

<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:	National Grid Electricity Transmission
<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>National Grid Electricity Transmission (NGET) is planning to conduct geophysical, geotechnical, and environmental habitat survey works in connection with Western Link 2 (hereafter referred to as WL2, or the project) which is a planned high voltage direct current (HVDC) electricity transmission reinforcement link between the west coast of Scotland to north Wales. The total proposed survey area across Welsh, Manx, Northern Irish and Scottish covers approximately 665 km². The survey area within Wales will be 250.17 km² within Welsh inshore (0 – 12 nm) and offshore waters (12 nm – Exclusive Economic Zone (EEZ) boundary).</p> <p>The proposed geotechnical survey will include vibrocores, Cone penetration testing (CPT), and boreholes. One vibrocore sample will be collected every 1 km (no replicates) in water depths greater than 4 m. The total sample volume per vibrocore sample is anticipated to be up to 0.05 m³.</p> <p>The benthic sampling surveys will involve Drop-Down Video (DDV) and seabed grab samples, using either a day grab sampler or Harmon grab sampler for coarser material. It is anticipated that grab sampling will consist of two grab drops per sample location, increasing to three drops in sensitive areas. Within shallow water depths (< 8 m), the sampling frequency will be every 2 and 5 km. Within deeper water depths (> 6 m), the sampling frequency will be every 5 and 10 km.</p> <p>Please see further the 'NRW Geotechnical Survey Technical Note' for additional detail.</p> <p>The geotechnical, and environmental habitat survey works are being undertaken by two separate contractors, for ease two INNS Risk Assessment and Management Plans have been prepared per contractor. Causeway will</p>

	<p>be performing geotechnical survey to support landfall engineering studies using deeper sampling and testing techniques. The locations will be performed from a jack-up barge from the shoreline up to approximately 1.5 km from each landfall.</p>
<p>Estimated timings of proposed licensed activities:</p>	<p>The proposed period for the survey is between 1st March and 1st September 2026 with an expected duration of 90 days for the total route corridor, including local mobilisation, transit, survey and local demobilisation. Of these 90 days, works within Welsh waters are anticipated to be significantly shorter (approximately 14 days).</p> <p>Survey activities may happen beyond this proposed period as contingency in the case of unexpected delays, such as weather, preventing survey activity from occurring as planned.</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
Ocean Battler	Dieppe, France 26/02/25 – 12/10/25 229 days	Didemnum vexillum Styela clava Asterocarpa humilis Crepidula fornicata Crassostrea gigas Hemigrapsus takanoi Caprella mutica Sargassum muticum Undaria pinnatifida Grateloupia turuturu Codium fragile subsp. fragile	Yes, anti-fouling certificate from April 2026.

		Asparagopsis armata	
	Newlyn, England 13/10/25 – 15/10/25 3 days	Rubramoena Sp. "Newlyn Fenwick A" Colpomenia peregrina Magallana gigas Sargassum muticum Austrominius modestus Asparagopsis armata Melanothamnus harveyi Grateloupia turuturu Bugula neritina Antithamnionella ternifolia Crepidula fornicate Undaria pinnatifida Crepidula fornicate Perophora japonica Pikea californica Asterocarpa humilis Watersipora subatra Corella eumyota Ciona robusta Styela clava Bugulina simplex Bonnemaisonia hamifera Bugula neritina Tricellaria inopinata	
	Clew Bay, Ireland 16/10/25 – 21/10/25 5 days	Colpomenia peregrina Dasysiphonia japonica Sargassum muticum Agarophyton vermiculophyllum	
	Castletownbere, Ireland	Colpomenia peregrina Sargassum muticum	

	21/10/25 – 09/02/26 111 days		
	Bangor Marina, Northern Ireland 09/02/26 – 12/02/26 3 days	Watersipora subatra Caprella mutica Botrylloides violaceus Schizoporella japonica Bispira polyoma Perophora japonica Bugula neritina Styela clava Tricellaria inopinata Asterocarpa humilis Botrylloides violaceus Undaria pinnatifida Corella eumyota Bugulina simplex Austrominius modestus Sargassum muticum	
	Kishorn Port 12/02/26 – 19/02/26 7 days	Bonnemaisonia hamifera Caprella mutica Dasysiphonia japonica Colpomenia peregrina Magallana gigas Mya arenaria Styela clava Antithamnionella spirographidis Sargassum muticum	
	Stornoway Port 19/02/26 – 19/04/26 59 days	Bonnemaisonia hamifera Austrominius modestus Caprella mutica Colpomenia peregrina Molgula manhattensis	
	Lochboisdale Harbour 19/04/26 – present 4 days to present	Bonnemaisonia hamifera Asparagopsis armata Dasysiphonia japonica Sargassum muticum Colpomenia peregrina Antithamnionella ternifolia Codium fragile subsp. Fragile Marenzelleria wireni	

		<p>Caprella mutica Grateloupia turuturu Magallana gigas</p>	
Causeway Giant 1	<p>Peterhead Port, Scotland</p> <p>05/05/25 – 14/05/25</p> <p>10 days</p>	<p>Biddulphia sinensis Mya arenaria</p>	<p>The vessel is road transportable. Removed from the water in sections between projects and all sections are power washed/cleaned before and after every project.</p> <p>No anti-fouling; the vessel is jacked up 95% of a project so ponotoons are clear of water</p>
	<p>Dumbarton, Scotland (yard stay)</p> <p>15/05/25 – 07/09/25</p> <p>115 days</p>	N/A	
	<p>Montrose Harbour, Scotland</p> <p>08/09/25 – 22/09/25</p> <p>15 days</p>	Mya arenaria	
	<p>Dumbarton, Scotland (yard stay)</p> <p>23/09/25 – 18/01/26</p> <p>117 days</p>	N/A	
	<p>Red Funnel Ferry Terminal, Southampton</p> <p>19/01/26 – 06/02/26</p> <p>18 days</p>	<p>Crepidula fornicate Austrominius modestus Hydroides ezoensis Monocorophium sextonae Petricolaria pholadiformis Styela clava Ruditapes philippinarum Mercenaria mercenaria Arcuatula senhousia Grandidierella japonica Bugula neritina Undaria pinnatifida Mya arenaria Tricellaria inopinata Monocorophium acherusicum Ficopomatus enigmaticus</p>	

		<p> <i>Corella eumyota</i> <i>Hydroides elegans</i> <i>Sargassum muticum</i> <i>Magallana gigas</i> <i>Grateloupia turuturu</i> <i>Ammothea hilgendorfi</i> <i>Botrylloides violaceus</i> <i>Bugulina simplex</i> <i>Caprella mutica</i> <i>Colpomenia peregrina</i> <i>Desdemona ornata</i> <i>Eusarsiella zostericola</i> <i>Amphibalanus improvises</i> <i>Amphibalanus</i> <i>Amphitrite</i> <i>Melanothamnus harveyi</i> <i>Mytilicola intestinalis</i> <i>Bugulina stolonifera</i> <i>Codium fragile</i> subsp. <i>Fragile</i> <i>Diadumene lineata</i> <i>Didemnum vexillum</i> <i>Eriocheir sinensis</i> <i>Watersipora subatra</i> </p>	
	<p> Southampton Port, River Test 06/02/26 – 08/04/26 61 days </p>	<p> <i>Crepidula fornicate</i> <i>Austrominius modestus</i> <i>Hydroides ezoensis</i> <i>Monocorophium sextonae</i> <i>Petricolaria pholadiformis</i> <i>Styela clava</i> <i>Ruditapes philippinarum</i> <i>Mercenaria mercenaria</i> <i>Arcuatula senhousia</i> <i>Grandidierella japonica</i> <i>Bugula neritina</i> <i>Undaria pinnatifida</i> <i>Mya arenaria</i> <i>Tricellaria inopinata</i> <i>Monocorophium acherusicum</i> <i>Ficopomatus enigmaticus</i> <i>Corella eumyota</i> <i>Hydroides elegans</i> </p>	

		<p>Sargassum muticum Magallana gigas Grateloupia turuturu Ammonothea hilgendorfi Botrylloides violaceus Bugulina simplex Caprella mutica Colpomenia peregrina Desdemona ornata Eusarsiella zostericola Amphibalanus improvises Amphibalanus Amphitrite Melanothamnus harveyi Mytilicola intestinalis Bugulina stolonifera Codium fragile subsp. Fragile Diadumene lineata Didemnum vexillum Eriocheir sinensis Watersipora subatra</p>	
	<p>Transit on lorries 08/04/26 – 13/04/26 6 days</p>	N/A	
	<p>Dublin Port, Ireland 13/04/26 – present 10 days to present</p>	<p>Sargassum muticum Mya arenaria Styela clava</p>	
SBS Guardian	<p>Castletownbere, Ireland (Out of water) 01/01/25 – 09/02/26 405 days</p>	N/A	<p>N/A The vessel is road transportable. Removed from the water between projects and power washed/cleaned before and after every project.</p>
	<p>Bangor Marina, Northern Ireland 09/02/26 – 12/02/26 3 days</p>	<p>Watersipora subatra Caprella mutica Botrylloides violaceus Schizoporella japonica Bispira polyoma Perophora japonica Bugula neritina Styela clava Tricellaria inopinata Asterocarpa humilis Botrylloides violaceus</p>	

		Undaria pinnatifida Corella eumyota Bugulina simplex Austrominius modestus Sargassum muticum	No anti-fouling; vessel is removed from water between projects and transported by road.
	Kishorn Port 12/02/26 – 19/02/26 7 days	Bonnemaisonia hamifera Caprella mutica Dasysiphonia japonica Colpomenia peregrina Magallana gigas Mya arenaria Styela clava Antithamnionella spirographidis Sargassum muticum	
	Stornoway Port 19/02/26 – 19/04/26 59 days	Bonnemaisonia hamifera Austrominius modestus Caprella mutica Colpomenia peregrina Molgula manhattensis	
	Lochboisdale Harbour 19/04/26 – present 4 days to present	Bonnemaisonia hamifera Asparagopsis armata Dasysiphonia japonica Sargassum muticum Colpomenia peregrina Antithamnionella ternifolia Codium fragile subsp. Fragile Marenzelleria wireni Caprella mutica Grateloupia turuturu Magallana gigas	

Please add more rows if necessary

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
Ocean Battler / Tug Vessel	Medium	<p>The biosecurity risk associated with the operations of the Ocean Battler / Tug Vessel has been assessed as High, based a precautionary approach with regard to the vessel's operational profile, geographical exposure, and implemented mitigation measures.</p> <p>Several key control measures are in place which significantly reduce the overall risk (e.g. adhering to international guidance such as the IMO's Biofouling Guidelines), alongside anti-fouling coating applied April 2026.</p>
Causeway Giant 1 / Jack-up Barge	Low	<p>The biosecurity risk associated with the operations of the Causeway Giant 1 / Jack-up Barge has been assessed as low with regard to the vessel's operational profile, geographical exposure, and implemented mitigation measures.</p> <p>The vessel is road transportable. Removed from the water in sections between projects and all sections are power washed/cleaned before and after every project.</p> <p>No anti-fouling; the vessel is jacked up 95% of a project so pontoons are clear of water.</p>
SBS Guardian / Crew Transfer Vessel	Low	<p>The biosecurity risk associated with the operations of the SBS Guardian / Crew Transfer Vessel has been assessed as low with regard to the vessel's operational profile, geographical exposure, and implemented mitigation measures.</p> <p>The vessel is road transportable. Removed from the water between projects and power washed/cleaned before and after every project.</p> <p>No anti-fouling; vessel is removed from water between projects and transported by road.</p>

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.

Vessel	Alternative biofouling management regime (e.g. different timeframes for antifouling treatment, vessel storage on land etc.)	Risk Level (High, Medium, low)
Causeway Giant 1	<p>The vessel is road transportable. Removed from the water in sections between projects and all sections are power washed/cleaned before and after every project.</p> <p>No anti-fouling; the vessel is jacked up 95% of a project so ponotoons are clear of water.</p>	Low
SBS Guardian	<p>The vessel is road transportable. Removed from the water between projects and power washed/cleaned before and after every project.</p> <p>No anti-fouling; vessel is removed from water between projects and transported by road.</p>	Low

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
N/A	Source					
	Receiving					
	Source					
	Receiving					
	Source					
	Receiving					

Please add more rows if necessary

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

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
N/A	Source					
	Receiving					
	Source					
	Receiving					

Please add more rows if necessary

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

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
N/A			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.

<p>Benthic sampling: Drop Down Video; Grab sampler (either a day grab sampler or Harmon grab sampler).</p> <p>Geotechnical: vibrocorer, CPT system, and borehole drilling rig</p>

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	X	

activity area on completion of the licensed activity.		
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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)
X	

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
N/A			

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
N/A		

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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)
Vessel	Medium	The vessel details (including antifouling regime and previous areas of work) will be risk assessed. It is expected due to the nature of the projects the contracted survey vessels undertake that the risk will be low due to standards that the vessels are required to meet on any survey project (e.g. adhering to international guidance such as the IMO's Biofouling Guidelines).	Low
Immersible equipment	Medium	The equipment will be rinsed with seawater before the survey starts, between each sampling area to prevent contamination of equipment/samples between sites and stop the spread of INNS. The equipment will be stored on deck during the transit before use in the next area. The other immersible equipment will be rinsed at the end of the relevant survey activities with either salt or	Low

		fresh water depending on the equipment before being dried and stored.	
Sediment Sampling (vibrocore, boreholes)	Low	The sediment collected will be stored on board the vessel for scientific analysis and will not be redistributed elsewhere within the survey area. The equipment will be cleaned between survey sites so there is a low risk of contamination of INNS.	Low

Please add more rows if necessary

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