Species (Payne *et al*., 2014).

1.2.1.6 In Scotland, INNS are regulated under Section 14 of the Wildlife and Countryside Act 1981, as amended by the Wildlife and Natural Environment (Scotland) Act 2011, which came into force in 2012.

1.2.1.7 Additionally, the Code of Practice on Non-Native Species was published by the Scottish Government (2012), within the same year, which sets out the structure of responsibilities to individuals, businesses and developers, providing practical guidance as to how developers can act in accordance with the law, to ensure INNS do not cause harm to the marine environment.

1.2.1.8 The code sets out the Scottish Government's advised approach to non-native species in a three-stage hierarchical approach, focusing on:

- prevention;
- early detections, surveillance, monitoring and rapid response;
- long term management and control.

1.2.1.9 The most recent guidance is provided under the Great Britain Invasive Non-Native Species Strategy (Department for Environment, Food and Rural Affairs, The Scottish Government and Welsh Government, 2023). The Great Britain INNS Strategy outlines the following key outcomes it aims to achieve by 2030:

- **Prevention**: reduce establishments of INNS by at least 50% compared to 2000 levels.
- **Surveillance**: early detection and monitoring: significantly improve detection and monitoring capability, including increasing inspections and investigations.
- **Management**: eradicate, control or contain INNS, prioritised by greatest impact and the likelihood of success.
- **Prioritisation and risk analysis**: set out an agreed approach to the prioritisation of species based on risk and likelihood of success to ensure efforts are focused on where they can achieve the greatest benefit.
- **Evidence**: commission the research priorities outlined in the Evidence Strategic Plan, to ensure that the strategy is based on the best available evidence and identify gaps and priority areas for further development.
- **Awareness raising**: increase awareness of INNS issues and promote appropriate changes in behaviour or attitudes throughout all relevant sectors and among the general public.
- **Coordination**: improve coordination of actions within governments, government-associated bodies, and key actors outside government.

1.2.1.10 The Great Britain INNS Strategy emphasises the prevention of INNS introduction as an initial measure to minimise INNS, therefore this INNSMP and Biosecurity Plan will focus on providing tools and measures to prevent and manage introduction of INNS, to retain biosecurity.

1.3 Structure of the document

1.3.1.1 This INNSMP and Biosecurity Plan has the following structure:

- Section 2: Morven North and Morven South background and consents;
- Section 3: roles and responsibilities;
- Section 4: the methodology of the INNSMP and Biosecurity Plan;
- Section 5: the Morven North and Morven South shared INNSMP and Biosecurity Plan;
- Section 6: Further sources of information.

2 Morven North and Morven South background and consents

2.1.1.1 Morven North and Morven South are both located within the Morven Option Lease Agreement Site (hereafter "Morven Site") in Scottish offshore waters (Figure 2.1). Morven North is located approximately 61km from the Aberdeenshire coast (at its closest point) and Morven South is located approximately 86km from the Aberdeenshire coast (at its closest point). Each project will comprise wind turbines, Offshore Substation Platforms (OSPs), associated foundations, inter-array and interconnector cables and cable protection.

2.1.1.2 The parameters and associated infrastructure of Morven North and Morven South are selected from the Project Design Envelope (PDE) and are available in Volume 1, Chapter 3: Project Description, of the Morven North and Morven South EIA Reports and outlined in Table 5.1.

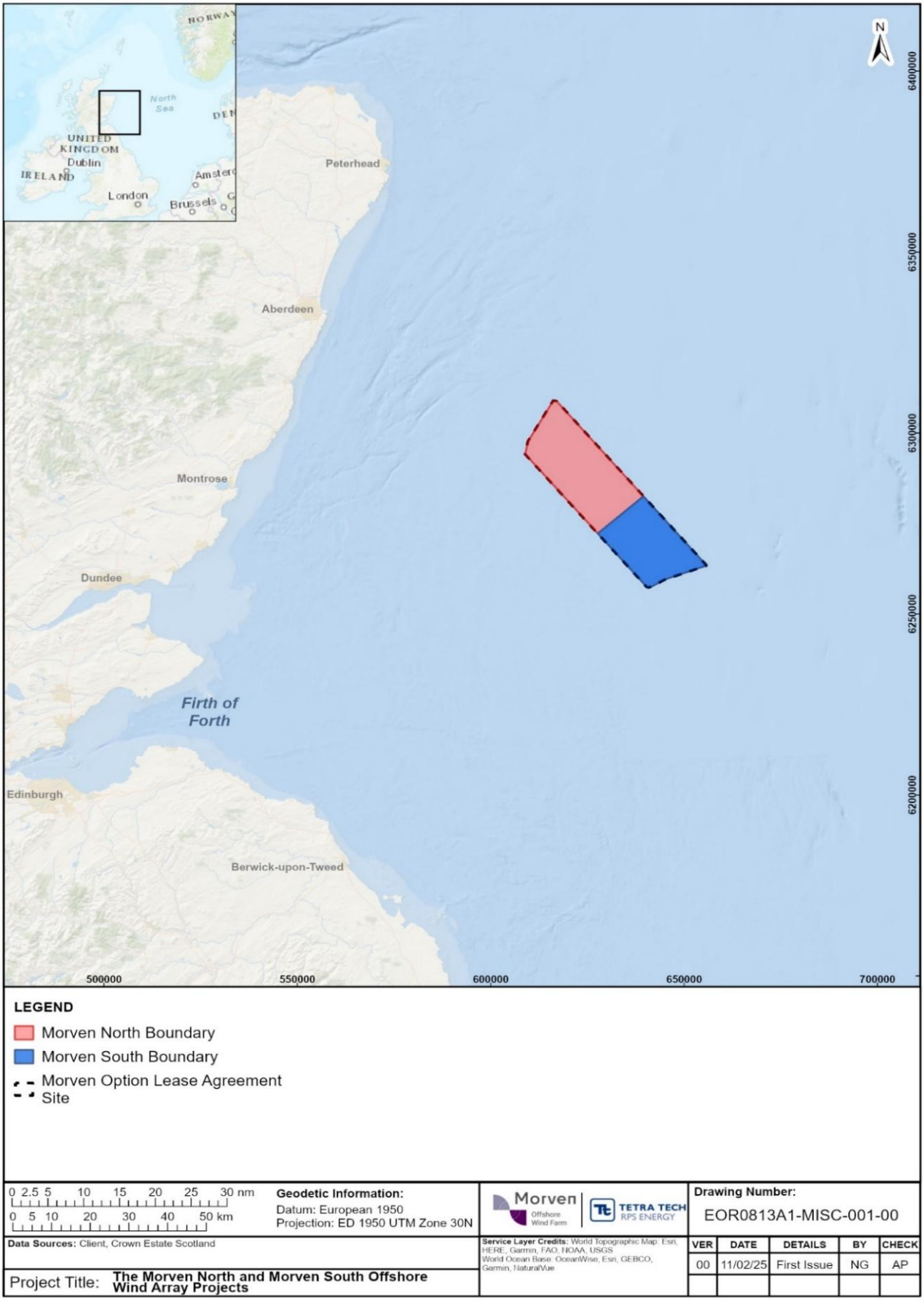

Figure 2.1: The boundaries of Morven North and Morven South within the Morven Option Lease Agreement Site

2.2 Additional management plans included within the application

2.2.1.1 The INNSMP and Biosecurity Plan (Version 1) has been drafted in conjunction with other relevant consent plans prepared for the Morven North and Morven South applications (see Table 2.1).

Table 2.1: Linkages with other consent plans prepared as part of the Morven North and Morven South applications

Consent Plan	Linkages with the INNSMP and Biosecurity Plan
EMP	The EMP will ensure appropriate environmental controls are in place for Morven North and Morven South and will set-out the agreed procedures regarding mitigation and potential risk to the receiving environment. The EMP provides the overarching framework for environmental management during the construction and O&M phases of Morven North and Morven South, including INNS and biosecurity management.
Marine Pollution and Contingency Plan (MPCP)	To minimise the potential for release of pollutants during construction, O&M and decommissioning phases of Morven North and Morven South, a MPCP has been developed. The MPCP includes planning for accidental spills and addresses potential contaminant releases. The MPCP also includes key emergency contact details and will be in line with appropriate regulations and guidelines. Any activities associated with the MPCP in the different phases of Morven North and Morven South, that may introduce INNS to the site- such as vessel movements, equipment cleaning, or material handling, is addressed in this INNSMP and Biosecurity Plan.
Scour Protection Management Plan (SPMP)	The SPMP sets out the approach to scour protection installation and monitoring at Morven North and Morven South. This will maximise protection of offshore infrastructure as far as possible during the lifecycle of both projects. Any O&M activities associated with the SPMP that may introduce INNS to the site, is addressed in this INNSMP and Biosecurity Plan.
Navigation Safety Plan and Vessel Management Safety Plan (NSPVMP)	A NSPVMP has been developed to reduce the risk introduced due to the presence of project vessels. It will confirm the types and numbers of vessels engaged in Morven North and Morven South and consider vessel coordination, including indicative transit route planning throughout all phases of Morven North and Morven South. Any activities associated with the NSPVMP in the different phases of Morven North and Morven South, that may introduce INNS to the site, will be discussed in this INNSMP and Biosecurity Plan.

3 Roles and responsibilities

3.1 Roles and responsibilities in relation to Invasive Non-Native Species and biosecurity management

3.1.1.1 Table 3.1 provides an overview of roles (including naming) and responsibilities, in relation to implementation and adherence to this INNSMP and Biosecurity Plan. The naming of these roles is indicative and will be confirmed post-consent/pre-construction.

Table 3.1: Roles and responsibilities relating to the Invasive Non-Native Species Management Plan and Biosecurity Plan

Role	Responsibility
The Applicant	Implementation of the INNSMP and Biosecurity Plan and ensuring the monitoring, clearance and disposal (or both) of INNS at Morven North and Morven South through its contractors and subcontractors.
Biosecurity Manager (or similar)	Responsible for implementing and ensuring compliance with the INNSMP and Biosecurity Plan.
Ecological Clerk of Works (ECoW)	Responsible for quality assurance of the INNSMP and Biosecurity Plan, monitoring contractor and subcontractor compliance throughout all phases of Morven North and Morven South and reporting any INNS-related incidents. Further detail of the responsibilities of the ECoW are outlined in Volume 4, Annex 1: Environmental Management Plan (Version 1).
Contractors and subcontractors	Responsible for implementing and ensuring compliance with the INNSMP and Biosecurity Plan and promptly notifying the biosecurity manager or relevant personnel of the presence of any INNS.

4 Invasive Non-Native Species management plan methodology

4.1 Creating the Invasive Non-Native Species Management Plan and Biosecurity Plan

4.1.1.1 The following sections describe the process of creating the INNSMP and Biosecurity Plan following best practice guidance (Payne *et al.,* 2014) and the approach listed in the Great Britain INNS Strategy, focusing on prevention and management.

4.1.1.2 The proposed approach is detailed below, assessing the different environmental characteristics of the Morven North and Morven South boundaries, to accurately assess the risk of INNS and biosecurity across the project phases.

The spectrum of control

4.1.1.3 Payne *et al.,* (2014), outlines the importance of the degree of control measures within an effective biosecurity plan. An important aspect to be considered when developing a INNSMP and Biosecurity Plan, is the degree of control the measures will have over the activities associated with the different phases of Morven North and Morven South. Table 4.1 provides an example adapted from Payne *et al.,* (2014) on the differing levels of control with an operation, relating to biosecurity.

Table 4.1: Examples from the spectrum of level of control within a Biosecurity Plan, as identified within Payne *et al.,* (2014)

Low level of control required	High level of control required
A small, busy harbour. One member of staff present partially throughout the day. 24 hour activity of a variety of vessels, all privately owned and arriving and departing without schedule.	Works to a private jetty for a quarry. Planned activity with main contractor and subcontractors all bound through contract terms to clear biosecurity measures and procedures. All vessels owned and operated by site owner/contractors. No other users of the facility.

4.1.1.4 Where direct control of activities is not possible (such as with private boat owners), the plan should include measures to influence and encourage best practice wherever feasible. Understanding the extent of control the plan has over different activities will help determine the appropriate balance between mandatory procedures and voluntary good practice.

4.1.1.5 Sections 4.1.2 to 4.1.7 outline the stepwise approach to developing an INNSMP and Biosecurity Plan, which will be employed and implemented by the Applicant (Section 5), as described in Payne *et al,* (2014).

4.1.2 Step 1 - Understanding the site

4.1.2.1 The following parameters of the Morven Site (encapsulating the Morven North and Morven South boundaries; Figure 2.1) should be taken into account when understanding the risk of INNS for Morven North or Morven South:

- Salinity of the Morven North and Morven South boundaries;
  - the majority of marine fauna and flora, cannot physiologically tolerate freshwater (water with a lower saline content) due to osmoregulatory effects, therefore the more saline or variable-salinity the environment, the more likely it is to be susceptible to the spread of INNS, which thrive in areas of higher salinity (Smyth and Elliott, 2016).

- How many 'man-made' structures are present within the Morven North/Morven South boundaries;
  - the presence of artificial "man-made" structures may increase the presence of INNS, which can colonise the artificial structures by settling on the substrate surface.
- Are INNS species already present within the Morven North/Morven South boundaries;
  - The INNSMP and Biosecurity Plan should focus on reducing the risk of INNS, but it should also consider how to prevent any Non-Native Species (NNS) that may already be present at the site i.e. within the Morven North/Morven South boundaries from spreading and becoming invasive (through the introduction of artificial substrates and other activities).
  - Any knowledge of existing INNS species present at the site may be weighed into the biosecurity plan and control measures.

4.1.2.2 Based on the above factors, a site can be categorised either as a "low" or "significant" risk site. Table 4.2 provides an example of this within a development.

Table 4.2: Examples of 'Low' and 'Significant' risk sites (Payne *et al.*, 2014)

Low Risk	Significant Risk
• Continual supply of freshwater into the site. • Having a breakwater or walls around the majority of the site. • Structures that have an anti-fouling coating, or removed from the water regularly and air dried, (every six to 12 months).	• The site is fully saline (no or minimal freshwater inflow). • Site has structures without anti-fouling coating, are submerged for longer than six months at a time, or both. • Structures present are fixed and can only be cleaned *in-situ*.

4.1.3 Step 2 - Understanding how Invasive Non-Native Species are introduced to your site

4.1.3.1 In addition to understanding site characteristics, existing structures, and any INNS already present, consideration must also be given to potential pathways for INNS introduction during the lifetimes of Morven North and Morven South.

4.1.3.2 This is an iterative process and the INNSMP and Biosecurity Plan should be refined throughout the different phases of Morven North and Morven South. The proposed review schedule is discussed in Section 5.5.2.

4.1.3.3 To determine which activities pose the greatest risk of introducing INNS, the questions in Table 4.3 should be considered.

Table 4.3: Example questions and their associated risk when developing an Invasive Non-Native Species Management Plan (Payne *et al.*, 2014)

Question	Risk		
	High	Medium	Low
Has the vessel/ equipment just arrived from the local area?			
Has the vessel/ equipment had an anti-fouling coating applied to submerged structures within the last 12 months (or time recommended by manufacturer)?			
Are all the visible submerged surfaces free of biofouling (a green 'slime' is ok)?			
Do the visible submerged surfaces have more than a green 'slime' coating?			
Does the vessel/equipment have noticeable clumps of algae and/or animals clinging to the visible parts of the hull/rudder/propeller?			
Has the vessel/ equipment just arrived from another country, region or water body with similar environmental conditions (e.g., seawater temperature)?			
Has the vessel/equipment just arrived from a water body known to have INNS present?			
Does the vessel/ equipment spend long periods of time stationary at sites in between anti-fouling treatments?			
Is the vessel "slow moving", such as a construction barge or drilling rig?			

4.1.3.4 As outlined in Table 4.3, the greatest risks of introducing INNS to a site, are through the following:

- vessel movements (particularly slower-moving vessels), and equipment or materials arriving at the site from other countries, regions, or bodies of water with similar environmental conditions (e.g. salinity and water temperature);
- where there is existing evident biofouling (categorised as anything more than a thin green 'slime' coating vessel hulls) or additional organisms such as algae or marine animals located on other materials brought to the site;
- the arrival of vessels or materials with biofouling present, from sites known to have INNS present.

4.1.3.5 For the purpose of this INNSMP and Biosecurity Plan, any activity associated with Morven North and Morven South that falls within the "Low" category (Table 4.3) is assessed as low risk.

4.1.3.6 Any activity assessed as posing more than a "Low" risk is classified as significant. On the risk scale ("Low, Moderate, High, Severe"), this would mean the site would be considered a Significant Risk Site (Payne *et al*. 2014).

4.1.4 Step 3 - Identifying and listing site activities that may introduce Invasive Non-Native Species

4.1.4.1 The next step in developing an INNSMP and Biosecurity Plan is identifying and understanding the main activities associated with a development or operation, in particular those that could lead to the introduction or release of marine INNS to the site, or wider marine environment.

4.1.4.2 Some activities will be identified as carrying little to no risk at all, such as those that do not have contact with seawater, and therefore do not need to be covered or assessed within the plan. However, this INNSMP and Biosecurity Plan will err on the side of caution, considering all activities that take place within the marine environment or seawater, and include both vessels and artificial structures.

4.1.4.3 Payne *et al.* (2014) provide examples of activities that pose a risk of introducing or releasing INNS through broad construction and maintenance activities. While these are not specific to offshore renewables developments, relevant examples include:

- use of construction barge and slow moving vessels;
- using vessels from locations outside local water body;
- importation of materials;
- removal of old structures/equipment;
- disposal/re-use of old structures/equipment;
- cleaning of hull and associated structures;
- disposal of damaged structures and biofouling removed during cleaning process.

4.1.4.4 The following two approaches are outlined in *Payne et al.,* (2014) as a process of identifying activities associated with the development that may pose a risk to introducing INNS.

- A “simple approach”.
- An “in-depth approach”.

The ‘simple approach’

4.1.4.5 This approach lists all activities which will occur at the site, or which may be undertaken as part of a development or operation that may be identified as carrying a significant risk of introducing or releasing INNS into the surrounding environment. This list is then taken to Step 4, biosecurity measures (Section 4.1.5).

The ‘in-depth approach’

4.1.4.6 This approach is adopted from the Hazard Analysis and Critical Control Point framework (2011; amended 2019) and is further discussed in Annex B of Payne *et al.,* (2014).

4.1.4.7 This approach is preferred by the Applicant and is recommended for large scale operations and developments. This approach evaluates the construction, O&M and decommissioning activities associated with Morven North and Morven South by breaking them down into their constituent tasks, providing a greater understanding of how the activities associated may pose a risk to the introduction, spread or both, of INNS.

4.1.4.8 This method allows the Applicant to develop biosecurity control measures that will be applied to the individual tasks to reduce the likelihood of introducing INNS, and to identify the specific circumstances during activities where these measures should be applied.

4.1.4.9 The ‘in-depth’ approach utilises the following steps (inherent within step three of developing a INNSMP and Biosecurity Plan):

- Step one – list activities.
- Step two – describe activities.
- Step three – split activities;

  - A brief description of the activity in the sequence they occur.

- Step four – establish Critical Control Points (CCPs) and control measures, considering the following for each task;
  - risk;
  - justification;
  - CCPs;
  - control measures;
  - who will carry out the control measures.
- Step five – develop an action plan;
  - take the CCPs and develop an action plan, considering the points outlined in step four, who will undertake these measures, and when.

4.1.5 Step 4 – Biosecurity control measures

4.1.5.1 At this stage of the plan, control measures can be identified and developed. It is important that these measures are simple, effective, realistic and can be easily translated into instructions or recommendations for staff and private vessels that may be out of the Applicant's control.

4.1.5.2 This stage of the plan must also consider the level of control the Applicant has over the site and the different activities associated with the phase of the project when implementing biosecurity control measures, to ensure they are applicable and easy to adhere to, as discussed in paragraph 4.1.1.3.

4.1.5.3 Control measures help the Applicant meet the legal requirements to take 'reasonable steps' to prevent the introduction of INNS.

4.1.5.4 To ensure effective control measures within an INNSMP and Biosecurity Plan, the plan should consider the following:

- who will conduct the action/measure;
- what will they be doing to reduce the risk of introducing INNS;
- where will the control measure be applied;
- when will the control measure be applied, at what stage in a process.

4.1.5.5 Examples of control measures are provided in Payne *et al*. (2014), many of which are incorporated into this INNSMP and Biosecurity Plan (see Section 5.3). Where feasible, biosecurity measures should be integrated during the design stage of new developments to 'design out' any significant risk of introducing or spreading INNS.

4.1.6 Step 5 – Biosecurity surveillance, monitoring and reporting procedures

4.1.6.1 Early detection of INNS on site is crucial, as it significantly improves the chances of successful containment and even full eradication. To support this, all staff and site users should be encouraged to report any unusual sightings directly to the biosecurity manager (or similar).

4.1.6.2 This step details the procedures to follow when an INNS is detected and confirmed on site. As part of this process, it is important to:

- identify who will be responsible for ongoing site surveillance and monitoring;
- include measures that encourage vessel owners using the site to stay alert and promptly report any sightings of concern.

4.1.7 Step 6 - Contingency planning

4.1.7.1 This section outlines the use of a contingency plan, which is to be implemented should the measures discussed in paragraph 1.2.1.9 fail to prevent INNS being introduced to the Morven North and Morven South boundaries. This document should be short, concise, and accessible to all relevant

staff associated with the different activities of Morven North and Morven South. It should also follow a step-by-step action list.

4.1.7.2 The contingency plan will be produced post-consent and will assess the activities identified in this INNSMP and Biosecurity Plan that could introduce or spread INNS. It will be developed separately to the INNSMP and Biosecurity Plan, once the specific activities discussed in Section 5 are known. The plan will be concise and will outline actions required to address any failure of the proposed control measures, following the guidance of Payne *et al.,* (2014) and the GB INNS Strategy (DEFRA, and the Scottish Government and Welsh Government, 2023). An example contingency plan is provided in Table 5.3.

4.2 Monitoring and review

4.2.1.1 Once the INNSMP is complete, a clear recording system (such as a logbook) should be implemented to accurately document the results of all checks and actions taken. Formal procedures should also be established to ensure the biosecurity manager (or similar) is promptly notified of any potential INNS introductions.

4.2.1.2 A review schedule for site and operational plans will be established to ensure the INNSMP is refined and updated as required.

5 Morven North and Morven South Invasive Non-Native Species Management Plan and Biosecurity Plan

5.1.1.1 The following section applies the methodology outlined in Section 4 (adopted from Payne *et al.,* (2014) to Morven North and Morven South's specific parameters, to assess the level of risk associated, identifying specific activities that may produce INNS and implementing specific CCPs.

5.1.2 Step 1 – Understanding the site

The Morven North and Morven South boundary characteristics

5.1.2.1 The Morven North and Morven South boundaries are located within the North Sea, approximately 61km and 86km from the coast at the nearest point, respectively and are out with any protected sites. The nearest protected area is the Firth of Forth Banks Complex Marine Protected Area (MPA), located 0.04km from the Morven North Boundary.

Bathymetry

5.1.2.2 Across the Morven North Boundary, water depths range from 64m to 75m, with depths across the Morven South Boundary ranging from 64m to 76m, relative to Lowest Astronomical Tide. With the shallowest depths within the centre of both the Morven North and Morven South boundaries.

Wave climate and hydrography

5.1.2.3 Annual mean significant wave height ranged from approximately 1.75m to 1.91m across the Morven North Boundary and 1.81m to 1.95m across the Morven South Boundary.

5.1.2.4 Site specific surveys undertaken by Partrac between October 2022 and November 2023 recorded maximum current speeds up to 1.0m/s within the Morven North Boundary, with mean current speeds of 0.26m/s. Near-surface current speeds were recorded up to a maximum 0.99m/s, with mean near-surface current speeds of 0.28m/s. Near-bed current speeds were recorded up to a maximum 0.63m/s, with mean near-bed current speeds of 0.22m/s, (Partrac, 2024).

5.1.2.5 Within the Morven South Boundary, maximum current speeds up to 0.88m/s were recorded, with mean current speeds of 0.24m/s. Near-surface current speeds were recorded up to a maximum 0.85m/s, with mean near-surface current speeds of 0.25m/s. Near-bed current speeds were recorded up to a maximum 0.61m/s, with mean near-bed current speeds of 0.21m/s.

5.1.2.6 Current directions at both sites aligned predominantly in a north northeast to south southwest orientation.

Salinity

5.1.2.7 As the Morven North and Morven South boundaries are located within offshore waters and there is no influx of freshwater to either site, salinity will be expected to be consistent with that of the surrounding greater North Sea area. The Partrac (2024) study showed levels of between 34 Practical Salinity Units (PSU) to 35PSU across both the Morven North and Morven South boundaries, across maximum depths of 70m. For further information on the salinity of both Morven North and Morven South, see Volume 3, Annex 7.1: Physical Processes Shared Technical Report.

Geology and seabed substrate

5.1.2.8 Side Scan Sonar and MultiBeam Echo Sounders were used to characterise the seabed in both the Morven North and Morven South boundaries. The predominant seabed sediment was fine to coarse sand, with gravel and shell material. The seabed sediments were relatively homogeneous within the Morven North Boundary and Morven South Boundary.

5.1.2.9 Numerous cobbles and boulders were present across both boundaries, with the most common in the northwest and eastern areas of the Morven Site. Within the Morven North Boundary, the boulder density was the highest in the northwest and southeastern corners, and within the Morven South Boundary there was increased boulder density in the northeast corner and central regions, although there is notably less boulder presence within the Morven South Boundary than within the Morven North Boundary.

Sediment transport and current speeds

5.1.2.10 Lower current speeds coupled with sediment transport can influence the persistence and spread of INNS after introduction to a site, as sediments can retain viable propagules or environmental DNA that may be resuspended and transported over long distances under certain hydrological conditions (Nevers *et al*., 2020).

5.1.2.11 Modelling undertaken for Morven North and Morven South is discussed in Volume 3, Annex 7.1: Physical Processes Shared Technical Report. The modelling explored two scenarios of sediment transport within the Morven North and Morven South boundaries. One scenario modelled calm conditions and a second relating to the 1 in 1 year return period event from 000 (baseline). The following aspects were considered within two scenarios modelled:

- Residual current, which is the net flow over the course of the tidal cycle. This is effectively the driving force of the sediment transport.
- Potential sediment transport over this period.
- Rate of change of the bed during flood and ebb tides. This provides information for a "snapshot" in time to enable the process to be illustrated.

5.1.2.12 The Morven North and Morven South boundaries are characterised by low residual current speeds, with up to 0.008m/s within the Morven North Boundary and 0.007m/s within the Morven South Boundary, generally flowing in a northwesterly direction.

5.1.2.13 The values within the Morven North Boundary and Morven South Boundary are several orders of magnitude smaller than those within the Firth of Forth and towards the coastline. Potential sediment transport over the course of one day or two tidal cycles reached up to a maximum of 0.09m^3/d/m within the Morven North Boundary under calm conditions. Similarly, rates of up to 0.01m^3/d/m were determined within the Morven South Boundary.

5.1.2.14 Residual current speeds of up to 0.07m/s are seen within flood tide currents within both the Morven North Boundary and the Morven South Boundary, flowing south southwest.

5.1.2.15 As the Morven North and Morven South boundaries experience both relatively slow moving currents (up to 0.07m/s in storm conditions), and sediment transport, there is potential for an increased biosecurity risk due to INNS having an increased potential for colonising artificial substrates.

Presence of artificial structures

5.1.2.16 There are no artificial structures present within the Morven North and Morven South boundaries, however, the presence of neighbouring Offshore Wind Farms (OWFs) currently in O&M phase, or under construction, may increase the risk of INNS being introduced to Morven North and Morven South boundaries. This section is explanatory only and will be updated post-application to reflect any changes to artificial structures present, within and around the Morven North and Morven South boundaries, and should consent for Morven North and Morven South be granted.

Invasive Non-Native Species at Morven North and Morven South

5.1.2.17 There are a number of benthic INNS widespread throughout Scottish waters and the wider North Sea, including:

- wireweed (*Sargassum muticum*);

- green sea-fingers (*Codium fragile*) subspecies (*fragile)*;
- red alga (*Dasysiphonia japonica*);
- acorn barnacles (*Austrominius modestus*);
- japanese skeleton shrimp (*Caprella mutica*);
- leathery sea squirt (*Styela clava*);
- orange tipped sea squirt (*Corella eumyota*);
- orange ripple bryozoan (*Schizoporella japonica*) (NatureScot, 2023).

5.1.2.18 However, no INNS were recorded during the site specific surveys for Morven North or Morven South (see Volume 3, Annex 8.1: Benthic Subtidal Ecology Shared Technical Report, of the Morven North and Morven South EIA Reports).

5.1.2.19 The most recent post-construction monitoring at Beatrice Offshore Wind Farm (BOWL, 2022) found no evidence of INNS on wind turbine foundations, despite installation vessels arriving from international ports. This indicates that introducing offshore wind structures does not necessarily lead to INNS spread in Scottish waters.

5.1.3 Step 2 – Understanding how Invasive Non-Native Species can be introduced or spread to the Morven North and Morven South boundaries

Vessels and structures associated with Morven North and Morven South

5.1.3.1 Table 5.1 provides examples of vessels and structures expected to be installed or used at Morven North and Morven South, along with a risk indicator for the potential introduction of INNS to Morven North and Morven South and surrounding areas. This risk indicator will be refined based on professional judgement once final parameters of Morven North and Morven South and any confirmed INNS presence in the area are known (paragraph 5.1.2.18).

Summary of the risk associated with the construction, operations and maintenance and decommissioning activities of Morven North and Morven South

5.1.3.2 The vessels proposed to be associated with the different phases of Morven North and Morven South are considered to present a “Low Risk” of introducing INNS to the surrounding marine environment. Although the vessels are expected to be slow moving, which is considered “High Risk”, the steps taken prior to use on site (as outlined in this paragraph and paragraphs 5.1.3.3 to 5.1.3.5) are considered to offset this risk.

5.1.3.3 Vessels shall be subject to a risk-based biofouling inspection and management regime. This may include review of antifouling and maintenance records, visual inspection, and where appropriate routine or targeted in-water inspections (in-line with IMO biofouling guidance (2023); see paragraph 5.3.3.3), with contingency plans in place should there be detection of INNS. Furthermore, the application of anti-fouling paint, paired with a lack of INNS recorded within the Morven North and Morven South boundaries (Volume 3, Annex 8.1: Benthic Subtidal Ecology Shared Technical Report) and vessels originating from areas with similar environmental conditions, means that the vessel activities are considered “Low Risk” to the introduction and spread of INNS.

5.1.3.4 The need for anti-fouling coatings on artificial structures such as wind turbine and OSP foundations will be determined through detailed design and material selection, taking account of structural performance, biosecurity risk, environmental effects and relevant consent requirements, and as discussed in paragraph 5.3.2.2, will ideally originate from a terrestrial environment. These will also be fully dried prior to installation, to minimise the introduction of INNS to the surrounding marine environment.

5.1.3.5 Furthermore, as discussed in Section 5.2, routine O&M activities may include cleaning of the foundation structures, involving the removal of marine growth and build up, which further minimises the risk of these structures introducing INNS to the surrounding marine environment and

compromising biosecurity. The process for the disposal of INNS and marine growth is outlined in paragraph 5.3.5.1.

Table 5.1: Example vessels and equipment associated with the construction and operations and maintenance and decommissioning phases of Morven North and Morven South

C= Construction, O= Operations and Maintenance, D= Decommissioning phases

"✓" is used to denote the phase the equipment is associated with, "✗" outlines there is no overlap with this project phase

Example equipment or vessel	Phase			Type	Details and risk factors		Associated risk ('Low' or 'Significant')
	C	O	D		Morven North	Morven South	
Vessels	✓	✗	✓	Various	• Vessels associated with construction and decommissioning phases of Morven North will be finalised prior to construction. However, anticipated vessels will include, but are not limited to: – Crew Transfer Vessels (CTVs); – scour protection installation vessels; – cable protection installation vessels; – main installation and support vessels; – tug/anchor handlers; – cable lay installation & support vessels; – guard vessels; – survey vessels; – seabed preparation vessels for boulder removal, grapnel, pre-sweep/levelling. • The location and port in which the vessels will originate, as well as their size will be confirmed prior to construction and decommissioning. • Vessels will be required to have an anti-fouling coating and inspection history. • Vessels are expected to move slowly when installing or removing structures. • Up to 41 vessels associated with construction may be operating on site at any one time, for Morven North and Morven South, individually.		Low
Vessels	✗	✓	✗	Various	• vessel types and sizes will be confirmed before the operation and maintenance phase, but are expected to include:		Low

Example equipment or vessel	Phase			Type	Details and risk factors		Associated risk ('Low' or 'Significant')
	C	O	D		Morven North	Morven South	
					– CTV/workboats; – jack-up vessels; – cable repair vessels; – other vessels; – excavators or backhoe dredger. • The location and port in which the vessels will originate, as well as their size will be confirmed prior to O&M. • Vessels will be required to have an anti-fouling coating and inspection history. • Vessels are expected to move slowly when carrying out maintenance works. • Up to 17 vessels associated with O&M may be operating on site at any one time, for Morven North and Morven South, individually.		
Wind turbine and OSP foundations	✗	✓	✗	Fixed bottom wind turbines and OSP foundations	• Up to 96 wind turbines and associated fixed bottom turbines will be implemented. • Up to five OSPs[1] present at Morven North; – up to four High Voltage Alternating Current (HVAC) OSPs and one High Voltage Direct Current (HVDC) Bridge-linked OSP (up to six foundational structures in total);	• Up to 95 wind turbines and associated fixed bottom turbines will be implemented. • Up to five OSPs present at Morven South; – up to four HVAC OSPs and one HVDC Bridge-linked OSP (up to six foundational structures in total); – up to six legs per OSP foundation.	Low

[1] There is the possibility of a bridge-linked HVDC OSP being included within the design parameters for Morven North and Morven South. This structure is effectively two HVDC OSPs linked via a bridge, however treated as a single structure for the purpose of EIA, with two separate foundations associated with it. Note, in the case where a bridge-linked HVDC OSP is included in Morven North, there will be no HVDC OSP required in Morven South and vice versa.

Example equipment or vessel	Phase			Type	Details and risk factors		Associated risk ('Low' or 'Significant')
	C	O	D		Morven North	Morven South	
					– up to six legs per OSP foundation.		

5.1.3.6 Table 5.1 will be reviewed in detail once the exact vessel parameters and sources are confirmed following the appointment of a vessel contractor during the pre-construction phase of Morven North and Morven South.

5.1.3.7 The Morven North and Morven South EIA Reports use a Maximum Design Scenario (MDS) approach, based on currently known information, incorporating multiple vessel and foundation options for wind turbines and OSPs (Table 5.1). As this INNSMP and Biosecurity Plan is to be treated as a live document, it will be updated once specific details of wind turbines, OSPs, vessels, and associated equipment are confirmed, with risk categories assigned to each infrastructure type in line with the methodology outlined in Section 4.

5.2 Step 3 – Identifying and listing site activities that may introduce Invasive Non-Native Species

5.2.1.1 Activities associated with Morven North and Morven South that may pose a significant risk of introducing INNS, facilitating their spread or both, are listed in Table 5.2.

Table 5.2: Activities associated with Morven North, Morven South or both which may risk introducing or spreading Invasive Non-Native Species, in the order they occur

Activity (and phase)	Description of activity
Installation of artificial structures (Construction)	• The installation works associated with the Morven North and Morven South infrastructure, including; – installation of wind turbines, including fixed bottom foundations; – installation of OSPs, including OSP foundations; – installation of inter-array and interconnector cables. • Vessel movements associated with the installation of Morven North and Morven South infrastructure.
O&M activities	• Vessel movements as a result of routine offshore activities associated with Morven North and Morven South. Activities may include, but are not limited to: – routine inspections; – geophysical surveys; – repairs and replacements (including wind turbines, navigational equipment, j-tubes, and consumables); – cleaning and painting activities; – removal of marine growth build up; – minor repairs.
Decommissioning	• Decommissioning and removal of: – wind turbines and associated fixed foundations; – OSPs and associated fixed foundations; – potential removal of inter-array and interconnector cables.

5.3 Step 4 – Establishing Critical Control Points and biosecurity measures

5.3.1.1 The following sections outline the site specific risks of activities associated with all phases of Morven North and Morven South.

5.3.2 Installation of artificial structures

Risk

5.3.2.1 The installation of artificial structures such as wind turbines (Table 5.2), has been identified as one of the largest risks of INNS introduction and spread, for both Morven North and Morven South. Artificial structures being introduced to Morven North and Morven South, may function as substrate for the settlement and colonisation of INNS, where they may not have settled prior to installation (Langhamer, 2012).

Biosecurity control measures

5.3.2.2 Artificial structures forming the infrastructure of Morven North and Morven South will ideally originate from terrestrial environments and not from marine settings, to avoid prior submersion that could lead to biofouling before installation.

5.3.2.3 If a structure must originate from another marine environment, the aim will be for this infrastructure to be fully dried to eliminate any attached marine organisms and inspected before placement. This process will occur within a port or on transit vessels.

5.3.2.4 It is also expected that artificial structures will be painted with anti-fouling paint, where applicable, and marine growth build up will be removed as outlined in Section 5.3.4.

5.3.3 Vessel use during all phases of Morven North and Morven South

Risk

5.3.3.1 Vessels originating from outside the east coast of Scotland and northeast coast of England have the potential to pose a 'Significant risk' (paragraph 4.1.3.6) of introducing INNS to the surrounding marine environment (paragraph 4.1.3.6), particularly vessels originating from marine environments with similar temperatures and salinity levels.

5.3.3.2 Upon finalisation of the preferred vessel contractor for Morven North and Morven South, this section will be updated to reflect the origins of vessels to be used.

Biosecurity control measures

5.3.3.3 Vessels operating at Morven North and Morven South across their different lifetime phases, will comply with the International Maritime Organization (IMO) guidelines, and where relevant, comply with IMO (2021; 2023 and 2024), which outlines the following requirements:

- ballast water exchange to be carried out at least 200nm from the nearest point of land and in-water at least 200m in-depth;
- use of anti-fouling systems, which includes the use of coating systems, biofouling resistant materials and marine growth prevention systems;
- in-water inspection of ships and in-water cleaning and maintenance.

5.3.3.4 These biosecurity control measures will be ensured by the Applicant, through a requirement for all vessel contractors to adhere to this INNSMP and Biosecurity Plan.

5.3.4 Routine cleaning and disposal of biofouling from structures during operation and maintenance and decommissioning activities

Risk

5.3.4.1 There is potential for INNS to be dislodged from subsea structures during routine offshore O&M activities. This may result in the spread of INNS, such as the removal of marine growth build up on artificial structures. Biosecurity control measures may be necessary to reduce the extent of biofouling material entering the surrounding marine environment at Morven North and Morven South.

5.3.4.2 It is possible that further O&M activities associated with Morven North and Morven South that are not yet identified, may result in the spread of INNS. In this circumstance, further biosecurity control measures will be outlined in this section, post-application.

5.3.4.3 During the decommissioning phase of Morven North and Morven South, there is potential for existing INNS attached to the artificial structures to spread into the surrounding marine environment, where not initially present.

Biosecurity control measures

5.3.4.4 Where O&M activities pose a risk of spreading INNS, measures will be implemented to prevent biofouling material from entering the marine environment. This includes collecting and disposing of biofouling waste in accordance with the relevant port authority waste management plan and local regulations, ensuring treatment, disposal or both, is conducted in a safe and environmentally sound manner (IMO, 2023).

5.3.4.5 During the decommissioning phase, any marine growth that becomes detached from submerged artificial structures associated with Morven North and Morven South during their removal, will be contained and disposed of appropriately, onshore. This approach prevents biofouling residues from re-entering the marine environment and aligns with Payne *et al.* (2014) and IMO guidance (2023), which recommends that all removed material be collected and managed through approved onshore waste-handling systems to avoid the spread of INNS.

5.3.4.6 During the O&M phase, routine activities that involve the cleaning, removal or refurbishment of infrastructure components, including the removal of marine growth or biofouling build-up (as discussed in Table 5.2), will follow the relevant port authority's waste-management plan to ensure residues are treated or disposed of in an environmentally sound manner, consistent with wider biosecurity control measures outlined in Section 5.3.

5.3.4.7 Prior to mobilisation to Morven North and Morven South, all equipment, materials, machinery and personal protection equipment shall be inspected and, where necessary, cleaned to ensure they are free from visible biological contamination. Vessels shall be subject to appropriate biofouling inspection and management measures to confirm they do not present an unacceptable risk on transferring INNS. Contractors are responsible for ensuring compliance with these requirements set out by the Applicant by following the INNSMP and Biosecurity Plan prior to mobilisation.

5.3.5 Disposal procedures of Invasive Non-Native Species and other marine build-up

5.3.5.1 All invasive non-native species material, biofouling residues and other marine growth removed from vessels, equipment or infrastructure will not be released back into marine environment. It shall be collected, securely contained and disposed of onshore in accordance with applicable legal requirements, best practise, waste management procedures and relevant port authority requirements consistent with best-practice biosecurity controls outlined by Payne et al. (2014). The handling, containment, and disposal of biofouling residues will form part of the project's biosecurity control measures and will be further detailed within the post-consent contingency plan (Section 5.4.2) .

5.4 Step 5 – Biosecurity surveillance, monitoring and reporting procedures

5.4.1.1 This section outlines responsibilities for specific INNS checks, as well as the locations and timing of these checks, which will be conducted by the designated biosecurity manager (or similar)., Project-specific details relating to INNS and biosecurity surveillance, monitoring and reporting procedures will be updated prior to commencement of construction. Furthermore, detail on these procedures shall be added once more is known around the activities associated with the construction phase of Morven North and Morven South.

5.4.2 Contingency plan

5.4.2.1 As discussed in Section 4.1.7, the contingency plan will be produced post-consent and will be developed separately to the INNSMP and Biosecurity Plan, once the specific activities discussed in Section 5 are known.

5.4.2.2 The list of example actions and processes of the contingency plan should INNS be detected, is outlined in Table 5.3.

Table 5.3: An example of a biosecurity contingency plan adapted from Payne *et al.*(2014)

Action	Responsibility
Stage one – Suspected arrival of high alert species	
Collect and photograph sample, place in plastic bag and contact Scottish Environment and Rural Services for advice on where to send sample.	To include one or more of the following: Harbour Master, marina berthing manager, biosecurity manager (or similar) and ECoW.
Check the sampled organism against the identification sheet (provided in nonnativespecies.org) and report the recording.	
Inform harbour users and place marker buoys around area.	Harbour master/staff.
Stage two – Presence of high alert species confirmed	
Initiate immediate containment measures, including restricted vessel movements.	Marina berthing manager.
Carry out wider survey of vessels and structures using underwater camera.	Harbour staff, biosecurity manager (or similar) and Marine Directorate inspectors.
Stage three – Eradication/long term control measures in place	
Consult the relevant body, such as INNS Scotland or the Great Britain NNS Secretariat, to determine the best measures to be implemented for long- term biosecurity.	Biosecurity office manager, environmental manager and contractor environmental manager.

5.5 Monitoring and review

5.5.1 Monitoring the implementation of the Invasive Non-Native Species Management Plan and Biosecurity Plan

5.5.1.1 Once the INNSMP and Biosecurity Plan has been implemented, it is crucial that a clear logging system (Section 4.2), is put in place for the results of any checks or actions taken and formal processes are put in place to ensure the biosecurity manager is made aware of any potential introduction of INNS.

5.5.1.2 Examples of what should be included in the logbook are routine inspections, application of anti-fouling or cleaning to vessels and inspections of high “risk” vessels.

5.5.1.3 All entries should be given a date and signed by the biosecurity manager (or similar).

5.5.2 Plan review

5.5.2.1 This INNSMP and Biosecurity Plan will be reviewed and updated on a regular basis to ensure it does not become outdated. The Applicant proposes the INNSP and Biosecurity Plan be reviewed regularly during construction phase and updated as necessary to reflect changes in activities, vessels, equipment, methodologies, site conditions or identified biosecurity risks. As a minimum, the plan shall be reviewed annually during construction or more frequently as agreed with MD-LOT.

5.5.2.2 Following the completion of the construction phase, the INNSMP and Biosecurity Plan will be updated prior to the individual Morven North and Morven South O&M phases, as to remain applicable to the activities associated with O&M. The plan shall be reviewed at intervals not exceeding five years over the anticipated 35 year operation lives of Morven Noth and Morven South, and earlier where there is a material change to operations or a biosecurity incident/new identified risk.

5.5.2.3 The INNSMP and Biosecurity Plan will be updated again prior to the decommissioning phase, to ensure proposed measures are still relevant and that any potential presence of INNS is reassessed.

6 Further sources of information

6.1.1.1 The following list provides further sources of useful information to inform this INNSMP and Biosecurity Plan:

- MO Guidelines for the control and management of ships biofouling to minimize the transfer of invasive aquatic species (IMO, 2023);
- Law on non-native species (Scottish Invasive Species Initiative, 2024);
- Marine Biosecurity Planning – Identification of Best Practice: A Review (NatureScot, 2014);
- Scotland's Environment: Invasive non-native species (Scottish Environment Protection Agency, 2019).

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