Dublin Port Company

Dumping at Sea Permit – Supporting Information

Appropriate Assessment
Stage One: Screening
Dublin Port Company
Dumping at Sea Permit Supporting information
Appropriate Assessment Stage One: Screening

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1 Introduction

1.1 General

1.1.1 This Appropriate Assessment (AA) Stage 1 Screening Report supports the application for a Dumping at Sea Permit for the Dublin Port 6-year maintenance dredging plan (2009-2014) and should be read in conjunction with the Dumping at Sea application and supporting documents.

1.1.2 The following report has been produced in response to EPA correspondence dated 21 April 2011 (Reg. No. S0004-01) requesting Dublin Port Company (DPC) to provide further assessment of the likelihood of significant effects of the dumping and loading activities on the relevant European site(s).

1.1.3 In order to maintain the dredged profiles of navigable channels, berths and docks, and therefore safe usage of the port, DPC needs to carry out regular maintenance dredging of these areas. It is proposed to dispose of the resulting dredged spoil at the Burford Bank spoil ground as charted on the Dublin Bay Admiralty map (see the main supporting document, Appendix A, Figure 2). This spoil site has been in use since 1996; it is approximately 212 hectares and is adjacent to the previous disposal site which was used from the 1960’s to 1996.

1.1.4 Article 6.3 of the Habitats Directive requires that ‘any plan or project not directly connected with or necessary to the management of the (Natura 2000) site, but likely to have a significant effect thereon, shall be subject to an AA of its implications for the site in view of the site conservation objectives’.

1.1.5 This document outlines the AA Screening process undertaken to establish if the proposed dredging and dumping activities within Dublin Bay are likely to have significant effects on the surrounding Natura 2000 sites and consequently require an AA of its implications for the sites in view of the site’s conservation objectives.

1.1.6 The AA Screening process for the surrounding designated sites has been undertaken in accordance with the following guidance documents:

- Department of Environment, Heritage and Local Government (DEHLG), *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (2009); and
1.2 Appropriate Assessment

1.2.1 The EC guidance document (2002) sets out the four stages in the process which have been reflected within the DEHLG guidelines (2009). The four stages of AA are as follows:

- **Stage One: Screening** - the process which identifies the likely impacts upon a Natura 2000 site from a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant;

- **Stage Two: Appropriate Assessment** - the consideration of the impact on the integrity of the Natura 2000 site from the project or plan, either alone or in combination with other projects or plans, with respect to the site structure and function and its conservation objectives. Additionally, where there are adverse impacts, this stage includes an assessment of the potential mitigation of those impacts;

- **Stage Three: Assessment of alternative solutions** - the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site;

- **Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain** - an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

1.3 Stage One: Screening

1.3.1 This screening stage of the AA process involves the following steps:

1. Determining whether the project or plan is directly connected with or necessary to the management of the site;

2. Describing the project / plan;

3. Identifying the potential effects on the Natura 2000 site; and

4. Assessing the significance of any effects on the Natura 2000 site.
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2 Site identification

2.1.1 There are a number of Special Areas of Conservation (SAC) and Special Protection Areas (SPA) within the vicinity of the proposed dredging and dumping activities as listed in Table 2.1 below (see also Figure 9 of the Dumping at Sea Permit Supporting Information.)

2.1.2 The proposed dredging and dumping at sea activities i.e. the project, are not directly connected with or necessary to the management of any of the identified Natura 2000 sites.

Table 2.1 Designated Areas (Natura 2000 sites) within 10 km of the proposed dredging spoil dumpsite

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Site Code</th>
<th>Designation(s)</th>
<th>Approx. distance (km) &amp; direction&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Approx. distance (km) &amp; direction&lt;sup&gt;2&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>North Bull Island</td>
<td>004006</td>
<td>SPA</td>
<td>0.0&lt;sup&gt;3&lt;/sup&gt; North-east</td>
<td>4.4 North-west</td>
</tr>
<tr>
<td>South Dublin Bay &amp; River Tolka Estuary</td>
<td>004024</td>
<td>SPA</td>
<td>0.0&lt;sup&gt;4&lt;/sup&gt; North &amp; south</td>
<td>7.5 North-west 6.1 South-west</td>
</tr>
<tr>
<td>Howth Head Coast</td>
<td>004113</td>
<td>SPA</td>
<td>14.0 North-east</td>
<td>3.5 North</td>
</tr>
<tr>
<td>Ireland Eye</td>
<td>004117</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>002193</td>
<td>SPA</td>
<td>16.0 North-east</td>
<td>8.7 North</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SAC</td>
<td></td>
<td></td>
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<tr>
<td>Ballyheigue Bay</td>
<td>004016</td>
<td>SPA</td>
<td>19.0 North-east</td>
<td>9.5 North-west</td>
</tr>
<tr>
<td></td>
<td>000199</td>
<td>SAC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Dublin Bay</td>
<td>000206</td>
<td>SAC</td>
<td>1.6 North-east</td>
<td>5.9 North-west</td>
</tr>
<tr>
<td>South Dublin Bay</td>
<td>000210</td>
<td>SAC</td>
<td>1.0 North-east</td>
<td>8.8 West</td>
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<td>Howth Head</td>
<td>000202</td>
<td>SAC</td>
<td>14.0 North-east</td>
<td>3.6 North</td>
</tr>
</tbody>
</table>

<sup>1</sup> This distance is taken as the closest point of the SAC/SPA to the closest boundary of the proposed dredging.

<sup>2</sup> This distance is taken as the closest point of the SAC/SPA to the closest boundary of the proposed dumpsite.

<sup>3</sup> These sites are directly adjacent to the Dublin Port estate.

<sup>4</sup> Part of the SPA lies within the Dublin port estate Both common tern and Arctic tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin.
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2.1.3 Due to the distance, direction and the fact that Howth Harbour lies between the dredging and dumping activities the Natura 2000 sites; Baldoyle Bay and Ireland's Eye SPAs & SACs are not considered further at this Screening Stage.
3 Description of the Project

3.1 Need for the project

3.1.1 Dublin Port is situated on the River Liffey which flows through the City of Dublin and between the Great South Wall and North Bull Wall before entering Dublin Bay. The breakwaters channel the flow of the river, maintaining some of its velocity further into Dublin Bay than would occur naturally. This velocity is maintained sufficiently to carry substantial quantities of sediment that would have otherwise settled at the mouth of the river. However, some quantities do settle in the mouth of the river, and, coupled with coastal sediment transport processes and storm events, lead to deposition of material within and beyond the breakwaters. Further to the above, over time, dredged profiles collapse and are distorted by the movement of sediment as a result of ships propulsion.

3.1.2 Full details of the proposed dredging and dumping work are contained within the main Dumping at Sea (DaS) Application Supporting Document. The following summarises the main aspects of the project.

3.2 Areas to be dredged

3.2.1 The maintenance dredging will be carried out in the following areas:

- **Berths to the East of the East Link Bridge** - The standard depth of these berths varies between -6.5m and -11.3m below Lowest Astronomical Tide (LAT), which is 0.1m below Chart Datum at Dublin Port; and

- **The Fairway** – This is the main channel through the port complex, running from the East Link Bridge through the centre of the Port and out between the North Bull and Great South Wall. Seaward of the East Link Bridge the Fairway is maintained at a standard depth varying from -6.5m LAT to -7.8m below LAT.

3.2.2 For the purpose of this application the proposed dredging area has been divided into two areas namely “Area A” and “Area B”. In August 2006 and again in October 2008, in accordance with current guidance and in agreement with the Marine Institute (MI), samples were taken from a number of sites (see the main supporting document, Appendix A, Figure 3) to characterise the chemical nature of the sediments to be dredged. The sediments within the proposed dredging area were assessed against the limits of suitability for dumping at sea as outlined within the MI Guidelines for the Assessment of Dredge Material for Disposal in Irish waters (2006).

3.2.3 A number of elevated results were identified in sediments upstream of a line between the western end of Berth 35 and the western end of Berth 41, Area A (see Appendix A, Figure 5). Area A includes a buffer zone downstream of the sample points with elevated levels
of contaminants. Whilst the quality of material is below the upper thresholds for dumping at sea, the range of elevated contaminants identified caused concern and has been categorised as Class 2 under the MI guidelines. Further testing was undertaken in September 2006, which confirmed the extent of contaminants within these sediments and in light of this the MI deemed that this should not be subject to unrestricted dumping at sea. This is referred to as Area A.

3.2.4 Downstream of the line between the western end of Berth 35 and the western end of Berth 41, the assessment determined that the quality of the material was below the lower thresholds for dumping at sea and was categorised as Class 1. This material was considered suitable for unrestricted dumping at sea and the area in which this material prevails shall hereafter be referred to as Area B (see Appendix A, Figure 5 within the Dumping at Sea application supporting document).

3.2.5 Further detail of the sampling and analysis carried out on the proposed dredging areas can be found within the DaS Main Supporting Document.

3.3 Volume of spoil material to be dredge/dumped

3.3.1 The volume of material to be dredged from the berths and fairway areas over the 6 year period is as follows:
- The Berth – 548,000 m$^3$; and
- The Fairway – 1,327,000 m$^3$

3.3.2 As stated the dredging areas have been divided into two distinct areas ‘Area A’ and ‘Area B’ due to the class of the material to be dredged. The volume of material to be dredged from these areas over the 6 year period is as follows:
- Area A – 50,000 m$^3$; and
- Area B – 1,825,000 m$^3$

3.3.3 All of the dredge spoils are proposed to be disposed of at the Burford Bank charted spoil ground.

3.4 Dredge disposal area (Burford Bank)

3.4.1 It is proposed to dispose of the dredged material at the Burford Bank charted spoil ground. The depth of water at the site is approximately 20m. The area comprising approximately 2.12 km$^2$ has been in use since 1996 and is adjacent to the previous disposal site used from the 1960’s to 1996.

3.4.2 The area is bounded by the following co-ordinates:
- Latitude 53°20.07’ North and longitude 06°03.00’ West,
3.4.3 The site is predominantly sand with low levels of silt and lies at a depth of 20m. The bathymetric survey identified the site as characterised by a regular sloping shelf from 15m on the eastern edge to 24m on the western edge of the site.

3.5 Disposal method

3.5.1 Full details of the proposed disposal method are contained in 4.1.1 within the main supporting document. A brief summary has been provided within this report. Due to the elevated levels of contaminants in the upstream material in Area A compared to the current threshold values, unconfined disposal of sediment at sea is not considered to be a suitable disposal option for this material. Therefore, capping of this material is required.

3.5.2 The objective of capped in-water disposal is to isolate Class 2/Restricted material from the environment by capping the sediment with clean material – usually sand or other coarse material. The contaminated dredged material is placed on the level sea bed or within bottom depressions and clean material is then placed on top. Specific engineering principles are used in the design and placement of the cap to ensure that it successfully isolates the contaminants and stays in place. Caps are designed so that currents, waves, or burrowing sea bed creatures will not erode the protective layer over time.

3.5.3 In order to provide the best environmental option, the dredged sediments from the uncontaminated area of the port (Area B) will be used as the capping material for the Class 2/Unrestricted material from Area A. It is anticipated that the Area B material will be suitable for the cap as it contains similar granulometry to the material at the dump site. This material will be deposited at the dumping site at 18 month intervals as part of the dredging operation and therefore no cap replenishment activities from other sources are expected to be required. Level Bottom Capping (LBC) is the preferred option for restricted disposal of Class 2 sediments. Further detail of this disposal method is provided within the DaS application supporting document.

3.5.4 Placing of contaminated material shall be at slack water by bottom dumping. Analysis contained in Appendix L shows that over 92% of the material is expected to be on the bottom within 8 minutes and 97% within 16 minutes of release, hence minimising dilution and dispersion.
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4 Natura 2000 Sites

4.1 Introduction

4.1.1 The following section briefly describes the Natura 2000 sites covered under this assessment and list their associated qualifying interest and conservation objectives (* denotes a priority habitat under the Habitats Directive 92/43/EEC).

4.2 North Bull Island Special Protection Area (SPA) (Site Code 004006)

4.2.1 This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. This Natura 2000 site is of international importance on account of both the total number of waterfowl and the individual populations of light-bellied Brent goose, blacktailed godwit and bar-tailed godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive.

4.2.2 The special conservation interests for the North Bull Island SPA are:

- Light-bellied Brent Goose (*Branta bernicla hrota*)
- Dunlin (*Calidris alpine*)
- Shelduck (*Tadorna tadorna*)
- Black-tailed Godwit (*Limosa limosa*)
- Pintail (*Anas acuta*)
- Bar-tailed Godwit (*Limosa lapponica*)
- Shoveler (*Anas clypeaat*)
- Redshank (*Tringa tetanus*)
- Oystercatcher (*Haematopus ostralegus*)
- Turnstone (*Arenaria interpres*)
- Grey Plover (*Pluvialis squatarola*)
- Knot (*Calidris canutus*)
- 20,000 wintering waterbirds

4.2.3 Additional species of conservation interest include:

- Teal (*Anas crecca*)
- Curlew (*Numenius arquata*)
Golden Plover (Pluvialis apricaria)  Black-headed Gull (Larus ridibundus)
Sanderling (Calidris alba)  Wetland & Waterbirds

4.2.4 The Draft Conservation Objective for the North Bull Island SPA is as follows:
- To maintain the special conservation interests for this SPA at favourable conservation status: light-bellied Brent goose, Shelduck, pintail, shoveler, oystercatcher, grey plover, knot, dunlin, black-tailed godwit, bar-tailed godwit, redshank, turnstone, 20,000 wintering waterbirds, teal, ringed plover, golden plover, sanderling, curlew, black-headed gull, wetland & waterbirds.

4.3 South Dublin Bay and River Tolka Estuary SPA (Site Code 004024)

4.3.1 The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. The South Dublin Bay and River Tolka Estuary SPA is of international importance for light-bellied Brent goose and of national importance for nine other waterfowl species. As an autumn tern roost, it is also of international importance. Furthermore, the site supports a nationally important colony of Common Tern. All of the tern species using the site are listed on Annex I of the E.U. Birds Directive, as are bar-tailed godwit and Mediterranean gull.

4.3.2 The special conservation interests for the South Dublin Bay and River Tolka Estuary SPA are:
- Light-bellied brent goose  Redshank
- Knot  Roseate tern (Sterna dougallii)
- Sanderling  Common tern (Sterna hirundo)
- Bar-tailed godwit  Arctic tern (Sterna paradisaea)

4.3.3 Additional species of conservation interest include:
- Oystercatcher  Dunlin
- Ringed Plover  Black-headed gull
- Grey Plover  Wetland & waterbirds
The Draft Conservation Objective for the South Dublin Bay and River Tolka Estuary SPA is:

- To maintain the special conservation interests for this SPA at favourable conservation status: Light-bellied Brent goose, knot, sanderling, bar-tailed godwit, redshank, roseate tern, common tern, Arctic tern, oystercatcher, ringed plover, grey plover, dunlin, black-headed gull, wetland & waterbirds.

Howth Head Coast Special Protection Area (SPA) (Site Code 004113)

Howth Head is a rocky headland situated on the northern side of Dublin Bay. The peninsula is composed of Cambrian rock of the Bray Group, the most conspicuous component being quartzite. The site comprises the sea cliffs extending from just east of the Nose of Howth to the tip of the Bailey Lighthouse peninsula. The marine area to a distance of 500 m from the cliff base, where seabirds socialise and feed, is included within the site.

The cliffs vary from between about 60 m and 90 m in height, and in places comprise fairly sheer, exposed rock face. This site is of high ornithological importance, with four seabird species having populations of national importance. It is also a traditional nesting site for Peregrine falcon listed species under the Birds Directive (2009/147/EC). The kittiwake a special conservation interest for the Howth Head Coast SPA is not listed on any Annexes of the EU Birds Directive, nor is it covered specifically by the Bern Convention or the Convention on Migratory Species.

The special conservation interest for the Howth Head Coast SPA is:

- The Kittiwake (*Rissa tridactyla*)

The Draft Conservation Objective for the Howth Head Coast SPA is:

- To maintain the special conservation interests for this SPA at favourable conservation status: kittiwake.

North Dublin Bay candidate Special Area of Conservation (cSAC) (Site Code 000206)

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. The island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. This site is an excellent example of a coastal site with all the main habitats represented. The site holds good examples of ten habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with
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priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected.

4.5.2 The Qualifying Interest and the Natura 2000 habitat/species code(s) for the North Dublin Bay cSAC are:

- Mudflats and sandflats not covered by seawater at low tide (1140)
- *Salicornia* and other annuals colonizing mud and sand (1310)
- Atlantic salt meadows (*Glaucoc-Puccinellietalia maritimae*) (1330)
- Mediterranean salt meadows (*Juncetalia maritimi*) (1410)
- Embryonic shifting dunes (2110)
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) (2120)
- Fixed coastal dunes with herbaceous vegetation (grey dunes) (2130)*
- Humid dune slacks (2190)
- *Pettlewort* (*Petalophyllum ralfsii*) (1395)

4.5.3 The Draft Conservation Objectives for the North Dublin Bay cSAC are as follows:

- To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide; *Salicornia* and other annuals colonizing mud and sand; Atlantic salt meadows; Mediterranean salt meadows; Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Humid dune slacks.
- To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Petalophyllum ralfsii*.
- To maintain the extent, species richness and biodiversity of the entire site.
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

4.6 South Dublin Bay candidate Special Area of Conservation (cSAC) (Site Code 000210)

4.6.1 South Dublin Bay cSAC is an intertidal site with extensive areas of sand and mudflats, a habitat listed on Annex 1 of the EU Habitat’s Directive. The area is an important site for waterfowl, the principle species being oystercatcher, ringed plover, sanderling and dunlin, redshank, turnstones during winter, Brent geese in regular numbers of international
importance. Bar-tailed godwit, listed on Annex I of the EU Birds Directive also occur. The area is also an important tern roost in the autumn, including Roseate terns, a species listed on Annex 1 of the EU Birds Directive.

4.6.2 The qualifying Interest and Natura 2000 habitat/species code for the South Dublin Bay cSAC is:
- Mudflats and sandflats not covered by sea water at low tide (1140).

4.6.3 The Draft Conservation Objectives for the South Dublin Bay cSAC are as follows:
- To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide;
- To maintain the extent, species richness and biodiversity of the entire site; and
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

4.7 Howth Head candidate Special Area of Conservation (cSAC) (Site Code 000202)

4.7.1 Howth Head is a rocky headland situated on the northern side of Dublin Bay. Howth Head contains sea cliffs and dry heaths, two habitats listed on Annex 1 of the E.U. Habitats Directive.

4.7.2 The Qualifying Interests and the Natura 2000 habitat/species code(s) for the Howth Head cSAC are:
- Vegetated sea cliffs of the Atlantic and Baltic coasts (1230); and
- European dry heaths (4030).

4.7.3 The Draft Conservation Objectives for the Howth Head cSAC are as follows:
- To maintain the Annex I habitats for which the cSAC has been selected at favourable conservation status: Vegetated sea cliffs of the Atlantic and Baltic coasts; European dry heaths;
- To maintain the extent, species richness and biodiversity of the entire site; and
- To establish effective liaison and co-operation with landowners, legal users and relevant authorities.
5 **Assessment of effects on Natura 2000 sites**

5.1 **Likely significant effects**

5.1.1 Potential significant effects on the Natura 2000 sites would include those that have the potential to affect the integrity of the European sites and compromise their conservation objectives.

5.1.2 Impacts arising from the proposed project could fall under the following categories:
- Direct impact;
- Indirect and secondary impacts; and
- Cumulative Impacts.

5.1.3 For the dredging and disposal at sea to fail the *test of likely significance* there would need to be an effects pathway from the operation that would compromise the conservation objectives of one or more of the European sites listed in Table 2.1 and affect at least one qualifying feature.

5.1.4 The position of the North Dublin Bay SAC, South Dublin Bay SAC and Howth Head SAC and their qualifying interests are unlikely to be affected by the dredging and disposal of the dredged material.

5.1.5 Howth Head SAC’s qualifying interests are terrestrial vegetation systems (4.7) and do not have direct or indirect effects pathway from the dredging operations and therefore this European site can be screened out and is not considered further in this assessment.

5.1.6 The main potential effects to the North and South Dublin Bay SACs relate to changes in water quality that then could have implications for their intertidal biota. As many of the qualifying features of North Bay Dublin Bay SAC such as embryonic shifting dunes, shifting dunes along the shoreline with *Ammophila arenaria* (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), humid dune slacks, Pettlewort (*Petalophyllum ralfsii*) are above the high tide line there is no effects pathway that could compromise the conservation objectives of these features.

5.1.7 For those intertidal biota, in context within Dublin Bay, there are continuous discharges including effluent from water treatment works which serve approximately 70% of the population of Dublin, smaller outfalls and contaminants carried down in the rivers and streams. Other sources of pollution that may affect water quality in the bay and sediment quality are dredge spoil disposal, litter, chronic spillages of small amounts of oil, ores and other toxic substances and diffuse sources. Since 1999 there has been no dumping of sewage sludge at sea.
5.1.8 The water quality in Dublin Bay and the surrounds has been assessed for several years and is being maintained or improving with the exception of the Tolka Estuary which has recently gone from the eutrophic status of “Intermediate” to “Potentially Eutrophic” (EPA, 2011)

5.1.9 The dredging operations have previously not reported any issues with water quality. The dredging operator is subject to Standard Operating Procedure under the Dublin Port Environmental Management System. The technique employed in dredging releases a minimum of sediment and the disposal mechanism and capping will ensure that 97% of the material is settled within sixteen minutes of the disposal. The tidal regime within Dublin Bay leads to a north to south current being generated therefore any remaining suspended sediment in the vicinity of the Buford Bank dump site will be transported away from the SACs. Therefore, there are unlikely to be any significant effects on any of the qualifying features of the SACs given the dynamic environment of the Bay, the duration and position of the operations in relation to the Sites the quantities of potential sediment released and the types of intertidal biota potentially affected which have developed to withstand the Bay’s environment.

5.1.10 The bird interest of the North Bull Island SPA (Site code: 004006), South Dublin Bay and River Tolka Estuary SPA (Site Code 004024) and Howth Head Coast SPA (Site code: 004113), have two potential pathways which could possibly affect them through the trophic interactions of the Bay’s ecosystem and potential bioaccumulation of the toxins through the food chain.

1. Wading birds which feed on sediment re-workers and filter feeders at the detritovore level within the intertidal zone.

2. Birds which feed on fish at the secondary or tertiary trophic level either directly as divers, those which are clepto-parasitic on divers and feed on their catch or those birds which scavenge dead fish.

5.1.11 In 2006 toxicological testing was undertaken, comprising two types of tests, of the sediments in Area A (see Appendix E of the Dumping at Sea Permit Supporting Information). In the first test the organism Vibrio fischeri was used for assessing the acute effects and was exposed to the porewater from the sediments sampled, for periods of 5, 15 and 30 minutes and the percentage light inhibition was recorded. In an optimum population density, Vibrio fischeri will illuminate, and as such the percentage light inhibition indicates reduced population density (which can indicate mortality in the population). The results of these test indicate an initial reduction in luminescence at 5 minutes exposure (positive numbers) while the 15 and 30 minutes results (negative numbers) indicate a recovery of the population density. This shows some minimal acute toxicity of the pore water, though not of significant levels.
5.1.12 The second test used *Corophium volutator* which tests the effects on amphipods or sediment reworkers (i.e. marine organisms that process sediment). This test involves exposure to the sediment for a period of 10 days to record mortality. The results showed no significant mortality and recorded levels of less than 8%. *Corophium sp.* are a good indicator of the effects at the base of food chains which could have implications for higher trophic levels such as birds within an ecosystem. The tests obviously do not include the dynamic system in which the dumping will be undertaken, the dilution effects of this tidal system or the effects of the capping mitigation which would minimise any effects in the real environment. The results of the toxicity testing indicate that there are no implications from the dredging and disposal of the materials on the supporting features of the SPAs.

5.1.13 Area B is categorised Class 1 and therefore no additional toxicological analysis was deemed necessary. Further toxicity testing will be undertaken in year 3 of this 6-year dredging plan. Seven of the silt samples collected for chemical analysis (see section 2.2.2 of the Dumping at Sea Permit Supporting Information) will also be subjected to toxicological testing. The locations of these seven samples were agreed with the Marine Institute and are detailed in Appendix D of the Dumping at Sea Permit Supporting Information.

5.1.14 The conservation objectives for the SPAs relate mainly to the maintenance of the good bird populations that come to the area to spend the winter and to breed. Also, the relationship between nutrient and species composition is not a purely causal one as Macdonald (2006 pp8) states ‘Shorebirds in tidal areas generally benefit from anthropogenic nutrient inputs. Although the invertebrate community composition may shift radically, abundance is increased. Historically, bird populations have risen in estuaries where sewage inputs have increased, although population declines have not been observed in all situations where inputs have been reduced.’

5.1.15 A notable effect on the bird numbers within the Dublin Bay is not anticipated from the dredging and therefore they are unlikely to have a significant effect on the conservation objectives of the SPAs.

5.1.16 The SPA selection features for birds will not be significantly affected by the dredging operation.

5.1.17 As an example of a bird species feeding at the lower trophic sediment re-worker level which can be used as an example for other bird species in other SPAs potentially affected by the dredging activities; redshank feed mainly on the amphipod *Corophium volutator* (Goss-Custard1977). The relationship between the presence of this amphipod and redshank tends to be positively correlated with respect to prey biomass and bird density in feeding areas (Goss-Custard 1970). The amphipod is a species abundant in eutrophic conditions (Macdonald 2006) and which is also thought to be at the base of the food web for fish species which are the food source for other bird species. As the water quality of
the Bay will not be significantly changed by the maintenance dredging operation there will also be no change to amphipod population within the Bay (Morin & Lawler 1995). Therefore, the food web architecture and carrying capacity of the Bay with respect to changes that can be attributed to the dredging operation, will not be altered (Hall & Raffaelli 1995). This is supported by the trends of bird populations in the Bay as reported by Merne (2008). Hence, there will be no effect to selection features of the SPAs and the conservation objectives for the SPAs will be maintained for all their selection features.

5.1.18 The kittiwake is the qualifying interest of Howth Head Coast SPA and a direct feeder on fish. It can be used to assess the implications for other fish feeding bird species in other SPAs potentially affected by the dredging activities. Marine water quality in the vicinity of the activities namely the deposition of sediment re-suspended by the dredging or dumping, could potentially, affect the sandeel (*Ammodytes tobianus*) populations one of the main food sources of the kittiwake. *Ammodytes tobianus* is the most abundant species of sand eel found in Irish waters. Each female produces 4000-20,000 eggs, which hatch after a few weeks. Their diet consists of zooplankton and some large diatoms as well as worms, small crustaceans and small fish. However, due to the quantities of material released by the dredging activities and disposal and the lack of implication for the water quality no effects on this prey species have been identified and subsequent minimal effect on the trophic architecture of the Bay (Morin & Lawler 1995). Therefore subsequent implications for kittiwake are also minimal.

5.1.19 Cumulative Impacts: There are no other disposal sites in the vicinity of Dublin Port or the Burford Bank site currently licensed and the disposal of the material will be subject to Standard Operating Procedure under the Dublin Port Environmental Management System. There may be a possibility of Dun Laoghaire Port / Howth Harbour dredging and using Burford Bank site but liaison between the parties and scheduling of disposal so as not to coincide will preclude any in-combination effects. DPC will liaise with the relevant parties to ensure that no simultaneous dumping takes place in order to avoid such cumulative impacts.

5.1.20 The implications of potential project impacts on the designated features and on the structure and function of the Natura 2000 sites are assessed within the following reporting matrix using guidance from EC (2002).
Dublin Port Company
Dumping at Sea Permit Supporting information
Appropriate Assessment Stage One: Screening

5.2 Screening matrix SPAs

Table 5.1 Screening for Potential Effects on North Bull Island & South Dublin Bay/ River Tolka Estuary SPA

<table>
<thead>
<tr>
<th>Natura 2000 Site under Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Bull Island SPA (Site code: 004006)</td>
</tr>
<tr>
<td>South Dublin Bay and River Tolka Estuary SPA (Site Code 004024)</td>
</tr>
</tbody>
</table>

These two SPAs have been screened simultaneously due their proximity to each other and the similarities between their conservation interests and objectives (See Section 4.2 & 4.3).

Assessment Criteria:

*Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site*

The project comprises the following relevant activities:

- Maintenance dredging of the navigable channels, berths and docks at Dublin Port every 18 months within the River Liffey Estuary (Dublin Harbour); and
- Disposal of dredge spoil including Class 2 Restricted materials.

*Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:*

- Size and scale
- Land-take
- Distance from the Natura 2000 site or key features of the site
- Resource requirements
- Emissions
- Excavation requirements (e.g. impacts of local hydrogeology)
- Transportation requirements
- Duration of construction, operation etc.

Dredging and disposal activities are proposed to be undertaken every 18 months.

There will be no dredging or dumping activities within the footprint of the North Bull Island SPA. This SPA is located:

- 0.0 km NE from the proposed dredging site; and
- 4.4 km NW from the proposed dumping site.

There will be no dredging or dumping activities within the footprint of the South Dublin Bay and River Tolka Estuary SPA.
Dublin Port Company
Dumping at Sea Permit Supporting information
Appropriate Assessment Stage One: Screening

Tolka Estuary SPA. This SPA is located:
- 0.0 km NE from the proposed dredging site; and
- 7.0 km NW from the proposed dumping site.

Sediment plumes arising from the dredging and dumping activities could introduce sediments into the marine water column. This sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these activities.

Some re-suspended sediment could be deposited within the Natura 2000 sites it would have to travel 4.4/7.0 km from the dredge spoils dump site (Buford Bank) and 2 km from the proposed dredging activities.

Potential Disturbance to species supported within the Natura 2000 environment due to noise generated during the dredging and dumping operations.

Other known users of the Burford Bank dumpsite include:
- Dublin City Council; and
- Dun Laoghaire Harbour.

Describe any likely changes to the site arising as a result of:
- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value (e.g. water quality, etc.)

1. There will be no reduction to the habitat area of either Natura 2000 sites.

2. As the birds of the estuary are habituated to the normal Port operations and vessel movements within the estuary including dredging no disturbance to feeding overwintering birds is expected and no impact on the Site's bird populations would arise. Noise generated from the dumping activities would not impact the feeding birds as this activity is over 4 km from the boundary of the Natura 2000 sites.

3. The will be no habitat fragmentation as a result of the dredging and dumping activities as the proposed dredging and dumping activities will be outside the footprint of the SPAs and will not restrict the movement of any species of conservation interest.

4. The deposition of sediment re-suspended by the dredging or dumping activities, potentially, could affect benthic fauna species within the intertidal areas inside and outside the Natura 2000 Sites. This could potentially alter the food resource density and diversity for wintering wildfowl and waders and result in a change in bird populations. This affect could be increased...
if the sediment contained high levels of contaminants/pollutants.

5. Localised sediment plumes arising from the dredging activities will introduce sediments into the surrounding marine water column. These sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these dredging activities namely:
   - Increased turbidity - this increased turbidity results in a decrease in the depth that light is able to penetrate the water column;
   - Chemical changes occurring if the sediment plume can change the physiological conditions by reducing dissolved oxygen (DO) levels in the water; and
   - The introduction low levels of contaminated sediment into the marine environment, particularly relevant during dredging activities within “Area A”.

6. Sediment plumes arising from the dumping activities will introduce sediments into the marine water column. These sediment plumes could result in a variety of effects to the marine water quality in the vicinity of the dumping activities namely:
   - Increased turbidity - this increased turbidity results in a decrease in the depth that light is able to penetrate the water column;
   - Chemical changes occurring if the sediment plume can change the physiological conditions by reducing dissolved oxygen (DO) levels in the water; and
   - The introduction of low levels of contaminated sediment into the marine environment, as a result of the particularly relevant in relation to spoil being dumped from “Area A”.

7. Decreased water quality could result in the diminishment of habitat quality.

8. Impacts from the dumping of dredge spoils could be increased as a result of other parties utilising the Buford Bank dumping site.

### Describe any likely impacts on the Natura 2000 Site as a whole in terms of:
- Interference with the key relationships that define the structure and function of the site
- Interference with key relationships that define the function of the site

The key relationship within the Natura 2000 sites is the trophic interactions and relationships which exist between the benthic fauna and the species of conservation interest i.e. the birds.

The structure and function of intertidal feeding habitats inside and outside the Natura 2000 site could be affected by the re-suspension and deposition of sediment due to dredging activities, which would contain contaminants during dredging activities carried out within Area A). This could affect bird populations in the short to long-term e.g. shelduck, oystercatcher and the black-tailed godwit.

The structure and function of intertidal feeding habitats inside and outside the Natura 2000 site could be affected by the re-suspension and deposition of sediment due to dumping activities (which would
Dublin Port Company
Dumping at Sea Permit Supporting information
Appropriate Assessment Stage One: Screening

contain contaminants from dredged Area A). This could affect bird populations in the short to long-term e.g. shelduck, oystercatcher and the black-tailed godwit.

Provide indicators of significance as a result of the identification of impacts set out above in terms of:

- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Loss
- Change to key elements of the site (e.g. water quality, hydrological regime, etc)

1. There will be no reduction in habitat area as a result of the proposed dredging and disposal options therefore no significant impacts are envisaged.

2. Disturbance to feeding birds key species listed in section 4.2 will not arise as a result of the operation of the dredging and dumping activities as this area currently operates as a busy shipping port and the distances from the dumping activities to the Natura 2000 sites.

3. There will be no species fragmentation to the Natura 2000 sites species of conservation interest as a result of the proposed dredging and dumping activities as these activities are outside the footprint of the Natura 200 sites and will not restrict the movement of species of conservation interest.

4. There will be no direct loss of habitat or species within the Natura 2000 sites as a result of the proposed dredging and dumping operations.

5. The deposition of sediment re-suspended by the dredging operations, is unlikely to affect the benthic fauna species within the intertidal areas inside and outside the Natura 2000 sites. Therefore, the food resource density and diversity for wintering wildfowl and waders will not alter and consequently, there is unlikely to be a change in bird populations as a result of the dredging operations (see section 5.1 above).

6. The deposition of sediment re-suspended by the dumping operations, is unlikely to affect the benthic fauna species within the intertidal areas inside and outside the Natura 2000 sites. Therefore, the food resource density and diversity for wintering wildfowl and waders will not alter and consequently, there is unlikely to be a change in bird populations as a result of the dumping operations (see section 5.1 above).

Describe from the above those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.
Dublin Port Company
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It has been concluded that there are no likely significant effects due to the re-suspension and deposition of sediment due to dredging activity.

It has been concluded that there are no likely significant effects due to the re-suspension and deposition of sediment due to dumping activity.

Outcome of screening stage (AA required / not required)

AA not required
Dublin Port Company
Dumping at Sea Permit Supporting information
Appropriate Assessment Stage One: Screening

Table 5.2 Screening for Potential Effects on Howth Head Coast SPA

<table>
<thead>
<tr>
<th>Natura 2000 Site under Consideration:</th>
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</thead>
<tbody>
<tr>
<td>Howth Head Coast SPA (Site code: 004113)</td>
</tr>
</tbody>
</table>

Assessment Criteria:

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site

The project comprises the following relevant activities:

- Maintenance dredging of the navigable channels, berths and docks at Dublin Port every 18 months within the River Liffey Estuary (Dublin Harbour);
- Disposal of dredge spoil including Class 2 Restricted materials.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

- Size and scale
- Land-take
- Distance from the Natura 2000 site or key features of the site
- Resource requirements
- Emissions
- Excavation requirements (e.g. impacts of local hydrogeology)
- Transportation requirements
- Duration of construction, operation etc.

There will be no dredging or dumping activities within the footprint of the Howth Head Coast SPA. The SPA is located:

- 14.0 km NE from the proposed dredging site; and
- 3.5 km NW from the proposed dumping site.

Localised sediment plumes arising from the dredging activities will introduce sediments into the surrounding marine water column. This sediment plumes could result in a variety of effects to the marine water quality in the vicinity of the dredging activities.

Sediment plumes arising from the dumping activities will introduce sediments into the marine water column. This sediment plumes could result in a variety of effects to the marine water quality in the vicinity of the dumping activities.

Some re-suspended sediment could be deposited within the site which would have to travel 3.5 km from the dump site and 14.0 km from the dredging activities.
Dublin Port Company
Dumping at Sea Permit Supporting information
Appropriate Assessment Stage One: Screening

Potential Disturbance to species supported within the Natura 2000 environment due to noise generated during the dredging and dumping operations.

Other known / potential users of the Burford Bank dumpsite include:
- Dublin City Council; and
- Dun Laoghaire Harbour.
- Howth Harbour

<table>
<thead>
<tr>
<th>Describe any likely changes to the site arising as a result of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Reduction of habitat area</td>
</tr>
<tr>
<td>- Disturbance to key species</td>
</tr>
<tr>
<td>- Habitat or species fragmentation</td>
</tr>
<tr>
<td>- Reduction in species density</td>
</tr>
<tr>
<td>- Changes in key indicators of conservation value (e.g. water quality, etc.)</td>
</tr>
</tbody>
</table>

1. There will be no reduction in the habitat area of Howth Head Coast SPA.

2. The distance from the dredging and dumping activities means that there will be no disturbance to the Kittiwake the only species of conservation interest in the Natura 2000 due to noise generated from the dredging/dumping.

3. There will be no habitat fragmentation as a result of the dredging and dumping activities.

4. Sediment plumes arising from the dredging activities will introduce sediments into the surrounding marine water column. The sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these activities namely the deposition of sediment re-suspended by the dredging potentially, could affect the sandeel (*Ammodytes tobianus*) populations one of the main food sources of the kittiwake. *Ammodytes tobianus* is the most abundant species of sand eel found in Irish waters. Each female produces 4000-20,000 eggs, which hatch after a few weeks. Their diet consists of zooplankton and some large diatoms as well as worms, small crustaceans and small fish. However, due to the quantities of material released and the lack of implication for the water quality (see section 5.1 above) and subsequent minimal effects on the trophic architecture of the Bay the effect on this prey species and subsequent implications for kittiwake are also minimal.

5. Sediment plumes arising from the dumping activities will introduce sediments into the marine water column. The sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these activities namely the deposition of sediment re-suspended by the dumping, potentially, could affect the sandeel (*Ammodytes tobianus*) populations one of the main food sources of the kittiwake. *Ammodytes tobianus* is the most abundant species of sand eel found in Irish waters. Each female produces 4000-20,000 eggs, which hatch after a few weeks. Their diet consists of zooplankton and some large diatoms as well as worms, small
crustaceans and small fish. However, due to the quantities of material released and the lack of implication for the water quality (see section 5.1 above) and subsequent minimal effects on the trophic architecture of the Bay the effect on this prey species and subsequent implications for kittiwake are also minimal.

6. **Describe any likely impacts on the Natura 2000 Site as a whole in terms of:**
   - Interference with the key relationships that define the structure and function of the site
   - Interference with key relationships that define the function of the site

The key relationship within the Natura 2000 is the trophic relationships that exists between the fish species (particularly the sandeel) and the kittiwake the only species of conservation interest for the Natura 2000 site. However, the implication from the dredging and disposal activities on this relationship is minimal (see section 5).

**Provide indicators of significance as a result of the identification of impacts set out above in terms of:**
- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Loss
- Change to key elements of the site (e.g. water quality, hydrological regime, etc)

1. There will be no reduction in habitat area as a result of the proposed dredging and disposal options therefore no significant impact.

2. Disturbance to feeding birds key species listed in section 4.4 will not arise as a result of the operation of the dredging and dumping activities as this area currently operates as a busy shipping port.

3. There will be no species fragmentation to the Natura 2000 site species of conservation interest as a result of the proposed dredging and dumping activities.

4. There will be no direct loss of habitat or species within the Natura 2000 site as a result of the proposed dredging and dumping operations.

5. The deposition of sediment re-suspended by the dredging operations, potentially, could affect fish species such as the sandeel outside the Natura 2000 site, which could alter the food resource density and diversity for the kittiwake populations. However, this is not identified as significant (see section 5.1 above).

6. The deposition of sediment re-suspended by the dumping operations, potentially, could affect fish species such as the sandeel outside the Natura 2000 site, which could alter the food resource density and diversity for the kittiwake populations.
resource density and diversity for the kittiwake populations. However, this is not identified as significant (see section 5.1 above)

Describe from the above those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.

It has been concluded that there are no likely significant effects due to the re-suspension and deposition of sediment due to dredging activities.

It has been concluded that there are no likely significant effects due to the re-suspension and deposition of sediment due to dumping activities.

Outcome of screening stage (AA required / not required)

AA not required
5.3 Screening matrix SACs

Table 5.3 Screening for Potential Effects on North Dublin Bay Special cSAC

<table>
<thead>
<tr>
<th>Natura 2000 Site under Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dublin Bay Special cSAC (Site Code: 000210)</td>
</tr>
<tr>
<td>South Dublin Bay cSAC (Site Code 000210)</td>
</tr>
</tbody>
</table>

These two cSACs have been screened simultaneously due their proximity to each other and the similarities between their Qualifying Interest and Conservation Objectives (See Section 4.5 & 4.6).

Assessment Criteria:

**Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site**

The project comprises the following relevant activities:

- Maintenance dredging of the navigable channels, berths and docks at Dublin Port every 18 months within the River Liffey Estuary (Dublin Harbour); and
- Disposal of dredge spoil including Class 2 Restricted materials.

**Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:**

- Size and scale
- Land-take
- Distance from the Natura 2000 site or key features of the site
- Resource requirements
- Emissions
- Excavation requirements (e.g. impacts of local hydrogeology)
- Transportation requirements
- Duration of construction, operation etc.

There will be no dredging or dumping activities within the footprint of the North Dublin Bay cSAC. The cSAC is located:

- 1.6 km NE from the proposed dredging site; and
- 5.9 km NW from the proposed dumping site.

There will be no dredging or dumping activities within the footprint of the South Dublin Bay cSAC. The cSAC is located:

- 1.0 km NE from the proposed dredging site; and
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- 8.8 km NW from the proposed dumping site.

Sediment plumes arising from the dredging and dumping activities will introduce sediments into the marine water column. This sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these activities.

Some re-suspended sediment could be deposited within the site which would have to travel 6 km from the dump site and 1 km from the dredging activities.

Describe any likely changes to the site arising as a result of:
- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value (e.g. water quality, etc.)

1. There will be no reduction in the habitat area of North Dublin Bay cSAC or the South Dublin Bay cSAC as a result of the proposed dumping or dredging activities.

2. There will be no habitat fragmentation as a result of the dredging and dumping activities.

3. Localised Sediment plumes arising from the dredging activities will introduce sediments into the surrounding marine water column. This sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these activities.

4. Sediment plumes arising from the dumping activities will introduce sediments into the marine water column. This sediment plumes could result in a variety of effects to the marine water quality in the vicinity of these activities.

5. These short-term increases in the level of suspended sediment can give rise to changes in water quality as above which in turn can have an effect on marine flora and fauna, both favourably and unfavourably, such as increased turbidity and the possible release of organic matter, nutrients and or contaminants depending upon the nature of the material in the dredging area.

Describe any likely impacts on the Natura 2000 Site as a whole in terms of:
- Interference with the key relationships that define the structure and function of the site
- Interference with key relationships that define the function of the site

The key relationship within the Natura 2000 is the quantity and quality of the available water. The Annex I habitats for which these Natura 2000 sites area designated are coastal transitional and intertidal water dependant habitats.
These short-term increases in the level of suspended sediment can give rise to changes in water quality as above which in turn can have an effect on marine flora, both favourably and unfavourably, such as increased turbidity and the possible release of organic matter, nutrients and or contaminants depending upon the nature of the material in the dredging area. However, as described in section 5.1 these effects are unlikely to be significant.

Provide indicators of significance as a result of the identification of impacts set out above in terms of:

- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Loss
- Change to key elements of the site (e.g. water quality, hydrological regime, etc)

1. There will be no reduction in habitat area as a result of the proposed dredging and disposal options therefore no significant impact.

2. The will be no species fragmentation to the Natura 2000 sites as a result of the proposed dredging and dumping activities as these are outside the footprint of the Natura sites.

3. There will be no direct loss of habitat or species within the North Bull Island SPA as a result of the proposed dredging and dumping operations.

4. The short-term increases in the level of suspended sediment due to the dredging activities will not have a significant effect on the qualifying features of the SAC.

5. The short-term increases in the level of suspended sediment due to the dumping activities will not have a significant effect on the qualifying features of the SAC.

Describe from the above those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.

It has been concluded that there are no likely significant effects resulting from the dredging and disposal activities.

Outcome of screening stage (AA required / not required)

AA not required
6 Screening Conclusion & Statement

6.1.1 Based on the screening assessment completed above it can be conclude that neither the proposed dredging or dumping activities will result in likely significant direct, indirect or cumulative effects on the structure, function and conservation objectives for any of the identified Natura 2000 sites. Therefore it is concluded that a Natura Impact Statement (NIS) (Stage 2 of the AA process) is not required.
References


