

From: [Terry McMahon](#)
To: [Grainne Power](#)
Cc: [Tara Higgins](#)
Subject: RE: Dublin Port Company S0024-01 Dumping at Sea permit application
Date: 16 May 2016 16:26:12
Attachments: [image001.png](#)

I refer to your e-mail of 23rd February last in respect of the provision of “Significant Further Information” by Dublin Port Company, relating their Dumping at Sea permit application in respect of the Alexandra Basin Redevelopment Project (Register number S0024-01).

The further information relates to a revision to Section 2.1.2 of the earlier Natura Impact Statement in which revised proposals for the Dumping and Capping of Class 2 sediments are presented.

The revised proposal involves:

- Use of uncontaminated granular material (gravel and coarse sand) dredged from within the capital dredging scheme’s footprint to form a series of bunds, or Confined Aquatic Disposal (CAD) cells, at the licensed offshore disposal site located to the west of the Burford Bank
- The gravel and coarse sand will be dredged using a conventional trailer suction hopper dredger, or equivalent, and accurately placed on the seabed by conveying the dredged material through the dredgers pipeline working in reverse with a specially fitted head to spread the material at, or close to, the seabed. Alternative methods may be employed such as a gravity fed downpipe (tremie) or a closed calm-shell bucket but in all cases the dredged material will be confined in order to accurately place the material on the seabed. This placement technique will be used to form a series of bunds of approximately 3.0m in height. The base width of the bund will be approximately 9.0m wide with side slopes of 1 in 1.5. It is envisaged that the up to six CAD cells will be formed from the bunds requiring approximately 90,000m³ of granular material. The typical dimensions of each CAD cell are approximately 430m by 200m.
- The integrity of the CAD cells will be checked using a Remote Operating Vehicle (ROV) prior to the placement of Class 2 sediments within the confines of the cells.
- Dredged Class 2 material will be transported to the disposal site in either a trailer suction hopper dredger or barge. The dredged material would then be placed on the seabed within the confines of a CAD cell by conveying the dredged material through the dredgers pipeline working in reverse with a specially fitted head to spread the material at, or close to, the seabed in order to minimise resuspension of the dredged material. Alternative methods may be employed such as a gravity fed downpipe (tremie) or a closed calm-shell bucket but in all cases the dredged material will be confined in order to accurately place the material on the seabed and to minimize losses to the water column during the placement operations. The Class 2 sediments will be placed within the confines of a CAD cell up to a maximum compacted level of 2.0m depth. The cells will be filled sequentially. Each cell, as the filling operation is completed, will be capped before moving onto the next cell.
- Following the placement of the Class 2 sediments into a CAD cell, the cell will be initially capped by a 0.7m – 0.8m layer of fine sand. The fine sand capping layer will also be accurately placed on the seabed within the confines of a CAD cell by conveying the dredged material through the dredgers pipeline working in reverse with a specially fitted head to spread the material at, or close to, the seabed. Alternative methods may be employed such as a gravity fed downpipe (tremie) or a closed calm-shell bucket. The cell will be subsequently capped by a further 0.30m – 0.50m layer of gravel/coarse sand of grain diameter greater than 0.6mm. The perimeter of the capped area will then be covered by a final 0.30m layer of gravel to provide extra protection from scouring caused by any local

increases in littoral current velocities. This capping layer may be placed using a traditional surface water discharge via a split-bottom barge or hopper because sufficient accuracy of delivery can be achieved for this heavier gravel and coarse sand material which will fall rapidly to the seabed.

- The integrity of each capped CAD cell will be checked using a Remote Operating Vehicle (ROV).
- To ensure the integrity of the capping layers is managed and maintained as predicted, post-capping monitoring will be undertaken on an annual basis for a 5 year period post dredging. The monitoring programme will comprise bathymetric surveys and Remote Operated Vehicle (ROV) inspections.

The Marine Institute is of the view that, subject to Agency being satisfied with respect to the engineering aspects of the construction and maintenance of the CAD cells, the revised proposal represents a reasonable approach to the management of the Class 2 sediments as part of the Alexandra Basin redevelopment project. The Marine Institute is of the view that in making a final determination on this application the Agency needs to satisfy itself that adequate provision is in place:

1. to prevent release of the Class 2 sediment from within an uncapped CAD cell in circumstances where unforeseen delays in the proposed capping plan may arise e.g. storm event, failure of plant / machinery
2. as contingency in the event that the integrity of any CAD cells is compromised.
3. for adequate frequency of future monitoring surveys of the dump site aimed at ensuring the integrity of the of the caps maintained.

It is noted that It is also intended to put a monitoring programme in place involving the deployment of instrument arrays to the north, south and west of the disposal site. Each device would continuously monitor dissolved oxygen, turbidity, temperature and salinity. The monitoring system will be designed to automatically send text alerts to Dublin Port Company and the dredging contractor in the event that levels recorded exceed those predicted by the modelling results presented within Chapter 9 of Volume 1 of the EIS. The stated purpose of the monitoring programme is to enable corrective action to be taken to ensure best practice is being adhered to at all times. The monitoring system will be integrated into the Water Quality Management Plan for the overall capital dredging scheme. The monitoring buoys will be periodically repositioned to ensure representative data is being captured. The results of the monitoring will be made available to interested stakeholders including members of the public.

The real time monitoring of turbidity as proposed is welcomed. The purpose and usefulness of the real time monitoring of dissolved oxygen, temperature and salinity is, however, unclear given that these parameters are not likely to be significantly impacted / altered by the dumping activity.

Regards

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From: Grainne Power [mailto:G.Power@epa.ie]
Sent: 23 February 2016 09:42
To: DaS Advisory Committee
Subject: Dublin Port Company S0024-01 Dumping at Sea permit application

Dear Sir/Madam

Dublin Port Company, Port Centre, Alexandra Road, Dublin 1 has applied to the EPA for a Dumping at Sea permit in respect of the Alexandra Basin Redevelopment Project, Dumping at Sea permit register number S0024-01.

Significant Further Information has been furnished in respect of this application and is available for inspection on the Agency's website www.epa.ie or at EPA Headquarters, Johnstown Castle Estate, Co. Wexford.

Any person wishing to make a submission or submit observations in respect of this further information should do so in writing to the Office of Environmental Sustainability, EPA Headquarters, P.O. Box 3000, Johnstown Castle Estate, Co. Wexford or by email to licensing@epa.ie by **22 March 2016**.

Submissions received will be forwarded to the applicant for comment and will be published on the Agency's website www.epa.ie.

Yours sincerely



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