



MHPA Maintenance Dredging 2022-2031

SPECIFIC BIOSECURITY PLAN FOR MECHANICAL MAINTENANCE DREDGING 2022



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

1. Introduction

- 1.1. **Applicant Name:** Milford Haven Port Authority
- 1.2. **Existing Marine Licence reference number:** DML 1646
- 1.3. **Description of Operation:** Port of Milford Haven Maintenance Dredge
- 1.4. **Dredge and disposal Site Location(s):** Disposal will be at sites LU169
- 1.5. **Activity period:** August 2022 to November 2022
- 1.6. **Biosecurity Manager/Officer:** Environmental Manager/Harbourmaster
- 1.7. **Approval Date:** 25/07/2022
- 1.8. **Document version number:** 1.3 – Specific Plan July 2022

2. Information related to the Environmental conditions affecting biosecurity

	Source environment/location	Receiving environment/location
Marine Non-native species known to be present	Please see spreadsheet at Appendix 1. This list is derived from the report produced by SEACAMS entitled, "Distribution of Marine Non-Native Species on Vertical Artificial Structures in Milford Haven" (Jones & Whitmire, 2015)	No evidence available at present.

3. Vessels & equipment involved in the operation¹

The format of this plan is in the form of a generic biosecurity plan to cover the whole of MHPA's dredge disposal licence period. It forms part of MHPA's Appropriate Assessment for its internal Marine Works Licence, as evidence of the approach taken to biosecurity risk assessment in the dredging strategy.

Vessel name	Photo reference (Please insert images in the appendix)	Vessel type	Details, Risk factors & Justification e.g. Pathway, vessel speed, biofouling control, Inspection history, Internal treatment history etc..	Risk: (High/Medium/Low)
Prins2	See appendix 3	Seagoing crane / Hopper Barge	See IMO Biofouling Guidance	Low

¹ The licence holder should update and submit a revised plan as a result of any amendments to the list of vessels and/or equipment to be utilised as part of current licence.



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

Prins 3	See Appendix 3	Self-Propelled Hopper Barge		Low
<u>Verrazzano / Magellano</u>	<u>See Appendix 3</u>	<u>Self-Propelled Hopper Barge</u>	<u>See annexed assessment</u>	<u>Low</u>

3.1. Vessel & Disposal site Proposed activity log

In relation to maintenance dredging activities, marine invasive non-native species typically have three main vectors by which spread can potentially occur from one location to another. These are hull fouling, transfer in vessel ballast water and transfer within marine sediments. In order to better understand the potential risks associated to the current operation it is important to outline a brief history of vessel/equipment movements. This includes information such as vessel/equipment recent activity history (including any periods of inactivity) as well as information on ports visited and dredge/disposal site locations associated to the current licensable activity.

(Please note: a separate row should be inserted for changes in vessel and/or disposal site)

Vessel name	Brief description of vessel activity over the last 12 months	Transit ports <i>(list all ports to be visited on route to the current dredge activity if applicable)</i>	Transit ports arrival and departures		Disposal site name & reference
			Arrival date	Departure date	
Prins2	Dredging and Dumping	Port name	Date	Date	Darlowo disposal site, Baltic Sea; The Bay of Pomerania disposal site; Kolobrzeg disposal site, Baltic sea; W28, Szczecin Lagoon disposal site
		Rotterdam	2021-06-02	2021-06-14	
		Brunsbüttel	2021-06-16	2021-07-24	
		Trzebiez	2021-08-06	2021-09-02	
		Dziwnow	2021-09-03	2021-09-15	
		Kolobrzeg	2021-09-17	2021-10-10	
		Darlowo	2021-10-11	2021-10-24	
		Trzebiez	2021-10-26	2021-11-26	
		Rotterdam	2021-11-27	2021-12-21	
		Ouistreham	2022-01-01	2022-04-28	
		Dieppe	2022-05-01	2022-06-03	
		Slidrecht	2022-06-07	2022-06-19	
		Portland Port	2022-06-19	2022-07-31	
Prins3	Sailing and Dumping	Terneuzen	2021-05-17	2021-05-31	Ossenisse Disposal Site; North Tyne Disposal Site, North Sea; Prinses Arianehaven; Amerikahaven,
		Slidrecht	2021-05-31	2021-09-09	
		Port of Tyne	2021-09-09	2021-10-11	
		Rotterdam	2021-10-18	2021-12-15	
		Slidrecht	2021-12-15	2022-01-10	
		Velserkom ijmuiden	2022-01-10	2022-03-08	
		Slidrecht	2022-03-08	2022-04-05	
		Amsterdam	2022-04-05	2022-04-21	
		Slidrecht	2022-04-21	2022-05-05	
		Hellevoetsluis	2022-05-05	2022-05-17	



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

					Amsterdam;
					Quackstrand,
					Hellevoetsluis
<u>Magellano</u>	<u>Sailing and dumping</u>	<u>Tallinn, Estonia</u>	<u>2021-05-01</u>	<u>2021-06-15</u>	
		<u>Gent</u>	<u>2021-06-16</u>	<u>2021-10-10</u>	
		<u>Oostende</u>	<u>2021-10-10</u>	<u>2021-11-05</u>	<u>port vicinity</u>
		<u>Nieuwpoort</u>	<u>2021-11-05</u>	<u>2022-03-14</u>	<u>port vicinity</u>
		<u>Oostende</u>	<u>2022-03-14</u>	<u>present</u>	<u>port vicinity</u>
<u>Verrazano</u>	<u>Sailing and dumping</u>	<u>Tallinn, Estonia</u>	<u>2021-05-01</u>	<u>2021-06-13</u>	
		<u>Gent</u>	<u>2021-06-17</u>	<u>2021-10-29</u>	
		<u>Oostende</u>	<u>2021-10-29</u>	<u>2021-11-03</u>	<u>port vicinity</u>
		<u>Nieuwpoort</u>	<u>2021-11-03</u>	<u>2022-03-14</u>	<u>port vicinity</u>
		<u>Oostende</u>	<u>2022-03-14</u>	<u>present</u>	<u>port vicinity</u>

4. Activities which have a significant risk of introducing or spreading marine invasive non-native species *(Please provide as much detail as possible of how each of the activities have the potential to increase the risk of introduction or onward spread of marine invasive non-native species – insert additional rows as necessary)*

Activity and brief description	Details of how this could potentially increase the risk of introducing and/or spreading MINNS	Mitigation and Biosecurity measures to be implemented
Movement of a vessel from one port to another in relation to maintenance dredging activities.	- Inadequate anti-fouling of vessel may cause transfer of certain MINNS from one port to another - Inadequate biosecurity measures related to the cleaning/flushing of	- Regular antifouling of vessel demonstrated through up-to-date log book. Equipment is thoroughly flushed before moving off dredge disposal site in



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

	equipment and screens before moving to the next location. - Measures would include flushing suction equipment and re-depositing any screen material before leaving the site. - Transfer of ballast and/or hopper water between ports and/or between dredge and disposal sites.	order to minimise the risk of transporting MINNS between sites/ports. - Exchange of ballast/hopper water at sea before reaching the destination port or maintenance dredging site. When safe to do so ballast/hopper water should be exchanged prior to transitioning from one biogeographic area to another and away from the coast. - <u>In the case of Verrazzano / Magellano, seawater is not carried as ballast.</u>
Transport of dredged material from a port to its dredge disposal site(s)	In addition to the risks above, this carries the risk of direct translocation of MINNS present within the dredged material to the disposal site. Such species may not have been present at the disposal site hitherto.	If the same disposal sites are used as has historically been the case, the risk is much reduced. Dredging in Milford Haven has been ongoing for many years; as such, it is extremely likely that any MINNS found in Milford Haven, which can survive in the conditions at the disposal sites will already be present. If, however, conditions at the disposal sites are such that the species cannot survive, then the introduction of additional populations will not increase the risk of transmission, as the population will die. The degree of survivability of many MINNS when subjected to a cycle of dredging, transport, redeposition and subsequent environmental shock, is believed to be low (see Appendix I with specific reference to <i>Crepidula</i>.)



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

		The handling and release of <i>Crepidula</i> during dredging activities from the maintenance dredge area to the disposal site has been licenced by NRW Licence No S091378/1 dated 30/06/2022 and valid until 30/06/2027 (See appendix 2)
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5. Mitigation & Biosecurity Control Measures – Instructions for staff/contractors/site users *(insert additional rows as necessary)*

Who	What	Where	When
Master	Ensure vessel logbook is up to date and vessel has conformed to best practice under ballast water and hull fouling guidance. Exchange/cycling of hopper water should also be documented in the logbook when vessels are transitioning biogeographic areas.	Vessel logbook	To be kept up to date during normal operations
Master of each vessel	Ensure decks, hopper, bucket and wires are flushed clean of all sediment before leaving previous port	Port of disembarkation	Before leaving previous port
Master of each vessel	Ensure that any water remaining in the hopper is flushed out/exchanged for clean sea water in the open sea before entering Milford Haven	In the open sea before entering Milford Haven	Before entering Milford Haven for the first time

6. Operational surveillance and reporting procedure

Each vessel operation is stated in the daily production report, delivered daily to the authorised persons of the Milford Haven Port Authority.

7. Contingency Plan *(i.e. when changes to the plan necessary and have been identified - insert additional rows as necessary)*



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

Action	Responsibility	Location of Equipment
<i>Use of alternative equipment, vessels or methodologies</i>	<i>Who will oversee this action?</i>	<i>Where is this equipment coming from and to? Does the vessel and/or equipment need to be made bio-secure before use in the current operation?</i>

8. Location of biosecurity logbook

On the vessel

(Verrazzano / Magellano do not carry a biosecurity logbook. Further, as the vessels are not subject to the ballast convention a ballast record book is not maintained).

9. Annual Review Date

21/01/2023 and January each subsequent year for the duration of the disposal licence



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

Appendix 1 – MINNS List



MILFORD HAVEN PORT AUTHORITY

Generic Biosecurity Plan for 2022-2031 Strategic Dredging

Document No. MHPA AA. 25/07/2022.

Lists species recorded between 1953 and 2015 within Milford Haven waterway. The list shows records from several data sources that have been included for comparison, including records from NRW marine non-native GIS datasets, observations from this SEACAMS survey, personal communication and NBN Gateway.									
	List of marine non-native species known to have been present in Milford Haven	Recorded between 1953 - 2010 (from NRW marine non-native GIS datasets)	SEACAMS survey June 2014	Noted by Anne Bunker, NRW (email 3/4/14 supplied by MHWESG) plus other notes by Anne	Other sources	NBN Gateway as of 8 Jan 2015			
1	<i>Anotrichium furcellatum</i>	x				x			
2	<i>Amphibalanus improvisus</i>			pretty sure it has been recorded in Pembroke Mill pond in the 1980s	x (MBA July 2014)*				
3	<i>Antithamnionella spirographidis</i>	x				x			
4	<i>Antithamnionella ternifolia</i>	x				x			
5	<i>Aplidium cf. glabrum</i>				x (MBA July 2014)*	to be checked			
6	<i>Asterocarpa humilis</i>				x (Blaise Bullimore, MHWESG, Sept. 2014)	to be checked			
7	<i>Austrominius modestus</i>	x	x	x	x (MBA July 2014)*	x			
8	<i>Botrylloides cf. diegensis</i>		x						
9	<i>Botrylloides violaceus</i>	x	x	x					
10	<i>Bugula neritina</i>	x	x		x (MBA July 2014)*				
11	<i>Bugula simplex</i>				x (MBA July 2014)*	to be checked			
12	<i>Bugula stolonifera</i>				x (MBA July 2014)*	to be checked			
13	<i>Caprella mutica</i>	x				x			
14	<i>Codium fragile fragile</i>			x					
15	<i>Colpomenia peregrina</i>	x				x			
16	<i>Corella eumyota</i>		x	x	x (MBA July 2014)* Bullimore, MHV	x			
17	<i>Corophium sextonae</i>	x	x			x			
18	<i>Crassostrea gigas</i>	x		x		x			
19	<i>Crepidula fornicata</i>	x		x	x (MBA July 2014)* Bullimore, MHWESG, Sept. 2014				
20	<i>Eusarsiella zostericola (ostracod)</i>			2015 NRW grab samples from Gann Flat and Cresswell. Identified by IECS					
21	<i>Feldmannophycus okamurai (Caulacanthus okamurai)</i>	x		x					
22	<i>Ficopomatus enigmaticus</i>	x	x	x Pembroke Mill Pond and Picklerid	x (MBA July 2014)*	x			
23	<i>Grateloupia turuturu</i>	x	x	x Common Neyland Marina. Note NRW survey of channel buoys 2016?, Gann Flat 2017 ARB					
24	<i>Haliplanella lineata</i>	x		x in crevices and barnacle shells at NRW intertidal monitoring site Pembroke Ferry					
25	<i>Mya arenaria</i>	x				x			
26	<i>Mytilicola intestinalis</i>	x				x			
27	<i>Mytilus galloprovincialis</i>	x				x			
28	<i>Perophora japonica</i>	x				x			
29	<i>Polysiphonia harveyi</i>	x							
30	<i>Potamopyrgus antipodarum</i>	x				x			
31	<i>Sargassum muticum</i>	x	x	x		x			
32	<i>Salicaria chordalis</i>	x				x			
33	<i>Spartina anglica</i>	x	x	x		x			
34	<i>Styela clava</i>	x	x	x	x Bullimore, MHWESG, Sept. 2014	x			
35	<i>Tricellaria inoptiata</i>	x		x	x (MBA July 2014)*				
36	<i>Undaria pinnatifida</i>			First record in the Haven David Little	x (MBA July 2014)*, Mike Camplin, NRW Aug. 2014, A Bunker & D Little Sept. 2014				
*MBA survey results recorded in Wood, C., Bishop, J. & Yunnice, A., 2015. Comprehensive Reassessment of NNS in Welsh marinas January 2015. Obtained from: http://www.nonnativespecies.org/index.cfm?pageid=545&acc=									



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

Appendix 2 – NRW Schedule 9 release licence

Jonathan Monk
Environmental Manager
Milford Haven Port Authority
Gorsewood Drive
Milford Haven
Pembrokeshire
SA73 3EP

Licence No: **S091378/1**

Valid From: **30th June 2022**

Expiry: **30th June 2027**

WILDLIFE AND COUNTRYSIDE ACT 1981 (AMENDED BY THE ENVIRONMENT ACT 1990)

Licence to release non-native Schedule 9 species

This licence, granted under Section 16(4) (c) and Section 16 (5) of the Wildlife and Countryside Act 1981 (amended by the Environmental Protection Act 1990), by the Natural Resource Body for Wales otherwise known as Natural Resources Wales, hereby authorises the person named above, hereinafter referred to as the "licensee" and their technical specialists being staff of Anthony D Bates Partnership LLP, Van Oord UK Ltd, Boskalis Westminster Ltd, UK Dredging Ltd, Jan De Nul, NewWave Solutions Ltd (DEME), Dutch Dredging BV, Van Den Herik, Hegerman, Van der Kamp to:

1. **release** whilst undertaking maintenance dredging of superficial sediments;

Slipper Limpet (*Crepidula fornicata*) at the dredge disposal site **LU169**, within 0.5 nautical miles radius of **Grid Reference SR 49545 93362** at **Milford Haven, Pembrokeshire, SA73 3EP**.

When undertaking any activity under this licence the most up to date guidance provided by the Welsh Government in relation to Covid-19 must be adhered to.

This licence is valid for the period **as stated above** and is granted subject to compliance with the conditions as specified. Anything done otherwise than in accordance with the terms of the licence may constitute an offence.



Signed for and on behalf of
Natural Resources Wales

Ffôn/Tel: 0300 065 4974 / 0300 065 4921

Ebost/Email: trwyddedrhywogaeth@cyfoethnaturiolcymru.gov.uk or specieslicence@naturalresourceswales.gov.uk
www.cyfoethnaturiolcymru.gov.uk www.naturalresourceswales.gov.uk

Cyfoeth Naturiol Cymru / Natural Resources Wales, Maes y Ffynnon, Penrhos Garnedd, Bangor, Gwynedd, LL57 2DW

Croesewir gohebiaeth yn y Gymraeg a'r Saesneg

Correspondence welcomed in Welsh and English

CONDITIONS

Definitions

'NRW' is an abbreviation of the Natural Resources Body for Wales otherwise known as Natural Resources Wales

'EPS' is an abbreviation of European protected species

3. All the work carried out under this licence will be undertaken in accordance with the licence application dated 07/09/21 and associated documents and drawings; and the additional and/or revised information:
 - **the Licence Application Form** dated 4th June 2022;
 - **MHPA 2021 dredging strategy document Revision 3 October 2021** (received via email on 06/6/22);
 - **616-Figure 3 Disposal sites and Limits** (received via email on 6/6/22);
 - **616 Figure 4a Maintenance Dredge Areas 2021** (received via email on 6/6/22).
11. Within four weeks after the expiry of this licence the Licensee shall submit to NRW details of the activities and operations undertaken by virtue of this licence. Evidence to demonstrate how the work has complied with the method statement, including photographs, will be included in the end of licence report form.
- 200 While engaged in activities under this licence the Licensee shall carry a copy of the licence and must produce it to any police constable or employee of NRW, or other person authorised in writing by NRW, on demand.
- 201 If during the course of the works it becomes necessary to change the methodology from that submitted to the NRW as part of the licence application, all work will stop until the changes have been agreed with NRW and/or an amended licence has been received.
- 202 The activities hereby licensed are restricted to the Licensee, accredited agents and assistants as specified on this licence.
- 203 No accredited agent of the Licensee shall act under this licence unless they are in possession of a letter appointing them as the duly accredited agent of the licensee for the purpose of this licence. The accredited agent shall carry with them the said letter and a copy of this licence and shall produce them to any police constable or employee of NRW, or other person authorised in writing by the NRW, on demand.
- 204 Any assistants employed under this licence, whether employed to operate machinery or give advice, shall remain under the personal supervision of the Licensee or any accredited agent at all times.
- 205 The Licensed ecologist must assume full responsibility for the conduct of any assistants and additional accredited agents employed under this licence.
- 206 The activities and operations hereby covered are restricted to only those specified on this licence.
- 207 Unless specified otherwise this licence does not authorise the intentional killing, taking or injuring of any protected species.
209. Possession of this licence confers no rights of entry onto land. This includes open access land, where permission is required to undertake any activity under this licence. Permission to enter land or premises must be obtained from the owner or occupier. **Failure to seek permission will invalidate your licence and may result in offences being committed.** NRW will not accept responsibility for failure or omission by Licensees to fulfil this obligation and will consider immediate revocation of licences if complaints from owners or occupiers on these grounds are received.

- 210 If any European protected species (EPS) are incidentally captured or killed as a result of exercising this licence then NRW's Species Licensing team will be immediately advised on specieslicence@naturalresourceswales.gov.uk.
211. The Licensee shall advise NRW if there are any changes in their circumstances where such changes could invalidate this licence.
212. In all cases, any conditions listed above override or supersede the provisions of the submitted method statement.

NOTES

- N1. This licence authorises acts that would otherwise be an offence under The Conservation of Habitats and Species Regulations 2017. Failure to act within the purposes of this licence or failure to comply with the terms and conditions may mean that the licence cannot be relied upon and an offence is committed. Furthermore, under regulation 60 of the Conservation of Habitats and Species Regulations 2017 it is an offence to contravene or fail to comply with any condition of a licence issued on or after 21 August 2007. The maximum penalty upon summary conviction for an offence under the Regulations is a level 5 fine (£5000) and/or a six-month custodial sentence.
- N2. If this licence covers the possession of live material then the Licensee should ensure the species are kept in line with animal welfare best practice.
- N3. If you wish to exceed the limits set by this licence then please contact NRW.
- N4. This licence allows the Licensee to possess the number of specimens detailed in the above at any one time. If a new specimen is acquired but the total number in possession remains at or below the stated number then, subject to condition 5, there is no requirement for the Licensee to notify NRW.
- N5. This licence authorises possession only. It does not allow any live specimen to be taken, captured or collected from the wild. The taking, capturing or collection of any live specimen will be an offence unless covered by a separate licence or covered by an appropriate defence in the legislation.
- N6. The personal information on this licence will be kept and used by us in accordance with the General Data Protection Regulation (GDPR). We may discuss licence content with selected third parties. Other than stated above, we will not make the personal data on this licence available to third parties unless there is an overriding public interest. The GDPR gives you the right to know what data we hold about you, how we use it, to which third parties it is disclosed, and that it is accurate. To exercise this right please contact the Data Protection Officer at NRW.
- N7. We have your permission to store, copy, use, and release or publish any biodiversity records associated with the issue of this licence. Where our policy on public access to data states that the information is sensitive, publication and access will be restricted in accordance with both the Environmental Information Regulations (2004) and our guidance on access to data on sensitive biodiversity features. We may share the biodiversity records supplied with conservation organisations selected by us. Where our policy on public access to data states that the information is sensitive any such release will be under restrictive licence conditions in accordance with our guidance on access to data on sensitive biodiversity features. Please note that an inadequate return will prejudice future licence applications.
- N8. Biodiversity records associated with the issue of this licence must be as reliable and accurate possible and collected with all necessary permissions.

- N9. We acknowledge that biological records collected in relation to this licence, unless collected under a contract (with alternate provisions relating to Intellectual Property Rights) for us or a Third Party, remain the intellectual property of the licence holder. In all cases we will seek to acknowledge intellectual property and not use any biological records collected under licence beyond the purposes stated above.
- N10. Any work undertaken must take account of biosecurity risks, and measures must be put in place to ensure that you don't introduce or spread invasive non-native species (INNS), pests or disease. This [biosecurity risk assessment](#) should help you to understand and mitigate the risks on your site, and those posed by your activities.

Information and data on INNS and biosecurity can be found on the [GBNNS website](#). You can access information about the location of invasive non-native species (INNS) by using the [NBN Atlas Wales INNS Portal](#) (a [guide](#) on how to use the portal is available).

Information and data on plant and tree specific pests and diseases, and biosecurity is available on [our website](#), the [Defra website](#) or at [Forest Research](#).

Free eLearning is available from the [GBNNS](#), [University of Leeds](#), and [Forestry Commission](#).

Amphibian workers should read the [ARG-UK advice note 4: amphibian disease precautions – a guide for UK field workers](#).

You must ensure that all equipment (vehicles, tools, boots etc) that come to site, arrive clean, and are cleaned again before leaving site – this applies to all sites, not just those where an invasive non-native species (INNS), pest or disease has been previously identified. High risk sites should be surveyed / visited last during any programme of work.

Ensure you follow the [Check Clean Dry](#) or [Keep it Clean](#) principles.

Check your equipment, clothing and boots and remove any plant or animal 'hitchhikers'.

Clean equipment, clothing and boots thoroughly, remove all mud, leaves and plant debris. If it is not possible to clean on site, securely bag items and clean at a suitable location where risk of transfer of diseases is minimised. Wash vehicle tyres and wheel arches if muddy, but park on hard standing if possible.

Dry thoroughly any equipment or PPE that has been in freshwater or the marine environment; some INNS can live on damp items for weeks.

You will need to use disinfectant if you are accessing farmland with stock; or coming into contact with known pathogens; or moving between medium / high risk sites in the same day; or you have no ability to **effectively** dry (>48hrs) equipment or during a notifiable disease outbreak situation as notified by Welsh Government. Information on disinfectants can be found on the following websites: for [tree disease](#); for [amphibians](#); for [agricultural](#); and for [fisheries](#).

If you need any further help, please feel free to contact our [INNS and Biosecurity](#) team or our [Tree Health](#) team.



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

Appendix 3 – Vessel Details



VAN DEN HERIK
SLIEDRECHT

Seagoing crane-/hopper barge

'Prins 2'



Main data

Registration letter	RN 6412
Registration no.	17808 Z Rott 1988
IMO	7000231
Call sign	HO8081
Ensign	Panama
Year of Construction	1969
Yard	J. Oelkers K.G. - Hamburg
Tonnage	769 GT / 230 NT
Netto weight	Ca. 1.000 ton
Classification	DNV
Working area	20 mi. Coastal waters

Equipment

Spuds	Two telescopic spuds
Length spuds	Max. 24 m
Anchor	Yes
Control system anchor	Mechanically
Communication	Marine Telephone
Accommodation	3 pers.
Positioning system	Radar/ RTK (D)GPS
Watertank	16.000 L
Fuel tank	40.000 L
Discharge system	Hopper barge with bottom doors
Bottom doors	2x 14 pieces

Dimensions

	Sea	Inland
Length over all		65,02 m
Breadth		11,02 m
Airdraft		8,50 m
Light draught		1,825 m
Laden draught	2,989 m	3,18 m

Installed power

Total Installed power	1752,00 kW
Main engine	2* 480,00 kW
Bow thruster	75,00 kW
Generator	166,00 kW
Grab crane	551,00 kW

Capacity

	Sea	Inland
Deadweight capacity	1.046 T	1.130 T
Hopper capacity		650,00 m³
Length hopper on top		48,00 m
Breadth hopper on top		7,50 m
Breadth hopper at bottom		2,50 m

Grab crane PLM 2020

Boom length	32 m
Lifting capacity	20 ton - 20 m
Bucket capacity (sand)	8.0 m³ 7.000 kg
Bucket capacity (dredging)	7.0 m³ 7.500 kg
Bucket capacity (clamshell)	8.0 m³ 7.300 kg
Bucket (orange peel)	4.5 m³ 10.500 kg

Sailing speed

Speed loaded	6,0 kn
Speed empty	7,5 kn

Special details

Dumping facilities	Computer-controlled dosing system
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Self-propelled hopper barge

Prins 3



Main data

Registration letter	RN 6411
Registration no.	17809 Z Rott 1988
ENI	02717809
IMO	7018501
Call sign	HO6970
Ensign	Panama
Year of Construction	1969
Yard	H. Grube - Hamburg
Gross Tonnage	769 (GT)
Classification	Germanischer Lloyd
Working area	20 Mi. Coastal waters

Equipment

Spuds	-
Length spuds	-
Communication	Marine Telephone
Accommodation	3 pers.
Positioning system	Radar/ RTK (D)GPS
Fuel tank	40.000 L
Discharge system	Hopper barge with bottom doors
Bottom doors	2x 14 (pcs)

Dimensions

Length over all	65,02 (m)
Breadth	11,02 (m)
Airdraft	8,50 (m)
Light draught	1,28 (m)
Laden draught	3,45 (m)

Installed power

Total Installed power	1122,00 (kW)
Main engine	2* 473,50 (kW)
Bow thruster	75,00 (kW)
Generator	100,00 (kW)

Capacity

Deadweight capacity	976,006 (ton)
Hopper capacity	885,200 (m³)
Length hopper	48,00 (m)
Breadth hopper on top	7,50 (m)
Breadth hopper at bottom	2,50 (m)

Special details

Dumping facilities	Computer-controlled dosing system
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Sailing speed

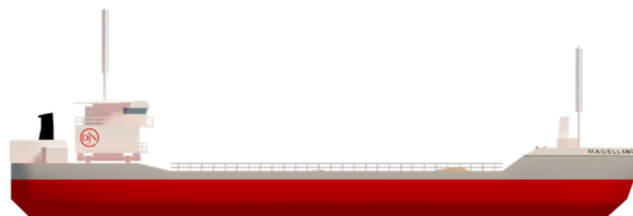
Speed loaded	6,00 kn
Speed empty	7,50 kn



Magellano 1800.

JANDENUL.COM

Magellano 1800.



Split Hopper Barge

Hopper capacity	2,000 m³
Deadweight	3,460 t
Length o.a.	80.0 m
Breadth	14.5 m
Draught loaded	4.5 m
Propulsion power	2 x 675 kW
Bow thruster power	145 kW
Speed	10.1 kn
Accommodation	8
Built in	1979





Verrazzano 1800.

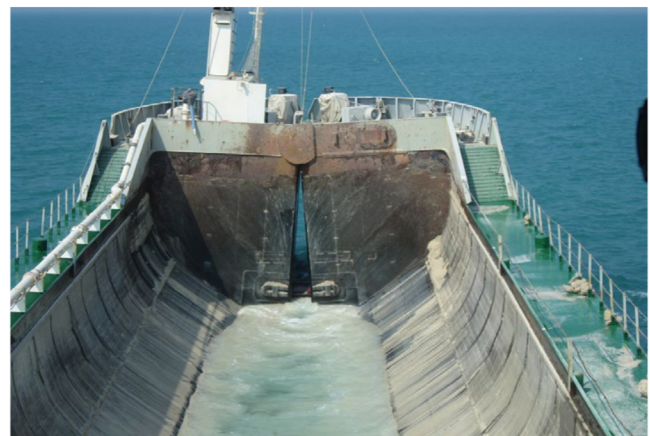
JANDENUL.COM

Verrazzano 1800.



Split Hopper Barge

Hopper capacity	2,000 m³
Deadweight	3,460 t
Length o.a.	80.0 m
Breadth	14.5 m
Draught loaded	4.5 m
Propulsion power	2 x 675 kW
Bow thruster power	145 kW
Speed	10.1 kn
Accommodation	8
Built in	1979





Appendix 4 – Vessel specific risk assessments



		Project Name: Dredging Port of Milford Haven Employer: Port of Milford Haven Hopper Barges - Prins 3/ Verrazzano/ Magellano Biosecurity Risk Assessment																	
Risk ID	Risk Owner	Activity / Aspect	Hazard	Unwanted Event	Cause	Who is at Risk	BIOSECURITY RISK ASSESSMENT				Additional Control Measures	REVISED RESIDUAL RISK RATING							
							Likelihood (P)	Impact (S)	Risk Rating (P x S)			Likelihood (P)	Impact (S)	Risk Rating (P x S)					
									Score	Level				Score	Level				
1	2	3	4	5	6	7	8				9	10							
001 Prins3 Verrazzano Magellano	VDH	Movement of a vessel from one port to another in relation to maintenance dredging activities.	Marine Invasive Non Native Species	Spread species, restricted navigation, block waterways, dug up properties, additional costs to manage waterways, Habitat loss	Inadequate anti-bulging of vessel, inadequate biosecurity measures related to the cleaning/flushing of vessel and bottom doors when moving from one job to the other.	Prins 3, Navigation/waterways, recreational facilities/habitat biodiversity, ecosystem, fisheries, human health	3	3	9	MEDIUM	Regular TBTF free anti-bulging, when moving from one job to the other bottom doors are flushed, inspected and cleaned.	2	2	4	LOW				
002 Prins3 Verrazzano Magellano	VDH	Transport of dredged material from VPOT and RWE to LU 169 Disposal Site	Marine Invasive Non Native Species	Spread species into the disposal site	Direct translocation of MINS from the RWE and VPOT to LU169	Prins 3, and mainly the disposal site LU 169	2	2	4	LOW	Using dredging and positioning computer program to not over dredge, insure bottom doors are completely dosing up. Desk study the impact of previous maintenance dredging activities on LU 169 which apparently showing no impact	2	2	4	LOW				
Please note that none of the vessels have no ballast tanks																			



MILFORD HAVEN PORT AUTHORITY
Generic Biosecurity Plan for 2022-2031 Strategic Dredging
Document No. MHPA AA. 25/07/2022.

Appendix 5 – Vessel Antifouling details



INTERNATIONAL ANTI-FOULING SYSTEM CERTIFICATE

This certificate shall be supplemented by a Record of Anti-Fouling Systems
Issued under the
International Convention on the Control Harmful Anti-Fouling Systems on ships
under the authority of the Government of

THE REPUBLIC OF PANAMA

by: **PANAMA CLASSIFICATION BUREAU**

When a Certificate has been previously issued, this Certificate replaces the certificate dated: 27 NOVEMBER 2015

PARTICULARS OF SHIP¹

Name of ship	<u>PRINS 2</u>
Distinctive number or letters	<u>HO-8081</u>
Port of Registry	<u>PANAMA</u>
Gross Tonnage	<u>769</u>
IMO Number ²	<u>7000231</u>

An Anti-fouling System controlled under Annex 1 has not been applied during or after construction of this ship	☒
An anti-fouling system controlled under Annex 1 has been applied on this ship previously, but has been removed by _____ on _____ (date)	☐
An Anti-fouling system controlled under Annex 1 has been applied on this ship previously, but has been covered with a sealer coat applied by _____ on _____ (date)	☐
An Anti-Fouling system controlled under Annex 1 was applied on this ship prior to _____ (date) ³ but must be removed or covered with a sealer coat prior to _____ (date) ⁴	☐

THIS IS TO CERTIFY:

1. The ship has been surveyed in accordance with regulation 1 of Annex 4 to the Convention; and
2. The survey shows that the anti-fouling system on the ship complies with the applicable requirements of Annex 1 to the Convention.

Completion date of the survey on which this certificate is based

01 FEBRUARY 2021

(dd/mm/yyyy)

Issued at

PANAMA, REPUBLIC OF PANAMA

(Place of issue of certificate)

on

01 OCTOBER 2021

(Date of Issue)



PCB
CLASS
CAPT. MICHELLE MENDOZA

Name and Signature of authorized official issuing the certificate
Provisional Certificate No. PCB-21/01-AUG-001
Full Term Certificate No. PCB-010121027R
FTWI-26-AFS-FT Ed. 5 Rev. 0 (11.19)



¹ Alternatively, the particulars of the ship may be placed horizontally in boxes.

² In accordance with IMO ship Identification Number Scheme adopted by the Organization by resolution A.600(15).

³ Date of entry into force of the control measure.

⁴ Date of expiration of any implementation period specified in article 4(2) or Annex 1.

RECORD OF ANTI-FOULING SYSTEMS

This record shall be permanently attached to the International Anti-Fouling System Certificate.

1. Particulars of the ship

Name of ship PRINS 2
Distinctive number or letters HO-8081
IMO Number 7000231

2. Details of anti-fouling system(s) applied

2.1 Type(s) anti-fouling system(s) used Sigma Biguard Primer vinyl Vikote 12 and Biguard vinyl Vikote 42
2.2 Date(s) of application of anti-fouling system(s) 24 January 2021
2.3 Name(s) of company(ies) and facility(ies) / location(s) where applied Kooiman Shipyard, Zwijndrecht, NL
2.4 Name(s) of anti-fouling system manufacturer(s) PPG Industries - Sigma
2.5 Name(s) and colour(s) of anti-fouling system(s) Sigma Biguard Primer Vinyl Vikote 12 and Vikote 42 - Black
2.6 Active ingredient(s) and their Chemical Abstracts Service Registry Number(s) (CAS number (s))

Anticorrosive paint without active ingredients

1st layer - Sigma Biguard Primer vinyl Vikote 12 / 2nd layer - Sigma Biguard vinyl Vikote 42

2.7 Type(s) of sealer coat, if applicable Not applicable
2.8 Name(s) and colour(s) of sealer coat applied, if applicable Not applicable
2.9 Date of application of sealer coat Not applicable

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at PANAMA, REPUBLIC OF PANAMA

(Place of issue of certificate)

on

01 OCTOBER 2021

(Date of issue)

PCB
CLASS
CAPT. MICHELLE MENDOZA

Name and Signature of the duly authorized official issuing the certificate

Endorsement of the Record

THIS IS TO CERTIFY that a survey required in accordance with regulation 1(1) (b) of annex 4 to the Convention found that the ship was in compliance with the Convention.

1. Details of anti-fouling System(s) applied

1.1 Type(s) anti-fouling system(s) used

1.2 Date(s) of application of anti-fouling system(s)

1.3 Name(s) of company(ies) and facility(ies) / location(s) where applied

1.4 Name (s) of anti-fouling system(s) manufacturer(s)

1.5 Name(s) and colour(s) of anti-fouling system(s)

1.6 Active ingredient(s) and their Chemical Abstracts Service Registry Number(s) (CAS number (s))

1.7 Type(s) of sealer coat, if applicable

1.8 Name(s) and colour(s) of sealer coat applied, if applicable

1.9 Date of application of sealer coat

Issued at

(Place of issue of certificate)

on

(Date of issue)

Name and Signature of the duly authorized official issuing the certificate