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Ireland

DUMPING AT SEA PERMIT

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| Permit Register Number: | S0009-03 |
| Permit Holder: | Shannon Foynes Port Company Mill House Foynes County Limerick |
| Location of Loading: | Ted Russell Dock and approach channel, Limerick and Foynes Harbour |
| Location of Dumping: | Shannon Estuary |



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DUMPING AT SEA ACT 1996 AS AMENDED

DUMPING AT SEA PERMIT

Decision of the Agency, under Section 5(1) of the
Dumping at Sea Act 1996 as amended

Reference Number: S0009-03

The Agency in exercise of the powers conferred on it by the Dumping at Sea Act 1996 as amended, for the reasons hereinafter set out, hereby grants this Dumping at Sea permit to Shannon Foynes Port Company subject to conditions, as set out in the schedule attached hereto.


The permit authorises the loading and dumping at sea of dredged material from Ted Russell Dock and approach channel, Limerick and Foynes Harbour subject to conditions.

A copy of the Decision is attached.

Loading and dumping at sea of a substance or material, in accordance with the Dumping at Sea Act 1996 as amended

GIVEN under the Seal of the Agency this 21st day of December, 2020

PRESENT when the seal of the Agency
was affixed hereto:


Tara Gillen, Authorised Person



INTRODUCTION

This introduction is not part of the permit and does not purport to be a legal interpretation of the permit.

This permit is for the loading of dredged material from maintenance dredging at Ted Russell Dock and approaches, Limerick and at Foynes Harbour and the dumping of the dredged material in the Shannon Estuary. Chemical analysis has confirmed that the material in question is suitable for dumping at sea. Under this permit, a maximum of 260,000 tonnes (wet weight) of dredged material shall be loaded and dumped annually by trailer suction hopper dredger supported by grab dredger, up to a total maximum of 1,820,000 tonnes over seven years, 2020 – 2026. A limited quantity of material (16,000 tonnes) is also permitted to be plough dredged annually, up to total maximum of 112,000 tonnes over seven years. The permit holder is required to manage the permitted activities to ensure the protection of the marine environment and to submit reports on the loading and dumping activities, as well as sediment and marine mammal monitoring results, to the Agency.

The permit sets out in detail the conditions under which Shannon Foynes Port Company will carry out loading and dumping at sea.

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Glossary of Terms

All terms in this permit should be interpreted in accordance with the definitions in the Dumping at Sea Act 1996 as amended, unless otherwise defined in the glossary.

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| Accident | For the purpose of this permit an accident means an unplanned event that may result in pollution. |
| AER | Annual Environmental Report. |
| Approval | Approval in writing. |
| Annually | All or part of a period of twelve consecutive months. |
| Application | The application by the permit holder for this permit. |
| Aquaculture | The rearing or cultivation of aquatic organisms using techniques designed to increase the production of those organisms beyond the natural capacity of the environment and where the organisms remain the property of one or more natural or legal persons throughout the rearing or culture stages, up to and including harvesting. |
| Attachment | Any reference to Attachments in this permit refers to attachments submitted as part of this permit application. |
| Biannually | At approximately six – monthly intervals. |
| Biennially | Once every two years. |
| Campaign | A planned period of sustained loading and/or dumping activity. |
| CEN | Comité Européen De Normalisation – European Committee for Standardisation. |
| Chart | Any reference to a chart or chart number means a chart or chart number contained in the application, unless otherwise specified in this permit. |
| Closed Period | Period of time when loading and/or dumping at sea is prohibited in order to protect designated species or sites. |
| Competent Laboratory | A testing facility meeting the general management and technical requirements of EN ISO/IEC-17025 standard, or other equivalent standards accepted at international level and utilising methods of analysis, including laboratory, field, and on-line methods, which are validated and documented in accordance with the above standard(s) for the specific tests. |
| Day | Any 24 hour period. |
| Daytime | 0800 hrs to 1900 hrs. |
| DBT | Dibutyltin. |
| Documentation | Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this permit. |

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| Dumping | (a) any deliberate disposal in the maritime area (including side-cast dredging, plough dredging, water injection dredging and other such dredging techniques) of a substance or material from or in conjunction with a vessel or aircraft or offshore installation, (b) any deliberate disposal in the maritime area of vessels, aircraft or offshore installations. |
| Drawing | Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this permit. |
| Ebbing Tide | The period between high tide and low tide during which water flows away from the shore. |
| Evening Time | 1900 hrs to 2200 hrs. |
| Exclusive Economic Zone | The outer limit of the exclusive economic zone is the line every point of which lies at a distance of 200 nautical miles from the nearest point of the baseline. |
| Fortnightly | A minimum of 24 times per year, at approximately two week intervals. |
| Harbour Authority | As defined in Section 1 of the Dumping at Sea Act 1996 as amended. |
| HCB | Hexachlorobenzene. |
| HCH | Hexachlorocyclohexane. |
| Incident | The following shall constitute an incident for the purposes of this permit: (i) an emergency; (ii) any loading or dumping at sea activity which does not comply with the requirements of this permit; (iii) any indication that pollution has, or may have, taken place. |
| Inland Waters | All sea areas which lie on the landward side of the baseline of the territorial seas. |
| Maintain | Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately. |
| Map | Any reference to a map or map number means a map or map number contained in the application, unless otherwise specified in this permit. |
| Master | The person having the command or charge of the vessel. |
| Material Unsuitable for Dumping | Sediment that is chemically contaminated such that it does not meet the assessment criteria to be classified as Class 1 (i.e. contaminant concentrations are below lower action levels), in accordance with <i>Guidelines for the Assessment of Dredge Material for Disposal in Irish Water</i> (Marine Institute, 2006) and <i>Addendum to 2006 Guidelines for the Assessment of Dredged material in Irish Waters</i> (Marine Institute, 2019), unless otherwise authorised by the Agency. |
| Monthly | A minimum of 12 times per year, at intervals of approximately one month. |
| Monitored Zone | Area which must be monitored for marine mammals by a Marine Mammal Observer. |

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| Neap Tide | The tide with the smallest tidal range (i.e. the lowest high water and the highest low water), occurring twice monthly at the middle of the moon's first and last quarters. |
| Night-time | 2200 hrs to 0800 hrs. |
| Noise-Sensitive Location (NSL) | Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels. |
| OSPAR | Convention for the Protection of the Marine Environment of the North-East Atlantic. |
| PAH | Polycyclic aromatic hydrocarbons. |
| PCB | Polychlorinated biphenyls. |
| Permit Holder | Shannon Foynes Port Company, Mill House, Foynes, County Limerick. |
| Pollution | The introduction by man, directly or indirectly, of substances or energy into the maritime area which results, or is likely to result, in hazards to human health, harm to living resources and marine ecosystems, damage to amenities or interference with other legitimate uses of the sea. |
| Position | Latitude and longitude coordinates in degrees and decimal minutes, based on the WGS 84 datum. |
| Quarterly | All or part of a period of three consecutive months beginning on the first day of January, April, July or October. |
| SAC | Special Area of Conservation designated under the <i>Habitats Directive</i> , Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. |
| Sample(s) | Unless the context of this permit indicates to the contrary, the term sample(s) shall include measurements taken by electronic instruments. |
| Solid Waste | Any persistent, manufactured or processed solid material or items discarded, disposed of or abandoned in the marine and coastal environment, as defined in the OSPAR Guidelines for the Management of Dredged Material at Sea. |
| SOP | Standard operating procedure. |
| SPA | Special Protection Area designated under the <i>Birds Directive</i> , Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds. |
| Standard Method | A National, European or internationally recognised procedure (e.g., I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency. |
| TBT | Tributyltin. |
| The Agency | Environmental Protection Agency. |

The Maritime Area

Comprises

- (i) the inland waters and territorial seas of the State, and the seabed and subsoil beneath them,
- (ii) any area for the time being standing designated by order under Section 2 of the Continental Shelf Act 1968 for the purposes of that Act, and the waters above it, and
- (iii) the exclusive economic zone of the State.

Triennially

Once every three years.



Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this permit, the loading and dumping activities will comply with and will not contravene any of the requirements of Section 5 of the Dumping at Sea Act 1996 as amended.

The Agency also considers that the activities will not adversely affect the integrity of any European Site, and has decided to impose conditions for the purposes of ensuring they do not do so. It has determined that the activities, if managed, operated and controlled in accordance with the permit, will not have any adverse effect on the integrity of any of those sites.

The Agency has accordingly decided to grant a permit to Shannon Foynes Port Company to carry on the activities listed in *Part I Schedule of Activities Permitted*, subject to the conditions set out in *Part III Conditions*.

In reaching this decision the Agency has considered the documentation relating to: the application, Register Number: S0009-03 and the supporting documentation received from the applicant; the comments and observations received; the Inspector's Report dated 9th December 2020 and has carried out an Appropriate Assessment of the likely significant effects of the permitted activities on European Sites.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at Lower River Shannon SAC (Site Code: 002165) and River Shannon and River Fergus Estuaries SPA (Site Code: 004077).

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was required. This determination is based on the unconfined nature and location of the proposed activities within the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA. It is considered that there is potential for the loading and dumping activities to give rise to habitat loss and/or deterioration, including water quality and noise disturbance impacts, which could have potential significant effects on the qualifying interests of these European Sites. It was noted that a Natura Impact Statement (NIS), dated May 2019 was submitted as part of the permit application.

The Agency has completed the Appropriate Assessment of potential impacts on these sites and has made certain, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA, having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this permit and the conditions attached hereto for the following reasons:

- The material to be dumped is predominantly clean silt, sand and gravel which has been deemed suitable for dumping at sea.
- Benthic surveying has shown the loading areas to be species poor. Temporary loss of infaunal habitat will occur but recolonisation will quickly occur and faunal communities will not be permanently impacted.
- Hydrodynamic modelling predicts temporary plumes associated with dumping, and to a significantly lesser extent loading, activities before widespread dispersion with tidal currents. Due to the silty nature of the dredged material minimal sedimentation will occur and no significant water quality or associated wetland habitat deterioration is likely.
- A marine mammal observer shall be employed to monitor, record and protect marine mammals, including cetaceans, pinnipeds and otter, in accordance with DAHG (2014) 'Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters' for the duration of the loading and dumping activities at Foynes (Condition 4.7).
- Loading and dumping activities, including plough dredging, shall be prohibited at Ted Russell

Dock and Limerick Approach Channel, during the Closed Period, 1st January to 30th June (Condition 3.4) to protect migratory fish, including Atlantic salmon and lamprey species, with the exception of emergency plough dredging for the purpose of navigational safety (Condition 3.5).

- To minimise the excessive accumulation of dumped material at the shallow dumping sites A and B, every alternate load from Limerick shall be dumped at Dumping Sites A, B and C (Foynes) in rotation (Condition 3.10) and dumping at Dumping Sites A and B shall be conducted on ebb tides only (Condition 3.11).
- Plough dredging shall be conducted during daytime and/or evening time hours on ebb tides only (Conditions 3.6 and 3.7) to ensure maximum dispersal of the material down-estuary and to provide windows of low turbidity for migrating fish.
- Trailing suction hopper dredger pumps shall be switched off while the dredger is manoeuvring into place and the drag head is off the bottom (Condition 3.9), to minimise the risk of fish entrainment.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites at Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA.

Part I Schedule of Activities Permitted

In pursuance of the powers conferred on it by the Dumping at Sea Act 1996 as amended, the Environmental Protection Agency (the Agency), under Section 5 of the said Act, grants this Dumping at Sea Permit to Shannon Foynes Port Company, Mill House, Foynes, County Limerick. The permit authorises the loading and dumping at sea activities, subject to conditions listed in Part III, with the reasons therefor and the associated schedules attached thereto.

Part II Schedule of Activities Refused

None of the proposed activities as set out in the licence application have been refused.



Part III Conditions

Condition 1. Scope

1.1 Statutory Obligations

This permit is for the purposes of permitting under the Dumping at Sea Act 1996 as amended, only and nothing in this permit shall be construed as negating the permit holder's statutory obligations or requirements under any other enactments or regulations.

1.2 The material or substance to which this permit relates shall be dredged material from that part of the maritime area specified in *Schedule A: Limitations* of this permit.

1.3 For the purposes of this permit, the location of the loading areas A, B, C and D authorised by this permit are in those parts of the maritime area bounded by the coordinates specified in *Section 3, SFPC Maintenance Dredging Dumping at Sea Permit, Additional Information Rev A, received 30 July 2020* and shown as areas hatched in blue, red and green on Drawing Numbers -0001 Rev. A, -0002, -0003 and -0004 in *Appendix 1: Supporting Drawings and Appendix 1: Supporting Drawings Revision B* of the application. Any reference in this permit to "loading areas" shall mean the areas thus specified. The permitted loading activity shall be carried on only within the areas specified.

1.4 For the purposes of this permit, the location of the dumping sites authorised by this permit is in those parts of the maritime area bounded by the coordinates specified in *Schedule A: Limitations* of this permit and shown as areas cross-hatched in blue, red and green on Drawing Numbers -0005, -0006, and -0007 in *Appendix 1: Supporting Drawings* of the application. Any reference in this permit to "dumping site" shall mean the areas thus specified. The permitted dumping activities shall be carried on only within the areas specified.

1.5 For the purposes of this permit, the location of the plough dredging areas authorised by this permit is in those parts of the maritime area bounded by the coordinates specified in *Schedule A: Limitations* of this permit and shown as areas hatched in blue on Drawing Number -0001 Rev. A and outlined in red on Drawing Numbers -0010 Rev. A and -0011 Rev. A in *Appendix 1: Supporting Drawings Revision B* of the application. The permitted plough dredging activities shall be carried on only within the areas specified.

1.6 The permit holder shall carry on the permitted activities in accordance with the limitations set out in *Schedule A: Limitations* of this permit.

1.7 Loading and dumping at sea shall be controlled and operated as set out in the permit. All programmes required to be carried out under the terms of this permit become part of this permit.

1.8 No change to the loading and dumping activities authorised by this permit shall be carried out or commenced without the prior approval of the Agency.

Reason: To clarify the scope of this permit.

Condition 2. Management of the Loading and Dumping at Sea Activities

2.1 The permit holder shall ensure that all or any of the following:

- Litter
- man-made debris
- odour

associated with, or arising from, the permitted activities do not result in an impairment of, or an interference with, amenities or the environment.

- 2.2 The permit holder shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience as required and shall be aware of the requirements of this permit.
- 2.3 The permit holder shall ensure that a nominated, suitably qualified and experienced person is present at all times when activities covered by this permit are ongoing.
- 2.4 The permit holder shall notify the Agency of the intended date of commencement of the loading and dumping activities, at least fourteen calendar days in advance of commencement, by webform or by such other means as may be specified by the Agency, unless otherwise agreed by the Agency.
- 2.5 **Documentation**
The permit holder shall issue a copy of this permit to all relevant personnel whose duties relate to any condition of this permit and provide the information, instruction, training and supervision necessary to ensure compliance with the conditions of this permit.
- 2.6 **Corrective Action and Preventative Action**
- 2.6.1 The permit holder shall establish, maintain and implement procedures to ensure that corrective action is taken should the specified requirements of this permit not be fulfilled. The responsibility and authority for persons initiating further investigation and corrective action in the event of a reported non-conformity with this permit shall be defined.
- 2.6.2 Where a breach of one or more of the conditions of this permit occurs, the permit holder shall without delay take measures to restore compliance with the conditions of this permit in the shortest possible time and initiate any feasible preventative actions to prevent recurrence of the breach.
- 2.6.3 All corrective and preventative actions shall be documented.
- 2.7 **Public Awareness and Communications Programme**
- 2.7.1 The permit holder shall, within one month of the date of grant of this permit, establish, maintain and implement a Public Awareness and Communications Programme to ensure members of the public can obtain information at reasonable times, concerning the environmental performance of the permitted activities.
- 2.7.2 As part of this programme, the permit holder shall inform Bord Iascaigh Mhara of the intended date of commencement of loading and dumping activities at Foynes in advance of campaigns to ensure that local aquaculture operators are aware of forthcoming campaigns and are advised to avoid laying new seed or harvesting shellfish during the campaigns as necessary.
- 2.8 **Marine Litter**
- 2.8.1 All reasonable and practicable efforts should be made to remove any solid waste collected during the loading and dumping activities and returned to land.
- 2.8.2 All reasonable and practicable efforts should be made to remove floating material collected during the loading and dumping activities and returned to land.
- 2.8.3 The permit holder shall ensure that material dredged using a trailing suction hopper dredger is passed through grid screens no larger than 30cm to minimise the amount of man-made materials disposed of at sea. Any solid waste must be separated from the dredged material and disposed or recovered on shore.
- 2.8.4 Disposal or recovery of solid waste shall only take place in accordance with the conditions of this permit and in accordance with the appropriate National and European legislation and protocols.
- 2.8.5 Solid waste sent for disposal or recovery shall be transported only by an authorised waste contractor. The solid waste shall be transported from the site of the activity to the site of the recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.

Reason: *To make provision for management of the loading and dumping at sea activities on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the marine environment.*

Condition 3. Loading and Dumping at Sea Activities

- 3.1 All loading and dumping activities shall be completed by 31st December, 2026.
- 3.2 No material shall be dumped at sea which has been categorised as unsuitable for disposal.
- 3.3 Dumping shall be effected by release of the material through the hull of the vessel while the vessel is in motion or by plough dredging.
- 3.4 Loading and dumping activities, including plough dredging, shall be prohibited at Ted Russell Dock and Limerick Approach Channel, during the Closed Period specified in *Schedule A.4 Closed period* of this permit.
- 3.5 Plough dredging that is urgently required for the purpose of navigational safety shall only be permitted during the Closed Period specified in Condition 3.4 with the prior approval of the Agency.
- 3.6 Plough dredging shall be conducted during daytime and/or evening time hours only.
- 3.7 Plough dredging shall be conducted on ebb tides only.
- 3.8 Loading shall be carried out by trailing suction hopper dredger or by grab dredger, unless otherwise agreed by the Agency in accordance with Condition 1.8.
- 3.9 Trailing suction hopper dredger pumps shall be switched off while the dredger is manoeuvring into place and the drag head is off the bottom.
- 3.10 Every alternate load of material loaded from Ted Russell Dock and Limerick Approach Channel shall be dumped at Dumping Sites A, B and C, in rotation.
- 3.11 Dumping at Dumping Sites A and B shall be conducted on ebb tides only.
- 3.12 The permit holder shall limit the release of suspended solids into the water column during loading and on voyages to and from the dumping sites.
- 3.13 Dumping activities shall be conducted to ensure a uniform spread of material throughout the dumping sites.
- 3.14 Information relating to the activities shall be recorded during each dumping voyage to the satisfaction of the Agency and shall as a minimum contain details of the following:
 - (i) The name of the vessel;
 - (ii) The source of the substance or material;
 - (iii) The date, time, location and position at which the voyage for the purposes of dumping began;
 - (iv) The date, time and position at which the loading began;
 - (v) The date, time and position at which the loading ended;
 - (vi) The date, time and position at which dumping began;
 - (vii) The date, time and position at which dumping ended;
 - (viii) The quantity, stated in metric tonnes, of the substance or material dumped and in the case of plough dredging, quantity to be calculated at the end of a campaign using bathymetric surveys;
 - (ix) The date, time and position at which the vessel completed the voyage for the purpose of dumping; and
 - (x) Automatically logged vessel track record data.
- 3.15 Prior to the commencement of the permitted activities, the permit holder shall consult with the Marine Survey Office of the Department of Transport, Tourism and Sport to ensure that all vessels used in connection with the loading and dumping activities specified in this permit meet the requirements of the Marine Survey Office, including that they are licensed as a passenger

- boat. The permit holder shall ensure that the vessels used in connection with this permit are fully certified for the entire period of loading and dumping activities specified in this permit.
- 3.16 The permit holder shall permit authorised officers and marine mammal observers to be on board the vessel. They shall permit and facilitate the carrying out by the authorised officers of their functions under the Dumping at Sea Act 1996 as amended, and shall comply with the provisions of that Act in relation to the authorised officers and those functions.
- 3.17 The permit holder shall continue to investigate alternative re-use options for the dredged material that is the subject of this permit. A report on this investigation shall be submitted as part of the AER.

Reason: *To provide for appropriate controls on loading and dumping at sea activities to ensure the protection of the marine environment.*

Condition 4. Control and Monitoring

- 4.1 The permit holder shall carry out such sampling, analyses, measurements, examinations maintenance and calibrations as set out below and in accordance with *Schedule C: Monitoring*, of this permit.
- 4.1.1 Analyses and measurements shall be undertaken by competent staff in accordance with documented operating procedures.
- 4.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 4.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 4.1.4 Analysis for compliance purposes, including any sub-contracted analysis, shall be done by a competent laboratory.
- 4.2 The permit holder shall ensure that:
- (i) sampling and analysis for all parameters listed in the schedules to this permit; and
- (ii) any reference measurements for the calibration of automated measurement systems shall be carried out by an appropriate Standard Method.
- 4.3 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this permit, may be amended with the approval of the Agency following evaluation of test results.
- 4.4 Bathymetry
- 4.4.1 The permit holder shall carry out pre-dredge and post-dredge bathymetric surveys of the Loading Areas in accordance with *Schedule C.1.1 Monitoring at Loading Areas* of this permit.
- 4.4.2 The permit holder shall carry out pre-dumping and post-dumping bathymetric surveys of the Dumping Sites in accordance with *Schedule C.2 Monitoring at Dumping Sites* of this permit.
- 4.4.3 The permit holder shall carry out pre-dredge and post-dredge bathymetric surveys of the Plough Dredging Areas in accordance with *Schedule C.3 Monitoring at Plough Dredging Areas* of this permit.
- 4.5 Sediment Chemistry and Grain Size Analysis
- 4.5.1 The permit holder shall carry out chemical and granulometric analysis of sediments within the Loading Areas and Plough Dredging Areas in 2021 and 2024 in accordance with *Schedule C.1.2 Sediment Monitoring* of this permit. A report on this analysis shall be submitted to the Agency within 1 month of completion of the analysis.

- 4.5.2 Following submission of the results of the monitoring specified in Condition 4.5.1, loading and plough dredging activities may not proceed without the approval of the Agency.
- 4.6 Archaeology
- The permit holder shall immediately notify the Underwater Archaeology Unit, National Monuments Service, Department of Housing, Local Government and Heritage if any material of archaeological potential is encountered during the course of the permitted activities.
- 4.7 Marine Mammals
- 4.7.1 The permit holder shall appoint a Marine Mammal Observer who shall meet the monitoring and reporting requirements of the National Parks and Wildlife Service. Full reporting on Marine Mammal Observer operations and mitigation undertaken should be made to the Agency and offshore@chg.gov.ie within 1 month of completion of each campaign.
- 4.7.2 The permit holder shall implement the risk control and mitigation measures for marine mammals (including cetaceans, pinnipeds and otter) as specified in the application, including implementing a mitigation zone of 500 metres from the dredging vessel at loading areas C and D and *Dumping Site C*, unless otherwise agreed by the Agency.
- 4.7.3 The permit holder shall undertake a noise study at Foynes Harbour and *Dumping Site C* to quantify the source level, band width and attenuation rate of noise generated during loading and dumping activities in accordance with *Schedule C.4 Marine Mammal Monitoring* of this permit. Any recommendations for appropriate risk avoidance measures when dredging at night or in poor weather or visibility conditions shall be implemented during all subsequent campaigns at Foynes Harbour and *Dumping Site C*. A report on the findings of the noise study, including any recommendations arising, shall be submitted to the Agency as part of the AER.
- 4.7.4 The implementation of the risk control and mitigation measures for marine mammals shall be to the satisfaction of the Agency.
- 4.8 Where relevant ambient monitoring results are available from any other statutory body, including the Agency, the permit holder may submit those results to contribute to the fulfilment of the requirements of *Schedule C: Monitoring* of this permit.

Reason: *To provide for the protection of the marine environment by way of monitoring of the impacts associated with the loading and dumping at sea activities.*

Condition 5. Incident Prevention and Emergency Response

5.1 Incidents

In the event of an incident the permit holder shall immediately:

- (i) identify the date, time and place of the incident;
 - (ii) as soon as practicable notify the Agency, in a format prescribed, and other relevant authorities;
 - (iii) carry out an investigation to identify the nature, source and cause of the incident and any impact arising therefrom;
 - (iv) isolate the source of any such impact;
 - (v) evaluate the pollution, if any, caused by the incident; and
 - (vi) identify and execute measures to minimise the impact and the effects thereof.
- 5.2 The permit holder shall provide a report of the investigation into the incident to the Agency for its approval within one month of the incident occurring or as otherwise agreed by the Agency. The report shall include a proposal to:

- (i) identify and put in place measures to avoid recurrence of the incident; and
 - (ii) identify and put in place any other appropriate remedial actions.
- 5.3 The permit holder shall, in advance of the commencement of the activities, ensure that a documented Accident Prevention Procedure is in place that addresses hazards, particularly in relation to the prevention of accidents with a possible impact on the environment.
- 5.4 The permit holder shall, in advance of the commencement of the activities, ensure that a document Emergency Response Procedure is in place that addresses any emergency situation which may arise. This procedure shall include provision for minimising the effects of any emergency on the environment.

Reason: *To provide for the protection of the marine environment.*

Condition 6. Notification, Records and Reports

- 6.1 The permit holder shall notify the Agency by webform or by any other means as may be specified by the Agency as soon as practicable after the occurrence of any incident. The permit holder shall include as part of the notification, the date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any impacts.
- 6.2 In the case of any incident relating to any impact on water, the permit holder shall notify the Marine Institute, Sea Fisheries Protection Authority, Inland Fisheries Ireland, Bord Iascaigh Mhara and any other relevant authorities as soon as practicable after such an incident.
- 6.3 In the case of any incident relating to archaeology, marine mammals or migratory fish, the permit holder shall notify the National Monuments Service, National Parks and Wildlife Service, Marine Institute, Sea Fisheries Protection Authority and Inland Fisheries Ireland and any other relevant authorities as soon as practicable after such an incident.
- 6.4 The permit holder shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, and the effect on the marine environment, and avoid recurrence. The permit holder shall, as soon as practicable following incident notification, submit to the Agency the incident record.
- 6.5 The permit holder shall record all complaints related to the loading and dumping activities. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall be kept of the response made and any corrective action undertaken in the case of each complaint. This record shall be made available to the Agency upon request.
- 6.6 The permit holder shall as a minimum keep the following documents together and available for inspection by the Agency:
- (i) the permit(s) relating to the loading and dumping activities;
 - (ii) the previous years' AERs for the loading and dumping activities;
 - (iii) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this permit and any previous permits dating back at least three years;
 - (iv) all correspondence with the Agency;
 - (v) complaints register;
 - (vi) up to date drawings/plans showing the location of the loading areas, the dumping sites and plough dredging areas authorised by this permit;
 - (vii) marine positional log, and
 - (viii) any elements of the permit application and associated documentation referenced in this permit.

This documentation shall be available to the Agency for inspection at all reasonable times and shall be submitted to the Agency, as required, in such a format as may be requested, including electronic submittal of the information or a summary of such information.

- 6.7 The permit holder shall submit electronically to the Agency, by the 31st March of each year, an AER covering the previous calendar year. This report shall include as a minimum the information specified in *Schedule D: Annual Environmental Report* of this permit, and shall be prepared in accordance with any relevant guidelines issued by the Agency or as otherwise prescribed by the Agency.
- 6.8 A full record, which shall be open to inspection by authorised officer of the Agency at all times, shall be kept by the permit holder on matters relating to each load of the substance or material intended to be dumped. This record shall be maintained continually and shall as a minimum contain those details specified in Condition 3.14 of this permit. This information shall be submitted as required by and as may be prescribed by the Agency as part of the Annual Environmental Report and immediately on request by an authorised officer.
- 6.9 All reports shall be certified accurate and representative by the permit holder, manager or a nominated, suitably qualified and experienced deputy.
- 6.10 The permit holder shall notify the Agency in writing upon completion of the loading and dumping activities to which this permit relates.
- 6.11 The permit holder shall submit the reports, proposals and submissions required by this permit by the deadlines specified. The permit holder shall not be in compliance with the requirements of this condition unless it has submitted every report, proposal and submission, the deadline for which has passed.
- 6.12 The permit holder shall carry out every action required by the Agency, and arising out of such reports, proposals or submission, by such deadline as the Agency may specify. The permit holder shall not be in compliance with the requirements of this condition unless and until it has carried out every such action.

Reason: *To provide for the collection and reporting of adequate information on the loading and dumping at sea activities.*

Condition 7. Financial Charges

- 7.1 Agency Charges
- 7.1.1 The permit holder shall pay to the Agency a contribution or such sum, as the Agency from time to time determines having regard to variations in the extent of reporting, auditing, inspections, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activities as the Agency considers necessary for the performance of its functions under the Dumping at Sea Act 1996 as amended.
- 7.1.2 The cost of any other tests, sampling, analysis and monitoring which the Agency may require in relation to the loading and/or dumping of the substance or material the subject of this permit shall be borne by the permit holder. Furthermore, the cost of any tests, sampling, analysis and monitoring surveys carried out by an authorised officer or by or on behalf of the Agency in relation to the sampling of a substance or material the subject of this permit shall also be borne by the holder of the permit.
- 7.2 The Permit Holder shall indemnify the Agency and its authorised officers against all cost occurred by him as a result of a breach of any of the conditions of this permit.

Reason: *To provide for adequate financing for monitoring to protect the marine environment.*

SCHEDULE A: Limitations**A.1 Quantity of Material to be Dumped at Sea****Quantity of Dredged Material to be Loaded and Dumped at Sea**

| | Dumping Site | Maximum quantity to be dumped annually (tonnes, wet weight per annum) | Total maximum quantity to be dumped over 7 years (tonnes, wet weight) |
|-------------------------|----------------|---|---|
| Dredged material | Dumping Site A | 38,000 | 266,000 |
| | Dumping Site B | 38,000 | 266,000 |
| | Dumping Site C | 184,000 | 1,288,000 |
| | Total | 260,000 | 1,820,000 |

Quantity of Material to be Plough Dredged

| | Dumping Site | Maximum quantity to be dumped annually (tonnes, wet weight per annum) | Total maximum quantity to be dumped over 7 years (tonnes, wet weight) |
|-------------------------|-------------------------------|---|---|
| Dredged material | A. Ted Russell Dock, Limerick | 1,000 | 7,000 |
| | B. Limerick Approach Channel | 5,000 | 35,000 |
| | C. Foynes Harbour | 10,000 | 70,000 |
| | Total | 16,000 | 112,000 |

**A.2 Location of Dumping Sites****Dumping Site A**

| | Latitude | Longitude |
|-------|-----------|-----------|
| (i) | 52°40.54' | 8°44.40' |
| (ii) | 52°40.44' | 8°44.43' |
| (iii) | 52°40.35' | 8°43.80' |

Dumping Site B

| | Latitude | Longitude |
|-------|-----------|-----------|
| (i) | 52°40.67' | 8°51.14' |
| (ii) | 52°40.72' | 8°50.69' |
| (iii) | 52°40.57' | 8°51.11' |
| (iv) | 52°40.62' | 8°50.66' |

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Dumping Site C

| | Latitude | Longitude |
|-------|-----------|-----------|
| (i) | 52°37.17' | 9°08.33' |
| (ii) | 52°37.52' | 9°08.45' |
| (iii) | 52°37.44' | 9°08.29' |
| (iv) | 52°37.10' | 9°08.65' |

A.3 Location of Plough Dredging Areas**Plough Dredging Area A: Ted Russell Dock, Limerick**

| | Latitude | Longitude |
|-----|-------------|------------|
| A01 | 52° 39.602' | 8° 38.369' |
| A02 | 52° 39.546' | 8° 38.330' |
| A03 | 52° 39.446' | 8° 38.663' |
| A04 | 52° 39.473' | 8° 38.685' |
| A05 | 52° 39.493' | 8° 38.614' |
| A06 | 52° 39.499' | 8° 38.619' |
| A07 | 52° 39.500' | 8° 38.674' |
| A08 | 52° 39.511' | 8° 38.674' |
| A09 | 52° 39.511' | 8° 38.616' |
| A10 | 52° 39.559' | 8° 38.567' |

Plough Dredging Area B: Limerick Approach Channel

| | Latitude | Longitude |
|---|-------------|------------|
| A | 52° 39.498' | 8° 38.676' |
| B | 52° 39.498' | 8° 38.850' |
| C | 52° 39.528' | 8° 38.850' |
| D | 52° 39.522' | 8° 38.682' |

Plough Dredging Area C: Foynes Harbour

| | Latitude | Longitude |
|---|-------------|-----------|
| A | 52° 36.894' | 9° 5.934' |
| B | 52° 36.768' | 9° 6.354' |
| C | 52° 36.816' | 9° 6.624' |
| D | 52° 36.840' | 9° 6.624' |
| E | 52° 36.798' | 9° 6.354' |
| F | 52° 36.912' | 9° 5.952' |

A.4 Closed Period

| From | To | Applicable Areas | Reason for Closed Period |
|-------------------------|-----------------------|---|--|
| 1 st January | 30 th June | Loading Areas A and B Dumping Sites A and B Plough Dredging Areas A and B ^{Note 1} | Primarily for the protection of migratory fish, including Atlantic salmon and lamprey species. |

Note 1: With the exception of emergency plough dredging approved by the Agency in accordance with Condition 3.5 of this permit.



SCHEDULE B: Emission Limits

There shall be no noise emissions of environmental significance.



SCHEDULE C: Monitoring

C.1.1 Monitoring at Loading Areas

| Parameters | Monitoring Frequency/Time | Monitoring Locations | Analysis Method/Technique |
|---|---|--|--|
| Bathymetry & concurrent tide observations | <ul style="list-style-type: none"> • Within one week prior to the commencement of each loading campaign. • Within one week following completion of each loading campaign. | Loading areas A, B, C and D as specified in Condition 1.3. | High resolution bathymetric survey and concurrent tidal height measurements. |

C.1.2 Sediment Monitoring

| Parameters | Monitoring Frequency/Time | Monitoring Locations | Analysis Method/Technique |
|--|---------------------------|--|--|
| Visual inspection (to include colour, texture, odour, presence of animals etc.) | 2021 2024 | Loading areas A, B, C and D and Plough Dredging Areas A, B and C | Grab sampling of surface sediments and analysis by Standard Method ^{Note 2} |
| Water content & sediment density | 2021 2024 | Loading areas A, B, C and D and Plough Dredging Areas A, B and C | |
| Sediment grain size: ^{Note 1} % gravel (> 2mm fraction) % sand (< 2mm fraction) % mud/silt (< 63µm fraction) | 2021 2024 | Loading areas A, B, C and D and Plough Dredging Areas A, B and C | |

| | | |
|---|------------------|---|
| Total organic carbon; Carbonate; Mercury; Arsenic; Cadmium; Copper; Lead; Zinc; Chromium; Nickel; Lithium; Aluminium; TBT; DBT; HCB; γ-HCH (Lindane); Total extractable hydrocarbons; Individual congeners of PCB 28, 52, 101, 118, 138, 153, 180; Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Dibenzo(ah)anthracene, Benzo(ghi)perylene, Indeno(123-cd)pyrene, pp DDT, pp DDD, pp DDE. | 2021 2024 | Loading areas A, B, C and D and Plough Dredging Areas A, B and C |
|---|------------------|---|

Note 1: Monitoring of granulometry shall include but not be limited to the following fractions: >2 mm, <2 mm, >63 µm and <63 µm.

Note 2: Sampling and analyses shall be conducted in accordance with the analytical and quality requirements set out in: M. Cronin et al. 2006. Guidelines for the Assessment of Dredge Material for Disposal in Irish Waters. Marine Environment & Health Series, No. 24. Marine Institute.

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C.2 Monitoring at Dumping Sites

| Parameters | Monitoring Frequency/Time | Monitoring Locations | Analysis Method/Technique |
|---|---|---|--|
| Bathymetry & concurrent tide observations | <ul style="list-style-type: none"> • Within one week prior to the commencement of each dumping campaign. • Within one week following completion of each dumping campaign. | Dumping Sites A, B and C as per <i>Schedule A.2</i> . | High resolution bathymetric survey and concurrent tidal height measurements. |

C.3 Monitoring at Plough Dredging Areas

| Parameters | Monitoring Frequency/Timing | Monitoring Locations | Analysis Method/Technique |
|---|---|---|--|
| Bathymetry & concurrent tide observations | <ul style="list-style-type: none"> • Within one week prior to commencement of each plough dredging campaign. • Within one week following completion of each plough dredging campaign. | Plough dredging areas A, B and C as per <i>Schedule A.3</i> . | High resolution bathymetric survey and concurrent tidal height measurements. |

C.4 Marine Mammal Monitoring

| Parameters | Monitoring Frequency/Timing | Monitoring Locations | Analysis Method/Technique |
|--|---|---|--|
| Marine mammals | Duration of the loading and dumping activities | Loading Areas C and D and Dumping Site C. | Monitoring to be undertaken by an independent Marine Mammal Observer with relevant experience. |
| Noise source level, band width and attenuation rate of increased noise level with distance | During loading and dumping activities in 2021 or during the first Foynes dredging campaign, whichever is the sooner, and thereafter as required by the Agency | Loading Areas C and D and Dumping Site C. | Standard Methods |

SCHEDULE D: Annual Environmental Report

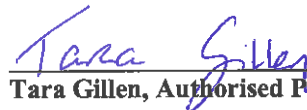
| Annual Environmental Report Content ^{Note 1} |
|---|
| Register/log of loading and dumping activities. |
| OSPAR dumping report. |
| Reported incidents summary. |
| Complaints summary. |
| Monitoring Summary. |
| Marine Mammal Monitoring Report, including Foynes Noise Study Report. ^{Note 2} |
| Accident Prevention Procedure. |
| Emergency Response Procedure. |
| Investigation of alternative re-uses summary. |
| Any other items specified by the Agency. |

Note 1: Content may be revised subject to the approval of the Agency.

Note 2: As required under Condition 4.7.3.

Sealed by the seal of the Agency on this the 21st day of December 2020.

**PRESENT when the seal of the Agency
Was affixed hereto:**



Tara Gillen, Authorised Person

