

<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:	Associated British Ports
Short description of activity: <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>	Marine Ground Investigations (GI) at Port Talbot comprising boreholes, Van Veen grabs, Cone Penetration Tests (CPT) with Piezocone (Mostap) sampling, and vibrocores. Works take place in the harbour, within the inner dock and at the dock entrance in the Afon Afan. The works are described in more detail in the 'Method Statement and Supporting Information' report¹. More information on methodology is provided in the Technical Note submitted to NRW in July 2024 in response to queries on Marine Licence application ref RML2420.
Estimated timings of proposed licensed activities:	Planned date for start of works is 02 September 2024. Works are planned for 8 weeks but may take up to 12 if adverse weather is encountered.

¹ ABPmer (2024). Future Port Talbot Ground Investigations: Method Statement and Supporting Information. Report produced for ABP. Ref: 4474, February 2024.

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
Causeway Giant 1	River Lagan Belfast: 24/06/2024 – 09/07/2024	Identified during works: • Zebra Mussels (<i>Dreissena polymorpha</i>) Other INNS which may be present identified using National Biodiversity Network (NBN) Atlas: • <i>Monocorophium sextonae</i> • <i>Mya arenaria</i> • <i>Styela clava</i> • <i>Asterocarpa humilis</i> • <i>Austrominius modestus</i>	No anti-fouling
	Tipner West, Portsmouth: 03/06/2024 – 18/06/2024	None identified during works. Other INNS identified using NBN Atlas: • <i>Desdemona ornata</i> • <i>Grateloupia subpectinata</i> • <i>Eusarsiella zostericola</i> • <i>Monocorophium acherusicum</i> • <i>Austrominius modestus</i> • <i>Ammothoea hilgendorfi</i> • <i>Ruditapes philippinarum</i> • <i>Crepidula fornicata</i> • <i>Mercenaria mercenaria</i> • <i>Bugula neritina</i> • <i>Ficopomatus enigmaticus</i> • <i>Diadumene lineata</i> • <i>Hydroides ezoensis</i> • <i>Amphibalanus amphitrite</i>	

		• <i>Mya arenaria</i> • <i>Bonnemaisonia hamifera</i> • <i>Bugulina simplex</i> • <i>Bugulina stolonifera</i>	
	Belfast Lough: 18/04/2024 – 31/05/2024	Identified during works: • <i>Crepidula fornicata</i> • <i>Styela clava</i> • <i>Asterocarpa humilis</i> • <i>Ciona intestinalis</i> • <i>Corella eumyota</i> • <i>Bugula neritina</i> • <i>Bugulina simplex</i> • <i>Caprella mutica</i> • <i>Semibalanus cariosus</i> • <i>Sargassum muticum</i> • <i>Colpomenia peregrina</i> • <i>Undaria pinnatifida</i> • <i>Grateloupia turuturu</i> Other INNS identified using NBN Atlas: • <i>Alitta succinea</i>	
	Hunterston Marine Yard: 04/03/2024 – 17/04/2024	None identified during works. Identified using NBN Atlas: • <i>Mya arenaria</i> • <i>Sargassum muticum</i>	
	Pembroke Dock: 22/01/2024 – 03/03/2024	None identified during works. Identified using NBN Atlas: • <i>Austrominius modestus</i> • <i>Crepidula fornicata</i> • <i>Calyptrea chinensis</i> • <i>Diadumene lineata</i> • <i>Monocorophium sextonae</i> • <i>Styela clava</i> • <i>Anotrichium furcellatum</i> • <i>Paralaeospira malardi</i> • <i>Monocorophium acherusicum</i> • <i>Botrylloides violaceus</i> • <i>Undaria pinnatifida</i> • <i>Echinogammarus marinus</i> • <i>Aix galericulata</i> • <i>Corella eumyota</i> • <i>Mya arenaria</i> • <i>Antithamnionella ternifolia</i> • <i>Solieria chordalis</i> • <i>Grateloupia turuturu</i> • <i>Magallana gigas</i> • <i>Molgula manhattensis</i> • <i>Tricellaria inopinata</i> • <i>Sargassum muticum</i> • <i>Antithamnionella spirographidis</i> • <i>Bugulina stolonifera</i> • <i>Melanothamnus harveyi</i>	

	Belfast Harbour D3: 14/12/2023 – 17/01/2024	Identified during works: • <i>Crepidula fornicata</i> • <i>Austrominius modestus</i> Identified using NBN Atlas: • <i>Monocorophium sextonae</i> • <i>Mya arenaria</i> • <i>Styela clava</i> • <i>Asterocarpa humilis</i> • <i>Austrominius modestus</i>	
	Corran Slipways, Loch Linnhe: 19/10/2023 – 12/12/2023	None identified during works. Identified using NBN Atlas: • <i>Magallana gigas</i>	
	Yard stay, Dumbarton: 18/09/2023 – 18/10/2023	None identified.	
	Immingham Port, River Humber: 12/08/2023 – 17/09/2023	None identified during works. Identified using NBN Atlas: • <i>Petricolaria pholadiformis</i>	
	Yard stay, Dumbarton (pontoons blasted and re-painted): 17/06/2023 – 11/08/2023	None identified.	
	Gourock Ferry Terminal, River Clyde: 24/05/2023 – 16/06/2023	None identified during works. Identified using NBN Atlas: • <i>Oncorhynchus mykiss</i>	
Causeway Giant 2	Yard Stay Bere Island Boat Yeard (pontoons painted): 31/03/2024 - present	Identified using NBN Atlas: • <i>Sargassum muticum</i>	No anti-fouling
	Rosslare Harbour 24/11/2023 – 31/03/2024	None identified.	
	Immingham Dock (waiting inside lock gates to transit) 05/11/2023 – 23/11/2023	Identified using NBN Atlas: • <i>Eriocheir sinensis</i>	
	Immingham Dock, River Humber 21/09/2023 – 05/11/2023	None identified during works. Identified using NBN Atlas: • <i>Eriocheir sinensis</i>	
	Before 21st September 2023 barge was owned and operated by Red 7 Marine	N/A	
	Rosslare Harbour:	• None identified.	

Ocean Clipper (CTV)	24/11/2023 – 31/03/2024		No anti-fouling
	Immingham Dock (waiting inside lock gates to transit) 05/11/2023 – 23/11/2023	Identified using NBN Atlas: • <i>Eriocheir sinensis</i>	
	Immingham Dock, River Humber 21/09/2023 – 05/11/2023	None identified during works. Identified using NBN Atlas: • <i>Eriocheir sinensis</i>	
Ocean Energy (Multicat)	Middlesbrough, UK: 24/06/2024 – 03/07/2024	None identified during works. Identified using NBN Atlas: • <i>Mya arenaria</i>	Yes, vessel has antifouling applied in last 24 months, last anti-fouling applied was during construction in January 2023 and was biocide free.
	Leith, Scotland: 19/06/2024 – 23/06/2024	None identified during works. Identified using NBN Atlas: • <i>Mya arenaria</i>	
	Middlesbrough, UK: 10/05/2024 – 18/06/2024	Same as above for Middlesbrough.	
	Rotterdam, Netherlands: 08/02/2024 – 09/05/2024	None identified during works or using Global Biodiversity Information Facility (GBIF). Identified during literature search (includes non-natives which may not be classified as invasive) ^{2,3} : • <i>Ptilohyale littoralis</i> • <i>Dasyatis japonica</i> • <i>Ulva pertusa</i> • <i>Ficopomatus enigmaticus</i> • <i>Molgula manhattensis</i> • <i>Styela clava</i> • <i>Vibrio cf. brasiliensis</i> • <i>Coscinodiscus wailesii</i> • <i>Mediopyxis helysia</i> • <i>Odontella sinensis</i> • <i>Protoceratium reticulatum</i> • <i>Thalassiosira nordenskioeldii</i> • <i>Cordylophora caspia</i> • <i>Nemopsis bachei</i> • <i>Amphibalanus improvisus</i> • <i>Austrominius modestus</i> • <i>Bosmina cf. longirostris</i> • <i>Bosmina coregoni</i> • <i>Caprella mutica</i> • <i>Hemigrapsus sanguineus</i>	

² Faasse, M.A. (2014) 'Introduction of *Ptilohyale littoralis* to The Netherlands', Marine Biodiversity Records, 7, p. e28. doi:10.1017/S1755267214000293.

³ GiMaRIS (2014) Port of Rotterdam survey and monitoring non-native species conform HELCOM/OSPAR protocol. Bureau Risicobeoordeling & onderzoeksprogrammering, Nederlandse Voedsel- en Warenautoriteit, Ministerie van Economische Zaken.

		• <i>Hemigrapsus takanoi</i> • <i>Jassa marmorata</i> • <i>Rhithropanopeus harrisii</i> • <i>Mnemiopsis leidyi</i> • <i>Corbicula fluminalis</i> • <i>Crassostrea gigas</i> • <i>Crepidula fornicata</i> • <i>Dreissena bugensis</i> • <i>Dreissena polymorpha</i> • <i>Physa acuta</i> • <i>Potamopyrgus antipodarum</i> • <i>Rangia cuneata</i> • <i>Neogobius cf fluviatilis</i> • <i>Neogobius melanostomus</i>	
	Terneuzen, Netherlands: 26/10/2023 – 08/02/2024	None identified during works or using Global Biodiversity Information Facility (GBIF). Identified during literature search (includes non-natives which may not be classified as invasive)⁴: • <i>Antithamnionella spirographidis</i> • <i>Bonnemaisonia hamifera</i> • <i>Dasysiphonia japonica</i> • <i>Neosiphonia harveyi</i> • <i>Codium fragile fragile</i> • <i>Ulva australis</i> • <i>Coscinodiscus wailesii</i> • <i>Fibrocapsa japonica</i> • <i>Heterosigma akashiwo</i> • <i>Odontella sinensis</i> • <i>Pleurosigma simonsenii</i> • <i>Sargassum muticum</i> • <i>Thalassiosira hendeyi</i> • <i>Thalassiosira nordenskiöldii</i> • <i>Thalassiosira punctigera</i> • <i>Undaria pinnatifida</i> • <i>Haliclona (Soestella) xena</i> • <i>Mycale (Carmia) micracanthoxea</i> • <i>Sycon scaldiense</i> • <i>Mnemiopsis leidyi</i> • <i>Blackfordia virginica</i> • <i>Cordylophora caspia</i> • <i>Diadumene lineata</i> • <i>Garveia franciscana</i> • <i>Barentsia ramosa</i> • <i>Biflustra grandicella</i> • <i>Bugulina stolonifera</i> • <i>Smittoidea prolifica</i> • <i>Tricellaria inopinata</i> • <i>Cephalothrix simula</i> • <i>Alitta virens</i>	

⁴ GiMaRIS (2017) Non-indigenous marine species in the Netherlands. The Department of Nature & Biodiversity of the Ministry of Agriculture, Nature and Food Quality & the Office for Risk Assessment and Research of the Netherlands Food and Consumer Product Safety Authority.

		• <i>Boccardia proboscidea</i> • <i>Boccardiella hamata</i> • <i>Ficopomatus enigmaticus</i> • <i>Marenzelleria viridis</i> • <i>Neodexiospira brasiliensis</i> • <i>Pileolaria berkeleyana</i> • <i>Sabellaria spinulosa</i> • <i>Streblospio benedicti</i> • <i>Syllidia armata</i> • <i>Syllis gracilis</i> • <i>Crepidula fornicata</i> • <i>Ensis leei</i> • <i>Magallana gigas</i> • <i>Mya arenaria</i> • <i>Mytilopsis leucophaeata</i> • <i>Petricolaria pholadiformis</i> • <i>Ruditapes philippinarum</i> • <i>Teredo navalis</i> • <i>Anguillicoloides crassus</i> • <i>Acartia (Acanthacartia) tonsa</i> • <i>Amphibalanus amphitrite</i> • <i>Amphibalanus improvisus</i> • <i>Ampithoe valida</i> • <i>Austrominius modestus</i> • <i>Balanus balanus</i> • <i>Callinectes sapidus</i> • <i>Caprella mutica</i> • <i>Caprella scaura</i> • <i>Chelicerophium curvispinum</i> • <i>Cryptorchestia cavimana</i> • <i>Eriocheir sinensis</i> • <i>Hemigrapsus sanguineus</i> • <i>Hemigrapsus takanoi</i> • <i>Incisocallope aestuarius</i> • <i>Jassa marmorata</i> • <i>Melita nitida</i> • <i>Monocorophium sextonae</i> • <i>Mytilicola intestinalis</i> • <i>Palaemon macrodactylus</i> • <i>Pseudodiaptomus marinus</i> • <i>Ptilohyale littoralis</i> • <i>Synidotea laticauda</i> • <i>Telmatogeton japonicus</i> • <i>Zeuxo holdichi</i> • <i>Aplidium glabrum</i> • <i>Botrylloides violaceus</i> • <i>Didemnum vexillum</i> • <i>Diplosoma listerianum</i> • <i>Molgula manhattensis</i> • <i>Perophora japonica</i> • <i>Styela clava</i>	
	Hartlepool, UK: 23/10/2023 – 26/10/2023	None identified during works. Identified using NBN Atlas: • <i>Austrominius modestus</i> • <i>Bugulina simplex</i>	

	Immingham, River Humber: 03/10/2023 – 23/10/2023	None identified during works. Identified using NBN Atlas: • <i>Eriocheir sinensis</i> • <i>Petricolaria pholadiformis</i>	
	Rotterdam, Netherlands: 18/09/2023 – 02/10/2023	Same as above for Rotterdam.	
	Hartlepool, UK: 03/07/2023 – 17/09/2023	Same as above for Hartlepool.	
	Rotterdam, Netherlands: 16/07/2023 – 02/08/2023	Same as above for Rotterdam.	
	Copenhagen, Denmark: 04/05/2023 – 15/07/2023	None identified during works or using Global Biodiversity Information Facility (GBIF). Identified during literature search ⁵ : • <i>Magallana gigas</i> • <i>Mnemiopsis leidyi</i> • <i>Neogobius melanostomus</i> • <i>Sargassum muticum</i> • <i>Spartina anglica</i> • <i>Gracilaria vermiculophyllum</i> • <i>Ensis leei</i> • <i>Hemigrapsus sanguineus</i> • <i>Hemigrapsus takanoi</i> • <i>Styela clava</i> • <i>Marenzelleria neglecta</i> • <i>Marenzelleria viridis</i> • <i>Ficopomatus enigmaticus</i> • <i>Fucus distichus</i> • <i>Rhithropanopeus harrisii</i> • <i>Crepidula fornicata</i> • <i>Ocenebrellus inornatus</i> • <i>Cordylophora caspia</i> • <i>Caprella mutica</i>	

⁵ Jensen, K.R., Andersen, P., Andersen, N.R., Bruhn, A., Buur, H., Carl, H., Jakobsen, H., Jaspers, C., Lundgreen, K., Nielsen, R. and Strandberg, B. (2023). Reviewing introduction histories, pathways, invasiveness, and impact of non-indigenous species in Danish marine waters. *Diversity*, 15(3), p.434.

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
Causeway Giant 1	Low	Jacked up out of water for most of every project and travels by road between works; cleaned thoroughly at end of each project before being shipped to the next location. Low risk level due to being cleaned following projects and transported via road. To note, there are no ballast tanks on the Causeway Giant 1 JUB.
Causeway Giant 2	Low	Jacked up out of water for most of every project and travels by sea between works; has been out of the water since March for 5-year certification; all pontoons painted. To note, there are no ballast tanks on the Causeway Giant 2 JUB.
Ocean Clipper (CTV)	Low	Low risk due to vessel being removed from water between projects and transported by road. To note, there are no ballast tanks on the Ocean Clipper vessel.
Ocean Energy (Multicat)	Low	This vessel has a biocide-free anti-fouling coating applied. The last anti-fouling “touch-up” was applied during construction in January 2023. The coating applied was Interswift 660 (BMA674 Red), a TBT-free Self Polishing Copolymer Antifouling coating (see certificate in Appendix 1). To note, there are no ballast tanks on the Ocean Energy vessel.

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	Jacked up out of the water for majority of project. Cleaned following the completion of a project and transported by road.	Low
Causeway Giant 2	Jacked up out of the water for majority of project. Cleaned following the completion of a project. Has been out of water since March for 5-year certification.	Low
Ocean Clipper (CTV)	Stored out of water; removed from water between projects and transported by road.	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
<i>Sediment sampling (Mostap, vibrocore, grab sampling, boreholes)</i>	Source	Port Talbot (inc inner dock and dock entrance) (Latitude = 51°34'34.35"N, Longitude = 3°48'19.55"W)	Potential depth and salinity differences between sampling sites (no receiving environment as all sediment is removed)	Port Talbot Harbour and Channel Dredge Areas (information sourced from National Biodiversity Network dataset information and from recent marine ecology surveys) Known to be present at the dredge area: • <i>Crepidula Forficata</i> has been found within the harbour and surrounding area including Swansea Bay. • <i>Sargassum Muticum</i> has been found within the harbour and to the west on Mumbles head. • <i>Styella clava</i> has been found within the harbour, throughout	Low	The sediment collected will be stored onboard the vessel for scientific analysis and will not be redistributed elsewhere within the survey area. The equipment will be checked and cleaned in between sampling areas as discussed in Section B.4.

				much of Swansea bay and to the west at Mumbles head. Known to be present in near coastal locations: • <i>Eriocheir Sinesis</i> has been found to the West of Port Talbot at Swansea. • <i>Spartina Townsendii</i> has been found to the east of Port Talbot, at Kenfig nature reserve and to the west on the Neath river. • <i>Ficopoaatus enigmaticus</i> has been found to the West at Swansea. • <i>Austrominius modestus</i> common around the South Wales coastline. Recorded during marine ecology surveys (April, 2023): • <i>Sargassum Muticum</i> • <i>Crepidula Fornicata</i> • <i>Boccardia proboscidea</i>		
	Receiving	N/A	N/A	N/A	N/A	N/A

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.

No biological material will be used or transferred during the licensed activities.

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					

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
			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.

Vibrocore, Grab Sampler, Jack-up Barge (JUB), Cone Penetrometer, Sonic Casing and Tooling, Rotary Core Casing and Tooling, Ocean Energy (Multicat), Ocean Clipper (CTV).
--

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)
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		

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	Low	Low risk due to vessels being cleaned following project completion and removed from water between projects. In addition, no vessel has ballast tanks.	Low
Sediment sampling (vibrocore, grab sampling, boreholes)	Low	The sediment collected will be stored onboard 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
Submersible equipment	Low	The sampling equipment will be rinsed with seawater before the survey starts, between each sampling area to prevent contamination of samples between sites (i.e. harbour, Afon Afan and the inner dock) and stop the spread of any INNS. The	Low

		equipment will be stored on deck during the short transit before use in the next area. The other submersible equipment will be rinsed at the beginning and end of the relevant survey activities with either salt or fresh water depending on the equipment before being dried and stored.	
Personal Protective Equipment (PPE)	Medium	All PPE including boots and clothing to be washed down after operatives have been present in the intertidal zone. Separate PPE and boots etc. to be worn by operatives when not working within in the intertidal zone.	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

Appendix 1: Certificate of anti-fouling application for Ocean Energy (Multicat) vessel.

International

This is to certify that

“YN571827”

Received a touch up with

**Interswift 6600 (BMA674 Red), a TBT-free Self Polishing
Copolymer Antifouling coating**

in compliance with the IMO Antifouling Systems Convention of 2001
(AFS/CONF/26) at the New Building in Damen Gorinchem, The Netherlands
in January 2023.

**Interswift 6600 (BMA674 Red), is manufactured by International Paint Ltd.
and contains the following active ingredients**

Cuprous Oxide (CAS Number 1317-39-1)
Zinc Ethylene bis-dithiocarbamate (CAS Number 12122-67-7)

This antifouling coating complies with the Vessel General Permit Scheme
under the US Clean Water Act.

Mike Gallaway
UK & Benelux, Technical Service Manager

Marine Coatings

All products supplied and technical advice or recommendations given are subject to our standard Conditions of Sale.

Registered in England No. 63604
Registered Office 26th Floor, Portland House, Bressenden Place, London SW1E 5BG

AkzoNobel