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Ireland

# DUMPING AT SEA PERMIT

|                                |                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Permit Register Number:</b> | S0033-01                                                                                                                                                  |
| <b>Permit Holder:</b>          | Dublin Port Company<br>Port Centre<br>Alexandra Road<br>Dublin 1                                                                                          |
| <b>Location of Loading:</b>    | Inner Liffey Channel including areas within Dublin Port's navigation channel, basins and berths                                                           |
| <b>Location of Dumping:</b>    | Dumping area located west of the Burford Bank in outer Dublin Bay, approximately 6.75km offshore (from the lighthouse at the end of the Great South Wall) |

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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: S0033-01

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 Dublin Port Company subject to conditions, as set out in the schedule attached hereto.

The permit authorises the loading of dredged material from the inner Liffey channel (Dublin Harbour), including areas within Dublin Port's navigational channel, basins and berths and the dumping of the material at the established dumping site immediately west of the Burford Bank in outer Dublin Bay 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 17<sup>th</sup> day of December, 2024

PRESENT when the Seal of the Agency  
was affixed hereto:

  
Anne Lucey, 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 authorises the loading of dredged material from the inner Liffey channel (Dublin Harbour), including areas within Dublin Port's navigational channel, basins and berths, arising from capital dredging works under the Dublin Harbour Capital Dredging Project and the dumping of the material at an established dumping site immediately west of the Burford Bank in outer Dublin Bay. The activities involve the loading and dumping of a maximum of 825,000 tonnes (wet weight) of dredged material over the period of December 2024 to March 2030. Chemical analysis has shown that the sediments from the loading areas are suitable for dumping at sea.

The loading of sediments must be undertaken using a trailing suction hopper dredger, and/or a backhoe dredger and bottom-opening barge, unless otherwise agreed by the Agency. The permit holder is required to take measures and manage the permitted activities to ensure the protection of the marine environment. Loading and dumping activities must not take place concurrently with loading and dumping activities authorised by any other Dumping at Sea permit held by the permit holder. The permit sets monitoring requirements for bathymetry, water quality and marine mammals. The permit holder is required to submit reports on the loading and dumping activities and monitoring results to the Agency.

The permit sets out in detail the conditions under which Dublin 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.

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accident</b>             | For the purpose of this permit an accident means an unplanned event that may result in pollution.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>AER</b>                  | Annual Environmental Report.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Approval</b>             | Approval in writing.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Application</b>          | The application by the permit holder for this permit.                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Attachment</b>           | Any reference to Attachments in this permit refers to attachments submitted as part of this permit application.                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Campaign</b>             | A planned period of sustained loading and/or dumping activity.                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>CEN</b>                  | Comité Européen De Normalisation – European Committee for Standardisation.                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Chart</b>                | Any reference to a chart or chart number means a chart or chart number contained in the application, unless otherwise specified in this permit.                                                                                                                                                                                                                                                                                                                                    |
| <b>Closed Period</b>        | Period of time when loading and/or dumping at sea is prohibited in order to protect designated species or sites.                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Competent Laboratory</b> | 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.                                                                                                                  |
| <b>Day</b>                  | Any 24 hour period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>DBT</b>                  | Dibutyltin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Documentation</b>        | Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this permit.                                                                                                                                                                                                                                                                                                                             |
| <b>Dumping</b>              | Dumping in relation to dumping at sea, means:<br><ul style="list-style-type: none"><li>(i) 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; and</li><li>(ii) any deliberate disposal in the maritime area of vessels, aircraft or offshore installations.</li></ul> |
| <b>Drawing</b>              | Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this permit.                                                                                                                                                                                                                                                                                                                            |
| <b>Exclusion Zone</b>       | Area where loading and/or dumping at sea is prohibited to protect the marine environment or designated species or sites.                                                                                                                                                                                                                                                                                                                                                           |
| <b>Harbour Authority</b>    | As defined in Section 1 of the Dumping at Sea Act 1996 as amended.                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HCB</b>                              | Hexachlorobenzene.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>HCH</b>                              | Hexachlorocyclohexane.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Incident</b>                         | The following constitutes an incident for the purposes of this permit: <ul style="list-style-type: none"> <li>(i) an emergency;</li> <li>(ii) any loading or dumping at sea activity which does not comply with the requirements of this permit;</li> <li>(iii) any indication that pollution has, or may have, taken place;</li> <li>(iv) activation of the alarmed turbidity and dissolved oxygen sensors specified in <i>Schedule C.1.2 Water Quality Monitoring</i> of this permit; and</li> <li>(v) any malfunction of or breakdown of key environmental control or monitoring equipment, as specified in <i>Schedule C.1.2 Water Quality Monitoring</i> of this permit.</li> </ul> |
| <b>Inland Waters</b>                    | Inland waters of the State shall be construed in accordance with Section 8 of the Maritime Jurisdiction Act 2021.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Maintain</b>                         | Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Map</b>                              | Any reference to a map or map number means a map or map number contained in the application, unless otherwise specified in this permit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Master</b>                           | The person having the command or charge of the vessel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Material Unsuitable for Disposal</b> | 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.                                                                                                                                                                                              |
| <b>MMRA</b>                             | Marine Mammal Risk Assessment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Monitored Zone</b>                   | Area which must be monitored for marine mammals by a Marine Mammal Observer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>OSPAR</b>                            | Convention for the Protection of the Marine Environment of the North-East Atlantic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>PAH</b>                              | Polycyclic aromatic hydrocarbons.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>PCB</b>                              | Polychlorinated biphenyls.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Permit Holder</b>                    | Dublin Port Company, Port Centre, Alexandra Road, Dublin 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Pollution</b>                        | 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.                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Position</b>                         | Latitude and longitude coordinates in degrees and decimal minutes, based on the WGS 84 datum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SAC</b>               | 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.                                                                                                                                                                                                                                                                                                                      |
| <b>Sample(s)</b>         | Unless the context of this permit indicates to the contrary, the term sample(s) shall include measurements taken by electronic instruments.                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Solid Waste</b>       | 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.                                                                                                                                                                                                                                                                                     |
| <b>SOP</b>               | Standard operating procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>SPA</b>               | Protection Area designated under the <i>Birds Directive</i> , Directive 2009/1 Special 47/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.                                                                                                                                                                                                                                                                                                                  |
| <b>Standard Method</b>   | 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. |
| <b>TBT</b>               | Tributyltin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>The Agency</b>        | Environmental Protection Agency.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>The Maritime Area</b> | Comprises: <ul style="list-style-type: none"><li>(i) the inland waters and territorial sea of the State, and the seabed and subsoil beneath them;</li><li>(ii) a designated area within the meaning of the Maritime Jurisdiction Act 2021; and</li><li>(iii) the exclusive economic zone of the State.</li></ul>                                                                                                                                                                                                   |

## *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 Dublin 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: S0033-01 and the supporting documentation received from the Applicant, the submission and comments received, the Inspector's Report dated 12 December 2024 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 Site(s) at Rockabill to Dalkey Island SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, North-West Irish Sea SPA and Lambay Island SAC.

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 has been made in light of the nature, scale and location of the proposed dumping activity within the Rockabill to Dalkey Island Special Area of Conservation (SAC) with potential for significant impacts from underwater noise and disturbance on its qualifying interest harbour porpoises. There is also potential for significant impacts from underwater noise and disturbance on Harbour and Grey seals, both qualifying interests of the Lambay Island SAC. In addition, the proposed loading activities are adjacent to the South Dublin Bay & River Tolka Estuary Special Protection Area (SPA) and in close proximity to the North Bull Island SPA, with the potential for significant impacts from hydromorphological effects (sediment plumes and deposition) on waterbirds and wetland habitats. The North-West Irish Sea SPA is also in close proximity to the dumping site with the potential for significant impacts from hydromorphological effects on bird species.

A report on Screening for Appropriate Assessment & Natura Impact Statement, dated July 2021, accompanied the permit application and an updated Natura Impact Statement was received by the Agency on 21 January 2024.

The Agency has completed the Appropriate Assessment of potential impacts on European 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 Rockabill to Dalkey Island SAC (Site Code: 003000), Lambay Island SAC (Site Code: 000204), South Dublin Bay & River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), North-West Irish Sea SPA (Site Code: 004236), Howth Head Coast SPA (Site Code: 004113), Ireland's Eye SPA (Site Code: 004117), Lambay Island SPA (Site Code: 004069) and Codling Fault Zone SAC (Site Code: 003015), 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 dumping site is located within the Rockabill to Dalkey Island SAC but is not located near the Annex I reef habitat.

- The loading and dumping activities will not result in the loss of nor disturb the habitats within the SACs and SPAs.
- The material to be dumped consists of essentially silts and sandy silts with elements of gravel and clay which has been deemed suitable for dumping at sea.
- Water quality monitoring data indicate there is no discernible or sustained increase in turbidity above background levels caused by loading and dumping activity. Hydrodynamic models predict minimal levels of silt deposition and no significant elevation in suspended solids in the water column outside the immediate zone of the operations.
- Conditions attached to the permit specifies measures to minimise the release of suspended solids and reduce impacts on water quality.
- The loading and dumping activities will occur temporarily, over a series of winters and over an extended period and will not result in a permanent reduction in prey biomass and availability for seabirds.
- A marine mammal observer will be employed to monitor, record and protect marine mammals, including Harbour porpoise and seals, in accordance with NPWS guidelines for the duration of the loading and dumping activities (Condition 4.9). The risk control and mitigation measures for marine mammals specified in the application must be implemented (Condition 4.9). In addition, dumping must not take place if a cetacean or seal is detected within a 100 metre radial distance of the dumping activity. Condition 4.9 also requires that a 'soft-start' or 'ramp up' procedure is employed during loading activities.
- A Closed Period provides for the temporal separation of activities from any maintenance dredging to reduce the cumulative impact on the receiving waters. Condition 3.5 states that loading and dumping activities must not take place concurrently with loading and dumping activities authorised by any other Dumping at Sea permit held by the permit holder to ensure that there is no overlap between these activities and no cumulative impact on the receiving waters.
- Noise from the activities will not lead to significant bird disturbance.
- To ensure there is no impact caused by an accidental pollution event from a dredging vessel (e.g. spillage of hydrocarbons), Condition 5 contains a number of measures for the permit holder to take in relation to incident investigation, taking measures to minimise the impact and avoiding a reoccurrence of an incident. Condition 5 also requires that a documented Accident Prevention Procedure and an Emergency Response Procedure to be in place in advance of the commencement of activities Condition 6 requires notification to EPA and a number of other bodies following any incident.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites; Rockabill to Dalkey Island SAC (Site Code: 003000), Lambay Island SAC (Site Code: 000204), South Dublin Bay & River Tolka Estuary SPA (Site Code: 004024), North Bull Island SPA (Site Code: 004006), North-West Irish Sea SPA (Site Code: 004236), Howth Head Coast SPA (Site Code: 004113), Ireland's Eye SPA (Site Code: 004117), Lambay Island SPA (Site Code: 004069) and Codling Fault Zone SAC (Site Code: 003015).

### ***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 Dublin Port Company, Port Centre, Alexandra Road, Dublin 1. 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 this permit must not 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 must be dredged material loaded from that part of the maritime area specified in Condition 1.3 of this permit.

#### 1.3 For the purposes of this permit, the location of the loading areas authorised by this permit is in those parts of the maritime area outlined on *Drawing No. IBE1618/DublinHarbour/DaS01* in Attachment D.2 of the application and bounded by the coordinates specified in Section D.2 of the application form except the exclusion zone set out in *Schedule A: Limitations* of this permit. Any reference in this permit to "loading areas" mean the areas thus specified. The permitted loading activity must be carried on only within the areas specified.

#### 1.4 For the purposes of this permit, the location of the dumping site authorised by this permit is in that part of the maritime area bounded by the coordinates specified in *Schedule A: Limitations* of this permit. Any reference in this permit to "dumping site" mean the area thus specified. The permitted dumping activity must be carried on only within the area specified.

#### 1.5 The permit holder must carry on the permitted activity in accordance with the limitations set out in *Schedule A: Limitations* of this permit.

#### 1.6 Loading and dumping at sea must 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.

#### 1.7 Any changes to the loading and dumping activities authorised by this permit must not be carried out or commenced without the prior approval of the Agency.

|                                                     |
|-----------------------------------------------------|
| <b>Reason:</b> To clarify the scope of this permit. |
|-----------------------------------------------------|

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

#### 2.1 The permit holder must 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 must ensure that personnel performing specifically assigned tasks must be qualified on the basis of appropriate education, training and experience as required and must be aware of the requirements of this permit.

#### 2.3 The permit holder must 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 must 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 must 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 must 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 must be defined.

2.6.2 Where a breach of one or more of the conditions of this permit occurs, the permit holder must, 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 must be documented.

**2.7 Public Awareness and Communications Programme**

2.7.1 The permit holder must 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 activity.

2.7.2 The Public Awareness and Communications Programme must include a specific programme of outreach to interested parties on matters relating to the environmental performance of the permitted activity.

**2.8 Marine Litter**

2.8.1 All reasonable and practicable efforts must be made to remove any solid waste collected during the loading and dumping activity and returned to land.

2.8.2 All reasonable and practicable efforts must be made to remove floating material collected during the loading and dumping activity and returned to land.

2.8.3 The permit holder must ensure that dredged material loaded by 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 must 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 must be transported only by an authorised waste contractor. The solid waste must 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.

|                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reason:</b> <i>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.</i> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Condition 3. Loading and Dumping at Sea Activities

- 3.1 All loading and dumping activities must be completed by 31 March 2030.
- 3.2 Material which has been categorised as unsuitable for disposal shall not be dumped at sea.
- 3.3 Loading activities must not take place within the exclusion zone specified in *Schedule A.3. Exclusion Zone* of this permit. The permit holder must submit a drawing of the exclusion zone and relevant coordinates to the Agency prior to the commencement of loading and dumping activities.
- 3.4 Loading activities must take place on one side of the channel at a time within the inner Liffey Channel, defined as the navigation channel landward (west) of the Bull Walls entrance, in order not to impede fish mobility.
- 3.5 Loading and dumping activities must not take place concurrently with loading and dumping activities authorised by any other dumping at sea permit held by the permit holder.
- 3.6 Dumping must be effected by release of the material through the hull of the vessel while the vessel is in motion.
- 3.7 Loading is prohibited during the Closed Period specified in *Schedule A.4 Closed period* of this permit.
- 3.8 Loading must be carried out by trailing suction hopper dredger (TSHD) and/or by backhoe dredger, unless otherwise agreed by the Agency in accordance with Condition 1.7.
- 3.9 The TSHD pumps must be switched off while the drag head is being lifted and returned to the bottom as the dredger turns between successive lines of dredging to minimise the risk of fish entrainment.
- 3.10 The permit holder must take measures to minimise the release of suspended solids into the water column during loading and on voyages to and from the dumping site.
- 3.11 Over-spilling from the vessel must not be permitted while the loading activity is being carried out and on voyages to the dumping site.
- 3.12 Dumping activities must be conducted to ensure a uniform spread of material throughout the dumping site.
- 3.13 The permit holder must liaise with the Harbour Master at the Dublin Port Company prior to the commencement of and during the loading and dumping activities.
- 3.14 Information relating to the activity must be recorded during each dumping voyage to the satisfaction of the Agency and must 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;
  - (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 activity, the permit holder must consult with the Marine Survey Office of the Department of Transport 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 must 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 must permit authorised officers, archaeologists, marine mammal observers to be on board the vessel. They must permit and facilitate the carrying out by the authorised officers of their functions under the Dumping at Sea Act 1996 as amended, and must comply with the provisions of that Act in relation to the authorised officers and those functions.
- 3.17 The permit holder must consult with the Marine Survey Office of the Department of Transport on Marine Notice No. 08 of 2024 and ensure that the required permitting is in place so authorised officers, archaeologists, marine mammal observers, can embark/disembark the vessels used in connection with the loading and dumping activities.
- 3.18 The permit holder must investigate alternative re-use options for the deep sediment at Berth 52. A report on this investigation must 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 must 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 must be undertaken by competent staff in accordance with documented operating procedures.
- 4.1.2 Such procedures must be assessed for their suitability for the test matrix and performance characteristics must be determined.
- 4.1.3 Such procedures must 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, must be done by a competent laboratory.
- 4.2 The permit holder must 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 must be carried out by an appropriate Standard Method.
- 4.3 All automatic monitors and samplers must be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring been approved in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee must contact the Agency as soon as practicable, and alternative sampling and monitoring facilities must be put in place. The use of alternative equipment, other than in emergency situations, must be as approved by the Agency.
- 4.4 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.
- 4.5 On completion of the activities, the permit holder must provide the bathymetry data, monitored under *Schedule C: Monitoring* of this permit, to the United Kingdom Hydrographic Office at [hdc@hdc.hydro.gov.uk](mailto:hdc@hdc.hydro.gov.uk) and the Geological Survey Ireland at [support@geodata.gov.ie](mailto:support@geodata.gov.ie) so that the appropriate charts can be updated.
- 4.6 Sediment Monitoring
- 4.6.1 A report on the sediment monitoring specified in *Schedule C: Monitoring* of this permit, must be submitted to the Agency within 1 month of completion of the analysis.
- 4.6.2 Following submission of the results of the sediment monitoring specified in *Schedule C: Monitoring* of this permit, loading may not proceed without the approval of the Agency.

- 4.7 Archaeology
- 4.7.1 The permit holder must notify the Underwater Archaeology Unit, National Monuments Service, Department of Housing, Local Government and Heritage prior to the commencement of the permitted loading and dumping activity.
- 4.7.2 The permit holder must comply with the archaeological monitoring requirements of the Underwater Archaeology Unit, National Monuments Service, Department of Housing, Local Government and Heritage.
- 4.7.3 The permit holder must 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.
- 4.8 Water Quality Monitoring
- 4.8.1 The loading and dumping activities must not give rise to turbidity levels, at any specified monitoring location which exceed the predicted values as agreed by the Agency, and in accordance with the with the sediment dispersion models presented in *Chapter 13 Material Assets – Coastal Processes of Application Form - Attach A.1 - Capital Dredging - Vol 2 – EIAR* submitted with the application for the Dumping at Sea permit.
- 4.8.2 A report on this monitoring, including compliance with Condition 4.8.1, must be submitted to the Agency as part of the AER.
- 4.8.3 The licensee must establish suitable alarm levels for dissolved oxygen at monitoring locations specified in *Schedule C.1.2 Water Quality Monitoring* of this permit.
- 4.9 Marine Mammals
- 4.9.1 The permit holder must appoint a Marine Mammal Observer who must 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@npws.gov.ie](mailto:offshore@npws.gov.ie), or such other address as may be advised, within 1 month of completion of each campaign.
- 4.9.2 The permit holder must implement the risk control and mitigation measures for marine mammals as specified in the application, unless otherwise agreed by the Agency.
- 4.9.3 Dumping must not take place if a cetacean or seal is detected within a 100 metre radial distance of the dumping activity.
- 4.9.4 A 'soft-start' or 'ramp up' procedure must be employed during loading activities, both on a day-to-day basis and on re-start after any stoppages in any day, whereby sound energy input to the marine environment is gradually or incrementally increased from levels unlikely to cause significant behavioural impact on fish or marine mammals to the full output necessary for completion of the activities.
- 4.9.5 The implementation of the risk control and mitigation measures for marine mammals must be to the satisfaction of the Agency.
- 4.10 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.

|                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Reason:</b> 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.</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Condition 5. Incident Prevention and Emergency Response

### 5.1 Incidents

In the event of an incident the permit holder must 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 must 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 must 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 must, 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 must, in advance of the commencement of the activities, ensure that a documented Emergency Response Procedure is in place that addresses any emergency situation which may arise. This procedure must include provision for minimising the effects of any emergency on the environment.

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| <b>Reason:</b> <i>To provide for the protection of the marine environment.</i> |
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## Condition 6. Notification, Records and Reports

6.1 The permit holder must 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 must 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 must notify the Marine Institute, Sea Fisheries Protection Authority (Howth office), 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 must notify the National Monuments Service, National Parks and Wildlife Service, Marine Institute, Sea Fisheries Protection Authority (Howth office) and Inland Fisheries Ireland and any other relevant authorities as soon as practicable after such an incident.

6.4 The permit holder must make a record of any incident. This record must include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record must include all corrective actions taken to manage the incident, and the effect on the marine environment, and avoid recurrence. The permit holder must, as soon as practicable following incident notification, submit to the Agency the incident record.

6.5 The permit holder must record all complaints related to the loading and dumping activities. Each such record must 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 must be kept of the response made and any corrective action undertaken in the case of each complaint. This record must be made available to the Agency upon request.

- 6.6 The permit holder must 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) the complaints register;
  - (vi) up to date drawings/plans showing the location of the loading areas and the dumping sites authorised by this permit;
  - (vii) the marine positional log; and
  - (viii) any elements of the permit application and associated documentation referenced in this permit.

This documentation must be available to the Agency for inspection at all reasonable times and must 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 must submit electronically to the Agency, by the 31 March of each year, an AER covering the previous calendar year. This report must include as a minimum the information specified in *Schedule D: Annual Environmental Report* of this permit, and must 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 must be open to inspection by authorised officer of the Agency at all times, must be kept by the permit holder on matters relating to each load of the substance or material intended to be dumped and put on board the vessel. This record must be maintained continually and must as a minimum contain those details specified in Condition 3.14 of this permit. This information must 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 must be certified accurate and representative by the permit holder, manager or a nominated, suitably qualified and experienced deputy.
- 6.10 The permit holder must notify the Agency in writing upon completion of the loading and dumping activities to which this permit relates.
- 6.11 The permit holder must submit the reports, proposals and submissions required by this permit by the deadlines specified. The permit holder will 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 must 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 will not be in compliance with the requirements of this condition unless and until it has carried out every such action.

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| <b>Reason:</b> <i>To provide for the collection and reporting of adequate information on the loading and dumping at sea activity.</i> |
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## Condition 7. Financial Charges

### 7.1 Agency Charges

- 7.1.1 The permit holder must 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 must 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 must also be borne by the holder of the permit.

7.2 The Permit Holder must indemnify the Agency and its authorised officers against all cost incurred by him as a result of a breach of any of the conditions of this permit.

|                                                                                                           |
|-----------------------------------------------------------------------------------------------------------|
| <b>Reason:</b> <i>To provide for adequate financing for monitoring to protect the marine environment.</i> |
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## SCHEDULE A: Limitations

### A.1 Quantity of Dredged Material to be Dumped at Sea

|                     | Maximum quantity<br>in the period<br>October to March<br>(tonnes, wet weight) | Maximum volume (m <sup>3</sup> ),<br>including entrained<br>water, per dumping<br>voyage from the inner<br>Liffey Channel <sup>Note 1</sup> | Total maximum<br>quantity over the<br>duration of the permit<br>(tonnes, wet weight) |
|---------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Dredged<br>material | 270,695                                                                       | 4,100                                                                                                                                       | 825,000                                                                              |

Note 1: The hopper fill capacity limit per voyage.

### A.2 Location of Dumping Site

#### Dumping Site A:

|       | Latitude<br>(in degrees & decimal minutes)<br>(use N for North) | Longitude<br>(in degrees & decimal minutes)<br>(use W for West) |
|-------|-----------------------------------------------------------------|-----------------------------------------------------------------|
| Dmp 1 | 53°20.084 N                                                     | 6°3.0596 W                                                      |
| Dmp 2 | 53°20.084 N                                                     | 6°1.8798 W                                                      |
| Dmp 3 | 53°19.184 N                                                     | 6°1.8798 W                                                      |
| Dmp 4 | 53°19.184 N                                                     | 6°2.7697 W                                                      |
| Dmp 5 | 53°19.394 N                                                     | 6°3.0597 W                                                      |

### A.3 Exclusion zone

| Applicable Areas                                                                                                                                                               | Prohibited Activity | Reason for Exclusion Zone                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------|
| 50m exclusion zone (radial distance) within the Ferryport Basin around sampling locations 1-12, as shown on Figure 2.1 of Unsolicited Information received on 25 October 2024. | Loading             | Contaminated sediment excluded from dumping at sea. |

### A.4 Closed Period

| From                   | To                         | Applicable Areas                                                                                                                | Reason for Closed Period                                                                            |
|------------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1 <sup>st</sup> April  | 30 <sup>th</sup> September | Loading Areas as per Condition 1.3                                                                                              | To avoid overlap between any maintenance dredging activities occurring between April and September. |
| 15 <sup>th</sup> March | 31 <sup>st</sup> March     | Loading areas of the main channel and channel-side berths in the inner Liffey Channel upstream of Berth 49, but not the basins. | To protect migrating Atlantic Salmon smolts and River Lamprey.                                      |

## **SCHEDULE B: Emission Limits**

There must be no noise emissions of environmental significance.



## SCHEDULE C: Monitoring

### C.1 Monitoring at the Loading Areas

#### C.1.1 Bathymetry Monitoring

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

#### C.1.2 Water Quality Monitoring

| Parameters       | Monitoring Frequency/Time                                                                                                                                                  | Monitoring Locations                                                                                                                                               | Analysis Method/Technique                                                                          |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Turbidity        | Continuous for duration of loading activity and at a minimum one week prior to commencement of the loading activity and one week after completion of the loading activity. | 1. East Link Bridge<br>53°20.74N 6°13.58<br>2. Poolbeg Jetty<br>53°20.52 6°11.58<br>3. Northbank Light<br>53°20.72 6°10.13<br>4. Tolka Estuary<br>53°20.69 6°9.566 | Alarmed turbidity sensor, deployed on moored buoy, to demonstrate compliance with Condition 4.8.1. |
| Dissolved oxygen |                                                                                                                                                                            |                                                                                                                                                                    | Alarmed dissolved oxygen sensor, deployed on moored buoy.                                          |

**C.1.3 Sediment Monitoring**

| Parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Monitoring Frequency/Time | Monitoring Locations                                                                                                                                                                                                                                  | Analysis Method/Technique                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Visual inspection (to include colour, texture, odour, presence of animals etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2026 & 2029               | Loading Areas at sediment sampling locations 1–32, as shown on Figure 1 of application Section 5(2) Response received on 15/11/2023 and at sampling locations 1,4,7 and 10, as shown on Figure 2.1 of Unsolicited Information received on 25/10/2024. | Grab sampling of surface sediments and analysis by Standard Method <sup>Note 2</sup> |
| Water content & sediment density                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2026 & 2029               |                                                                                                                                                                                                                                                       |                                                                                      |
| Sediment grain size: <sup>Note 1</sup><br>% gravel (> 2mm fraction)<br>% sand (< 2mm fraction)<br>% mud/silt (< 63µm fraction)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 2026 & 2029               |                                                                                                                                                                                                                                                       |                                                                                      |
| Total organic carbon;<br>Carbonate;<br>Mercury;<br>Arsenic;<br>Cadmium;<br>Copper;<br>Lead;<br>Zinc;<br>Chromium;<br>Nickel;<br>Lithium;<br>Aluminium;<br>TBT;<br>DBT;<br>HCB;<br>γ-HCH (Lindane);<br>Total extractable hydrocarbons;<br>Individual congeners of PCB 28, 52, 101, 118, 138, 153, 180;<br>Naphthalene,<br>Acenaphthylene,<br>Acenaphthene,<br>Fluorene,<br>Phenanthrene,<br>Anthracene,<br>Fluoranthene,<br>Pyrene,<br>Benzo(a)anthracene,<br>Chrysene,<br>Benzo(b)fluoranthene,<br>Benzo(k)fluoranthene,<br>Benzo(a)pyrene,<br>Dibenzo(ah)anthracene,<br>Benzo(ghi)perylene,<br>Indeno(123-cd)pyrene,<br>pp DDT,<br>pp DDD,<br>pp DDE. | 2026 & 2029               |                                                                                                                                                                                                                                                       |                                                                                      |

|               |      |                            |                                                                       |
|---------------|------|----------------------------|-----------------------------------------------------------------------|
| Radionuclides | 2027 | To be agreed by the Agency | Grab sampling of surface sediments and analysis by gamma spectrometry |
|---------------|------|----------------------------|-----------------------------------------------------------------------|

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

**Note 2:** Sampling and analyses must 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

#### ***C.1.4 Marine Mammal Monitoring***

| Parameters     | Monitoring Frequency/Time          | Monitoring Locations                                                       | Analysis Method/Technique                                                                      |
|----------------|------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Marine mammals | Duration of the loading activities | Within a 500m radial distance of the dredging vessel in the Loading Areas. | Monitoring to be undertaken by an independent Marine Mammal Observer with relevant experience. |

#### ***C.1.5 Archaeology Monitoring***

| Parameters  | Monitoring Frequency/Time          | Monitoring Locations                | Analysis Method/Technique                                                                                                                             |
|-------------|------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Archaeology | Duration of the loading activities | Loading Areas as per Condition 1.3. | Monitoring to be undertaken by a suitably qualified archaeologist under a licence issued by the Department of Housing, Local Government and Heritage. |

## C.2 Monitoring at Dumping Site

### C.2.1 Bathymetry Monitoring

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

### C.2.2 Water Quality Monitoring

| Parameters | Monitoring Frequency/Time                                                                                     | Monitoring Locations                                                                                                                                                                                            | Analysis Method/Technique                                                                 |
|------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Turbidity  | Once per annum prior to and immediately following a dumping activity, or as otherwise required by the Agency. | <ol style="list-style-type: none"> <li>1. A minimum of three locations must be monitored within the modelled zone of impact of the dumping activity.</li> <li>2. Control point <small>Note 1</small></li> </ol> | Turbidity probe to demonstrate compliance to demonstrate compliance with Condition 4.8.1. |

**Note 1:** The control site should be situated well outside the zone of impact of the dumping activity and be representative of background turbidity levels in Dublin Bay.

### C.2.3 Marine Mammal Monitoring

| Parameters     | Monitoring Frequency/Time          | Monitoring Locations                                   | Analysis Method/Technique                                                                      |
|----------------|------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Marine mammals | Duration of the dumping activities | Within a 500m radial distance of the dumping activity. | Monitoring to be undertaken by an independent Marine Mammal Observer with relevant experience. |

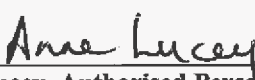
**SCHEDULE D: Annual Environmental Report**

| Annual Environmental Report Content <sup>Note 1</sup>                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Register/log of loading and dumping activities.<br>OSPAR dumping report.<br>Reported incidents summary.<br>Complaints summary.<br>Monitoring Summary.<br>Marine Mammal Monitoring Report.<br>Accident Prevention Procedure.<br>Emergency Response Procedure.<br>Investigation of alternative re-uses for the deep sediment at Berth 52 summary.<br>Any other items specified by the Agency. |

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

**Sealed by the seal of the Agency on this the 17<sup>th</sup> day of December 2024.**

**PRESENT when the Seal of the Agency was affixed hereto:**

  
\_\_\_\_\_  
Anne Lucey, Authorised Person

