The Department of Defence proposes maintenance dredging works at the Naval Base, Haulbowline, Co. Cork. The dredging works will consist of dredging 14,000m$^3$ from the inner basin at the naval base (Area A, Foreshore Approval Map) and 3000m$^3$ from an approach channel (Area B, Foreshore Licence Map 1) to 5.5m below chart datum. The dredged spoil will be dumped at sea (Dump Site, Foreshore Licence Map 2).

The works are required to ensure the proper and continued operation of the Naval Base and are in the public interest. The works will be completed by Trailer Suction Hopper Dredging with some subsequent bed leveling.

The inner basin at Haulbowline is privately owned foreshore so approval under section 10 of the Foreshore Act is required. The approach channel and dump site are on state owned foreshore so a licence under Section 3 of the Foreshore Act is required. Dumping at Sea Permit Reg No S0005-02 has been granted by the EPA for the Loading and Dumping.

**Recommendation**

I recommend approval of this application subject to,

- The following maps shall be attached to and referenced in the consent document,
  - Foreshore Approval Map, Drg.No.: DRAWING 01 Revision: D02, Date: 12/09/2016
  - Foreshore Licence Map 1, Drg.No.: DRAWING 02 Revision: D02, Date: 12/09/2016
  - Foreshore Licence Map 2, Drg.No.: DRAWING 03 Revision: D02, Date: 12/09/2016

- The dredging works shall be conducted in accordance with documents submitted and specifically drawings,
  - Foreshore Licence Application Scope of Works, Drg.No.: DRAWING 04 Revision: Draft, Date: 08/10/2015

- A valid Dumping At Sea Permit for the dredging works shall be in place for the duration of the works and a copy of the permit shall be submitted to this department prior to the works proceeding.

- The Department shall be notified 2 weeks prior to any works proceeding.

**Inland Fisheries Ireland**

Observations of 13/2/2016 - No further comments to make

Observations of 9/2/2016 - “This application and associated documentation is in respect of maintenance dredging at Haulbowline Naval Base and the dumping of the dredged material at the Port of Cork Dump Site.

No structures will be erected in the proposed works.
The proposed maintenance dredging is necessary for maintaining access for the Irish Naval Fleet and auxiliary vessels to the Inner Harbour in the Naval Base, Haulbowline Island, Cork. The total size of areas for dredging is 15,000 m²

No interactions with the public will take place through the proposed works. The proposed area for Maintenance dredging is not used by members of the public.

Appropriate Assessment screening report:

There was a history of sediment contamination at this site previously and an exclusion area of ‘no dredge’ was established in a previous round of dredging in 2011. A set of 7 representative sediment samples were analysed as part of the present application, with sampling site locations designed by the Marine Institute. Sediment sampling was undertaken on April 16th 2015.

The results from the sediment survey indicated that:

“For the results of the above sampling, levels above the Irish Upper Levels for zinc were seen at 2 sites. HCB and g-HCH (Lindane) values were above the Irish Upper Levels at 4 sites. The Irish Lower levels were exceeded at one or more of the sample locations for all parameters apart from mercury and cadmium. Sediment with metal concentrations below the Irish Lower Level represents sediment with “no contamination” (Marine Institute, 2006).

However, as Haulbowline Island is historically linked with industrial activity Irish Upper Levels would be expected to be exceeded. As the Lower Level was exceeded in many of the sampling locations, this would indicate the sediment to be marginally contaminated and would not pose a significant threat to the qualifying interests of the SPA or SAC in terms of water quality.”

The conclusions stated above would not appear to be consistent with the outcome of the sediment analysis. Two of 7 sites had zinc levels above the Irish Upper Limit and 4 of 7 sites had HCB and g-HCH values above the Irish Upper Limit.

These levels of contamination are not addressed in the AA report. The question arises as to whether this level of contamination can be permitted in sediment that is to be dumped at sea and this must be addressed by the applicant.

The comment in regard to ‘marginal contamination’ of many of the samples and that this would not pose a significant threat to qualifying interests in the Natura sites - may be correct. However, the release of such contaminant material into the food chain in Cork Harbour, with potential for ingestion and bioaccumulation up to fish - that may be consumed by humans – must be considered.

IFI sees a requirement for a more detailed and expert opinion in regard to the sediment contamination report and in regard to any safeguards or exclusion zone, etc. measures that may be needed when handling the sediment, in view of the levels reported in documents supplied.
Documentation provided indicates that the method of dredging will be a trailer suction hopper dredger (TSHD). No overflow of material from the dredger will be allowed. This latter proposal is very positive and should be a condition of any foreshore licence that may be granted.”

**Marine Institute**

On foot of further clarification regarding DAS permit the Marine Institute has made the following observations;

In January 2017 the EPA granted a Dumping at Sea Permit to the Dept of Defence in which they specified 2 exclusion zones (see Schedule A of the Permit) at which the loading and dumping of maritai was prohibited due to elevated concentrations of heavy metals at those locations. These exclusion zones delimit the 2 location with heavily contaminated sediments that I mentioned in my earlier obs to Pat.

On condition that no dredging is permitted in these 2 exclusion zones I have no objection to a Foreshore Licence being granted for the dredging of the remainder of the area in question.

Previous comments by the Marine Institute, of 17/2/2016 –

It is intended that the dredging will be carried out using a trailer suction hopper dredger and that the dredged material will be disposed of at the existing licenced dump site located south of Roche’s Point. The disposal of the material at sea, as proposed, is subject to the granting of a Dumping at Sea Permit by the EPA.

It is noted that the area was previously dredged in February 2011 and the material disposed of at the same dump site as is intended for use on this occasion.

The applicant has submitted the results of chemical analysis of samples of the material to be dredged that were collected on April 16th 2015 at a total of 7 locations in the proposed dredge area. The sampling locations and results of the analysis are given in Appendix A of the document entitled “Impact on the receiving environment Appropriate Assessment submitted as Attachment A.1 to the Application Form. The results show concentrations of Zinc above the Irish Upper Levels at location NV4 and NV6 as well levels of Lindane and HCBs above the Irish Upper Levels at locations NV3, NV4, NV5 and NV7.

These results indicate heavily contaminated material which may not be suitable for “unconfined” disposal at sea as proposed. The area with elevated concentrations, particularly at NV3 and NV4, appears to be similar to the area where heavily contaminated material was recorded in 2010 prior to the dredging campaign in February 2011. In this instance, an exclusion zone within which the loading and subsequent dumping of dredged material was prohibited was applied as a Condition of the Dumping at Sea Permit issued by the EPA. A similar exclusion zone may be appropriate in this case.

While the disposal of dredge spoil at sea is a matter for consideration, and final determination, by the EPA the comments from the applicant on potential alternative management arrangements for dealing with the heavily contaminated material, which could include am exclusion zone, should be sought.”
**Marine Survey Office**

“This office has no objections from a navigational viewpoint to the above application.

- The applicant is required to arrange with this office (Marine Survey Office) the publication of a Marine Notice prior to the commencement of operations.
- Consultation with the Port of Cork harbour Authority is required prior to the commencement of any works.
- In addition, the Port of Cork Harbour Authority should also promulgate a Port Marine Notice.
- Certification for vessels to be considered for the above works should be forwarded to the MSO in ample time for assessment regarding compliance with national and international legislation. In addition, any vessel operating outside the harbour limits must apply for an Irish Load Line Certificate to the MSO Dublin. Where a Department observer is required to monitor the dump site, a passenger boat licence may also be required.”

**Cork County Council**

Please see below the observations of Ballincollig Carrigaline Municipal Area (BCMA) and the Coastal Management and Flood Projects Department (CMFPD) of Cork County Council:

**BCMA:**

“The Area Office has no objection.”

**CMFPD:**

“Having reviewed the foreshore Licence application, the CMFPD has no comments or objections on this application.”

**Department of Agriculture, Food and the Marine**

“Please note that the Department has no comment to make with regard to the above application.”

**National Parks and Wildlife Service (NPWS):**

“In the documentation forwarded to the Department of Arts, Heritage and the Gaeltacht, supporting the Foreshore Consent application, it is noted that there has been an evaluation completed in relation to cetaceans and seals.

However, this document which is critical to evaluating the potential impact of the proposed development has not been received.

In order to ensure that the proposed activity does not have a negative interaction with those species the completed risk assessment should include the following information in order that the applicant can address the full legal requirements of the Habitats Directive and Wildlife Act.

- A detailed risk assessment for the proposed development’s construction/operation phases, and measures designed to reduce any risk to Annex IV and Fifth Schedule species should be provided by the Applicant.
Such assessments should include consideration of potential impacts from the operation of associated vessels, incorporating as appropriate:

a) The risk of collision with protected cetaceans and seals;

b) Direct disturbance or injury of cetaceans and seals due to underwater noise, and intensified motorised vessel/aircraft activity;

c) Potential disruption of a critical period in the life cycle of those species and

d) Secondary impacts due to localised disruption of normal ecological activity.

The risk evaluations provided should contain sufficient detail including *inter alia*

i. Underwater noise characteristics at source (i.e. sound pressure levels, sound exposure levels, frequency, bandwidth, duration of exposures) and information concerning propagation in air/water.

ii. The identification, where appropriate, of measures required to mitigate such impacts as may be identified.

- It is recommended that suitably qualified marine mammal ecologists should be involved in undertaking relevant assessments.”

**Underwater Archaeology Unit:**

“The Department have no further Underwater Archaeology comments on the above application.”

**Sea Fisheries Protection Authority**

“Please note that the SFPA has no issues regarding the application for maintenance dredging in the Naval Base from a sea fisheries perspective”