

Bea Claydon

From: Tara Higgins
Sent: 30 July 2012 09:37
To: Bea Claydon
Subject: FW: EPA - S0015-02 Dumping at Sea Permit application
Attachments: Drogheda_MI response to EPA.docx

From: margot.cronin@marine.ie
Sent: 18 July 2012 14:57
To: Eve O'Sullivan; Tara Higgins
Cc: Terry McMahon; Francis X O Beirn
Subject: RE: EPA - S0015-02 Dumping at Sea Permit application

Dear Eve / Tara,

Attached please find observations from the Marine Institute regarding the application for a dumping at sea permit from Drogheda Port Company.

If you require clarification on anything, please don't hesitate to contact me:

Best regards,
Margot

From: Eve O'Sullivan [<mailto:e.osullivan@epa.ie>]
Sent: 18 April 2012 13:36
To: DaS Advisory Committee
Subject: EPA - S0015-02 Dumping at Sea Permit application

Good afternoon,

Re: S0015-02 Dumping at Sea Permit Application from Drogheda Port Company

I am writing to advise that Drogheda Port Company has applied to the Agency, on 4 April 2012, for a permit in respect of Drogheda Port, Drogheda, Co. Meath. The request and associated documentation can be accessed on our website after 11am tomorrow at the following link www.epa.ie

The Agency will have regard to any submission/observation you wish to make in relation to this permit application. Submissions/observations can be sent to the undersigned in writing or by email.

You can also set up an RSS Feed to this application, you will then be notified by email alert every time new information is uploaded to this application on our website.

Regards

Eve O'Sullivan
Programme Officer
Office of Climate, Licensing & Resource Use

EVE O'SULLIVAN PROGRAMME OFFICER, OFFICE OF CLIMATE,
LICENSING & RESOURCE USE, EPA, JOHNSTOWN CASTLE ESTATE, CO.

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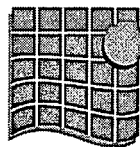
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Is don té atá ainmithe an teachtaireacht seo agus inte tá eolas rúnda. Muna tú an té atá ainmithe níor chóir duit an ríomhphost seo a eis-sheacada, scaipeadh ná a choipáil. Má fuir tú an ríomhphost seo tré thimpist cur a té a sheol é ar an eolas láthaireach tré ríomhphost agus scrios é ó do choras féin. Ní féidir a chintíú go bhfuil ríomhphost gan lucht ná sábhailte de bharr módh seachadadh na ríomhphost. D'fhéadfach sé go ndéanfaí tascradh ar an eolas, go mbeadh sé curtha as rocht, go gcaifí nó go scriosfí é, go mbeadh moill ar, é easnamhach nó go mbeadh víreas curtha leis le linn a sheachadadh. Dá bhri sin ní glacann an té a sheol le aon mhiléan maidir le easnaimh nó butúin in ábhar na teachtaireachta a tharlaíonn le linn a sheachadadh.

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Marine Institute
Foras na Mara

Memo

To: EPA Dumping at Sea Unit
Office of Climate Change, Licensing & Resource Use

From: Marine Institute

Subject: Dumping at Sea application from Drogheda Port Company

Background

Drogheda Port Company has made an application for a Dumping at Sea permit to dispose, over an 8 year period, of a maximum of 1,536,000 tonnes (plus 160,000 annual contingency) of sediments dredged from the River Boyne estuary, river entrance and seaward approaches. The location of the proposed dump sites are shown on Figure 1 entitled "Location of Maintenance Dredging Sites" that accompanied the application. It is proposed to dump the material dredged from the estuary (the channel from Drogheda to sea, including all berths and swing basins) at Dump Site A1 and the remainder of the material from the river mouth and sea approaches at dumped at Dump Sites A2 and A3, (depending on operational conditions) or placed in the offshore dumpsite. A 5 year Dumping at Sea permit, up to February 2013 was previously granted by DAFF for this activity and Site A1 has been used for the dumping of dredge spoil for at least 10 years.

Sediment chemistry

The sediment chemistry results for most of the dredged areas, and for most parameters, are below action level 1, as laid out in the 2006 Guidelines for Assessment of Dredged Material for Disposal in Irish Waters. Samples of sediment taken upstream in the vicinity of the Maxol Terminal and Tom Roe's Point, however, show concentrations (in most cases marginally) exceeding level 1 of cadmium ($0.75 - 0.92 \text{ mg kg}^{-1}$; AL1 = 0.7 mg kg^{-1}), zinc ($182 - 256 \text{ mg kg}^{-1}$ AL1 = 160 mg kg^{-1}) and nickel ($23.7 - 33.1 \text{ mg kg}^{-1}$; AL1 = 21 mg kg^{-1}). The nickel concentrations would not give much cause for alarm as they are only very marginally elevated and are most likely to be a result of geological variation.

Cadmium has been reported at marginally elevated levels since 1999, and possibly earlier. The source appears to be upstream, as concentrations invariably decrease with distance downriver. In 2007, a desk study requested by DCMNR into the causes identified a number of potential sources of cadmium in connection with former and current industrial land-use; the most notable include the town WWTP, historic landfills, surface water runoff from the M1 Motorway, former tailings pond for waste from an old cement factory, former tannery, former gas works, former iron works, former coal yards, tyre repair company and a magnesite plant (including scrap metal disposal and associated on-site landfill). Cadmium concentrations in the sediment appear to be very slightly decreased from results of previous analysis in 2008.

The zinc concentrations from 2008 were also slightly elevated but less so than reported from the 2011 analysis. It is understood that zinc concentrate is exported from Drogheda Port (ref: Drogheda Port website) and it is possible that this may be the source.

It is noted that a sample taken from the southern inshore dumpsite (A3) has a cadmium concentration of 2.73 mg kg^{-1} . This value is associated with a sediment that is 100% sand ($>63\mu\text{m}$ and $<2\text{mm}$), and therefore may be considered representative of the whole sediment, rather than just the lesser fine fraction. Sediment with cadmium at 2.73 mg kg^{-1} may be expected

to demonstrate effects in benthic organisms. In recent years, reported concentrations of cadmium in material that was subsequently dumped was in the region of 0.9 - 1 mg kg⁻¹. This material would have been largely disposed off at the offshore site so, while it seems unlikely the cadmium has originated from the dredged sediment already dumped, it is possible that previous sampling plans were insufficient to highlight the full range of cadmium concentrations.

Fisheries and aquaculture

The proposed southern inshore dumpsite (A3), off Laytown, is located within the Gormanstown / Laytown razor clam fishery area. The material proposed to be dumped at this site is to be dredged from the river entrance and seaward approaches only. It consists of sand in which the determinands tested were below the lower guidance level. Considering the relatively high energy of the area in question, allied with the mobility of razor clams, the impact on the razor clam fishery and the wider marine environment is likely to be negligible. Results of monitoring of shellfish from this location has not shown any non-compliances with the Standards required under the Shellfish Waters Directive.

Proposed Dump sites A1 and A2 are not located within, or adjacent to, any licenced aquaculture production areas or important fish spawning areas and the dumping of dredge spoil as proposed at these sites is therefore not likely to have a significant impact on aquaculture or sea fisheries.

Conclusion

The Marine Institute notes that this application is for a permit to cover an 8-year period. This is for a longer period than permits have been issued in the past which have typically been for a maximum period of 5 years. In determining the duration of the permit the Agency should have regard to the OSPAR Guidelines for the Management of Dredged Material (Agreement 2009-04) particularly with regard to frequency of sampling of dredge spoil.

It is noted that the information provided in the Kirk McCullure Morton Report, 2001 shows that the northern and southern near shore dump sites A2 and A3 have been determined by hydraulic and hydrodynamic computer modelling to be advantageous to aid coastal process and beach re-nourishment. It is the Marine Institute's view that the use of these dump sites, for the disposal of sand dredged from the river entrance and seaward approach should be optimised.

Monitoring

The Marine Institute recommends that:

1. Sampling and chemical analysis of the material to be dredged be carried out at least once over the duration of any permit granted, if valid for eight years.
2. Drogheda Port Company be required to investigate recent sources of zinc to the sediment in general berth area (in the vicinity of the Maxol Terminal and Tom Roe's Terminal). In the event that concentrations continue to increase, then further investigative monitoring to identify and control the source should be undertaken.
3. Drogheda Port Company be required to carry out monitoring studies at the southern inshore dumpsite (A3) with a focus on cadmium concentrations with a view to bringing about a reduction in concentration equivalent to background. In the event that improvements are not noted, then further investigative monitoring to identify the sources should be undertaken.