## Eve O'Sullivan

**Subject:** FW: Comments on drogheda Port sediment
**Attachments:** Comments_Drogheda_2020_mfc.pdf

**From:** Margot Cronin <margot.cronin@marine.ie>
**Sent:** 05 March 2020 19:05
**To:** Ciara Maxwell <c.maxwell@epa.ie>
**Cc:** Terry McMahon <terry.mcmahon@marine.ie>
**Subject:** Comments on drogheda Port sediment

Hi Ciara,

Attached are my comments on the sediment chemistry for Drogheda Port.

All the best, Margot

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To: Ciara Maxwell, EPA

From: Margot Cronin, MI

RE: Drogheda Port Company, Dumping at Sea, eight year permit application

Date: 06 March, 2020

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**Sediment assessment**

This sediment assessment relates to total quantity of approximately 2,816,000 tonnes of material to be dredged from the estuary of the River Boyne and its seaward approaches, over a period of eight years. It includes 30,000 $m^3$ from the river area (including berths and turning area), as well as 90,000 $m^3$ of sediment from the entrance and seaward approaches. The remaining quantities are included as contingency and are unpredictable.

The material is proposed for disposal at two well-established dumpsites; dumpsite A1 is located approx. 4 km northeast of the estuary in approx. 14m depth, while A2 is located in the surf-zone approx. 4m to the north of the mouth of the River Boyne.



Sampling and analysis of the sediment in support of the application were carried out in accordance with recommendations from MI. Seventeen samples were attempted in February 2019; fifteen of which were considered acceptable for analyses.

Quality assurance/CRM results for the relevant parameters were satisfactory, with broadly close to 100% CRM recovery on most determinands.

The sediment is a mix of sand and silt, with coarser sediment including some gravel, predominantly in the outer approaches.

**Comments:**

The sediment is considered largely uncontaminated, with concentrations of most determinands for most samples falling below the lower action levels specified in the Irish Guidelines on Assessment of Sediment (2006).

There is some evidence of low category 2 levels of contamination in some samples, mainly copper and cadmium; for example, one of two samples from the turning area demonstrates low class 2 concentrations levels of cadmium, lead and zinc.

The sediment chemistry is broadly in line with previous results, though concentrations of lead and cadmium in sample 11 (from the turning area) are marginally higher than previously reported.

In line with previous recommendations, I would not consider the sediment chemistry to preclude dumping at sea but, to err on the side of caution, I would recommend that material from the turning area be dredged first and mixed in the barge with clean sediment from further down river, before disposal at dumpsite A1 in 14 m depth. The sediment would subsequently be covered with the remaining sediment, in effect capping it.