



# **Hunterston Construction Yard Biosecurity Plan**

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# CONTROL SHEET

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# 1 INTRODUCTION

EnviroCentre Ltd has been appointed by Arch Henderson on behalf of Clydeport Operations Ltd., to undertake an Environmental Impact Assessment (EIA) in relation to the upgrade of the existing Hunterston Construction Yard (HCY) into a harbour facility with a large working platform suitable for renewable industries. This Environmental Impact Assessment Report (EIAR) comprises the written findings of the EIA process undertaken under both the Town & Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 ('the EIA Regulations') and the Marine Works (Environmental Impact Assessment (Scotland) Regulations 2017 ('the Marine EIA Regulations').

To inform the EIAR EnviroCentre produced a Scoping Report in 2023. Scoping responses were received from North Ayrshire Council and the Marine Directorate. The scoping responses included the following comments in relation to Marine Invasive Non Native Species (mINNS).

**Table 1 Scoping Responses**

Consultee	Response
NatureScot	<p>Given this maritime movement we recommend that an assessment of management actions and/or mitigation required to address issues relating to invasive species such as, but not limited to, wireweed (<i>Sargassum muticum</i>) and carpet sea squirt (<i>Didemnum vexillum</i>) are carried out.</p> <p>We advise that a site-based biosecurity plan for marine non-native species and terrestrial non-native species affecting seabirds should be developed in line with best practice Marine Biosecurity Planning guidance (SNH and Firth of Clyde Forum 2014)</p>
Marine Directorate – Marine Invasive Species Team	<p>I don't have many comments but I do have some reservations about the statement made by Clydeports that <i>Sargassum muticum</i> is the only marine invasive non-native species of concern at the site; I would certainly include <i>Didemnum vexillum</i> in this as it is a high impact species which we know to be present in nearby Fairlie, and also <i>Styela clava</i> as the NatureScot response highlights.</p> <p>The only other thing I would like to flag in addition to the comments by NatureScot is a couple of Biosecurity Plans specific to <i>Didemnum vexillum</i> (carpet sea squirt) for Loch Fyne and Loch Creran which have industry-specific actions that may be useful in drafting their Biosecurity Plan.</p>

In support of the application and EIAR this document is a Draft Marine Biosecurity Management Plan which covers the proposed development and the operation of the Hunterston Construction Yard.

The document is a live document and will be subject to update following commission of a contractor to undertake the site construction works and subject to changes in operational practices at the site or changes in guidance.

The plan has been informed by the following documents:

- Marine Biosecurity Planning – Scottish Natural Heritage (now NatureScot) and Firth of Clyde Forum, February 2014;
- Marine biosecurity planning – Identification of best practice: A review – Scottish Natural Heritage (now NatureScot), 2014
- Firth of Clyde Biosecurity Plan – Clyde Marine Planning Partnership, 2012-2016
- Loch Creran - Community led marine biosecurity plan to support an 'active loch' – April 2017
- Loch Fyne Community Biosecurity Action Plan, 2020
- A Brighter Future for Seabirds – Biosecurity for Life

## 1.1 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

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## 2 SITE INFORMATION

### 2.1 Construction Phase

The proposed development relates to the upgrade of the existing Hunterston Construction Yard (HCY) into a harbour facility with a large working platform suitable for renewable industries. The development works will incorporate construction works in the Marine Environment which will require to be licensed by the Marine Directorate, these will include:

- Formation of a temporary working platform;
- Removal of the existing rock armour on the western boundary;
- Removal of the existing bund on the western boundary;
- Installation of sub-surface revetments for the new quay wall;
- Capital Dredging to a depth of -12m CD;
- Disposal of dredging spoil to a licensed marine spoil disposal site;
- Installation of fenders and other quay wall infrastructure i.e. drainage outfalls; and
- Installation of navigational aids.

### 2.2 Operational Phase

Following the proposed construction works the site will remain in use as an active port facility which will incorporate movement and berthing of commercial vessels. In addition there may be the requirement for maintenance dredging to facilitate ongoing access for vessels.

### 2.3 Potential Existing mINNS

The Firth of Clyde Biosecurity Plan identifies that the following mINNS are known to be present within the wider Firth of Clyde:

- A bryozoan (no common name) (*Tricellaria inopinata*)
- A hydroid (no common name) (*Cordylophora caspia*)
- Acorn barnacle (*Elminius modestus*)
- An orange sheath tunicate (no common name) (*Botrylloides violaceus*)
- Carpet sea squirt (*Didemnum vexillum*)
- Common cord-grass (*Spartina anglica*)
- Green sea fingers (*Codium fragile*)
- Japanese skeleton shrimp (*Caprella mutica*)
- Leathery sea squirt (*Styela clava*)
- Orange tipped sea squirt (*Corella eumyota*)
- Wireweed (*Sargassum muticum*)

As detailed in the EnviroCentre Scoping Report Japanese wireweed (*Sargassum muticum*), was previously identified as a known issue in the development area as detailed in a previous Environmental Statement associated with a proposed power station development at Hunterston (Ayrshire Power Limited, 2010).

The Scoping consultation responses from NatureScot have also identified carpet sea squirt (*Didemnum vexillum*) and Leathery sea squirt (*Styela clava*) as being identified in the wider Fairlie area.

Whilst these are named known mINNS that may be present in the vicinity of the site it is considered that the proposed Biosecurity Measures will also be beneficial in relation to other mINNS.

The following information with respect to the named mINNS has been obtained from the Firth of Clyde Biosecurity Plan – Clyde Marine Planning Partnership, 2012-2016

### **Wireweed**

*Wireweed is a highly distinctive large olive-brown seaweed, often over 1m long. Its lateral branches hang like washing from a line when held out of the water. Wireweed competes with native seaweeds and sea grasses through rapid-growth, shading and abrasion. It is a nuisance in harbours and shallow waters where it is a hazard to boating due to entanglement of propellers. It can dominate in rock pools, altering the habitat. It is distributed widely along the coasts of south and west England, Wales and West Scotland. It was first recorded in Scotland in Loch Ryan in 2004 and has since populated various areas in the Firth of Clyde and also now moved further north up the west coast. There is some concern over potential fouling of aquaculture installations. Whilst physical removal may be possible, care must be taken to prevent further spread of the species and re colonisation from surrounding populations following clearance is likely.*

### **Carpet Sea Squirt**

*First recorded in 2008 in the Plymouth and Holyhead estuaries, carpet sea squirt has now been recorded in a number of locations in Great Britain including a couple on the Clyde. It forms pale orange, cream or off-white colonies of extensive thin (2-5 mm) sheets and can form long pendulous outgrowths. Colonies can overgrow other fauna and occupy a substantial proportion of available space. On offshore banks in the USA it has shown very extensive coverage of the seabed, potentially smothering species living in gravel and affecting aquaculture. There have been decreases in brittle stars and sea urchins noted in The Netherlands. It is suggested that carpet sea squirt degrades in cold weather and that this influences its ability to regenerate and reproduce sexually<sup>35</sup>. Wrapping affected surfaces in polythene sheets secured with cable ties has been effective in New Zealand and N Wales, whilst a costly exercise, causes the encased sea squirt to suffocate and decay within days, and can be enhanced by adding a biocide such as bleach within the plastic wrapping. Repopulation from an unknown source has occurred in N Wales. Funding will soon be sought at a UK level to consider further options to tackle this invasive species.*

In addition the following detail is obtained from the Loch Fyne Community Biosecurity Action Plan, 2020:

- *D. vexillum* prefers to grow on manmade structures.
- *D. vexillum* can spread by larval dispersal but also by fragmentation of colonies which can dislodge and settle elsewhere.
- Local conditions such as wave action, UV exposure and freshwater events such as surface water can all influence where it flourishes.
- *D. vexillum* is killed by natural methods such as desiccation (drying out) and prolonged exposure to freshwater. Any other treatments may require a licence and advice should be sought before taking action.
- Maintaining antifouling coatings and reducing biofouling on vessels is a useful step towards lowering risk.

### **Leathery Sea Squirt**

*The leathery sea squirt is a brown solitary sea squirt up to 20 cm tall, attached by a small flat holdfast at the base of a narrow stalk. It attaches to solid surfaces in shallow water, especially in harbours and marinas but also on wrecks and natural rock bottoms. It is a large organism that can achieve high*

*densities and did prove to be a severe nuisance to long-line mussel farming in eastern Canada until replaced by other invasive species, however, this species has not been noted as a problem to aquaculture in the UK to date. It is distributed from the Clyde around the south coast of England and to the Humber. Mechanical clearance by individual 'picking' appears possible; however, small unstalked individuals would be very inconspicuous, suggesting that total clearance of surfaces would be necessary to achieve eradication.*

## **2.4 Site Condition**

The site is located in a saline environment with minimal input of freshwater, as such the site is considered to represent a higher risk environment for presence and establishment of mINNS.

The proposed development will have a new quay wall with associated fenders and marine infrastructure. It is known that mINNS generally prefer to settle on man-made structures rather than natural surfaces, as such these are likely potential areas where mINNS may be established.

The site itself forms a man made island connected to the mainland via Oil Rig Road. As such there is potential for migration of terrestrial invasive species to the site from the wider mainland. Regardless of this potential it is recommended that measures are considered to address the potential for spread of terrestrial invasive species to the site (in this case considered to be focussed on rodents). This is principally considered to be associated with any vessel bringing in cargo or equipment directly to the site as part of the construction or operation.



### **3 PATHWAYS**

On the basis of the proposed construction and operational activity at the site the following potential pathways in relation to spread of mINNS (both existing and potentially imported to site) are identified:

- Use of construction barges and slow moving vessels
- Using vessels from locations outside local water body
- Importation of materials
- Removal of old structures/ equipment
- Biofouling
- Hull cleaning
- Operating dockside berths for visiting vessels
- Maintaining pilings and ladders
- Ballast water transfer
- Plant and equipment
- Navigational aid cleaning
- Dredge material
- Marine litter
- Contractors
- Import of materials and cargo to the site.

## 4 BIOSECURITY MEASURES

With respect to the proposed construction works these will require to undertaken under a Peel Ports Works Licence. When assessing works licences Peel Ports request that a biosecurity risk assessment is included in higher risk submissions. The contractor identified to carry out the construction phase of the works will require to produce their own updated Biosecurity Plan to reflect their operations.

The Peel Ports Marine Team has held biosecurity workshops across their port facilities with external stakeholders to help understand the practical measures to control the spread of INNS within marine environments.

The following table details proposed biosecurity measures to be adopted at the site as part of the construction and operation, as noted previously this requires to be updated to reflect specific working elements.

**Table 2 Biosecurity Measures**

Activity	Biosecurity Measure
Construction Works Including Dredging and Vessel Movements	<p>Gather biosecurity information on all vessels and equipment proposed to be used in marine environment. Request anti-fouling maintenance history, sites/ regions visited since last anti-fouling applied.</p> <p>Where review indicates high risk request contractor to address risk prior to mobilising plant to site</p> <p>Rodenticide poison and/or kill traps should be in place on all vessels which pose a significant risk of transporting rodents.</p> <p>Ships should use line guards on ship-to-shore lines to stop rodents using mooring lines to get on and off the ship.</p> <p>Make contractor aware of existing potential for mINNS at site and confirm biosecurity measures to be carried out during works/at completion of works to ensure no potential for spread from site to other areas</p>
Prevention of biofouling on infrastructure	Apply anti fouling coating to relevant infrastructure at site and carry out routine maintenance and reapplication in line with manufacturers instructions
Removing Biofouling	Avoid biofouling scrapings entering the water by appropriate collection (i.e. using tarpaulin) and collect any materials generated during washdown
Operation of facility for berthing commercial vessels	<p>Gather biosecurity information from visiting vessels at the earliest opportunity; including port of origin and when anti-fouling was last applied to hull.</p> <p>Carry out visual inspection of vessels deemed high risk</p>

	<p>Rodenticide poison and/or kill traps should be in place on all vessels which pose a significant risk of transporting rodents.</p> <p>Ships should use line guards on ship-to-shore lines to stop rodents using mooring lines to get on and off the ship.</p> <p>Vessel operators should not dispose of any water contained on the vessel (e.g., ballast tanks, bilge water, anchor lockers) into the water at your site</p>
Port Operation	<p>All staff and visiting contractors and vessel operators to be made aware of biosecurity plans</p> <p>Staff to be trained on biosecurity</p> <p>Develop a monitoring strategy to allow for routine assessment of areas where potential biofouling could occur</p> <p>Promote a culture of reporting mINNS if observed</p> <p>Ask contractors carrying out maintenance to specifically review for evidence of mINNS presence</p> <p>Store waste securely in rodent proof bins and dispose of regularly</p>



