

## Note / Memo

HaskoningDHV UK Ltd.  
Industry & Buildings

To: Marine Management Organisation (MMO)  
From: Royal HaskoningDHV  
Date: 18 January 2023  
Copy: Teesworks  
Our reference: PC1084-RHD-SB-EN-NT-EV-1141  
Classification: Project related

**Subject: MLA/2020/00506/2 South Bank Quay Further Information Request 19 Response**

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## 1 Introduction

A variation request (herein referred to as 'MLV2') for the following amendments to marine licence for Phase 1 of the South Bank Quay redevelopment (L/2021//00333/2) was submitted to the Marine Management Organisation (MMO) on 4 October 2022 for determination:

- An additional 231,000m<sup>3</sup> of material to be disposed of at sea;
- An additional 29,000m<sup>3</sup> of material to be dredged from the Tees Dock turning circle;
- An additional 416,000m<sup>3</sup> of material to be dredged from the channel and berth pocket; and
- Minor amendments to the wording of the licensed activity relating to the placement of rock within the berth pocket and the licensed activities relating to dredging to account for dredging tolerances.

Following a period of consultation, MMO have published a Further Information Request (RFI 19) in light of further comments received from their scientific advisers at the Centre for Environment, Fisheries and Aquaculture Science (Cefas). The following Cefas teams provided comments on the materials uploaded in support of MLV2:

- Cefas SEAL (Dredge and Disposal) team;
- Fish and Fisheries team;
- Shellfish team; and
- Benthic team.

This note sets out responses to the comments received from each of the specialist teams within Cefas in turn.

## 2 Response to Cefas SEAL (Dredge and Disposal) team comments

The Applicant can confirm that Cefas' interpretation of the change in dredge and disposal volumes requested under MLV2 compared with the volumes stated on the current marine licence (L/2021/00333/2) are correct, as per the table provided within their comments made in RFI 18.

The specific gravity factors used within the original application (which has therefore been used to convert the varied volumes) are 1.7 for 'clay' (which is representing the geological mudstone and till material) and

1.9 for sand, which is where the discrepancy between Cefas' cubic metres for the dredging activity and cubic meters for the disposal activity (converted from wet tonnes) arises. However, as confirmed in the response to RFI 18, Cefas Table 1 accurately presents the cubic metres for the dredging activity and wet tonnes for the disposal activity and the variation amounts requested.

For clarity, the table setting out the proposed change in dredge and disposal volumes from the current marine licence, together with a breakdown of material types, is presented in the style requested by Cefas within **Table 2.1**.

**Table 2.1 Change in dredge and disposal and material type breakdown requested as part of MLV2.**

Activity	Existing Allowance	Proposed Variation	Extent of Change	Total
<b>Dredging</b>				
Turning Circle	187,000 m <sup>3</sup>	216,000 m <sup>3</sup>	+29,000 m <sup>3</sup>	+445,000 m <sup>3</sup>
Channel and Berth Pocket	715,000 m <sup>3</sup>	1,131,000 m <sup>3</sup>	+416,000 m <sup>3</sup>	
	15.6m bCD	15.9m bCD	+0.3m bCD	
<b>Disposal at sea</b>				
Turning Circle (Sand)	355,300 WT	410,400 WT	+55,100 WT	+355,700 WT
Berth Pocket (Clay)	280,500 WT	987,700 WT	+707,200 WT	
Berth Pocket (Sand)	1,045,000 WT	638,400 WT	-406,600 WT	

### 3 Response to Cefas Fish and Fisheries Comments

Seven actions were identified by MMO for the Applicant to respond to, based on the most recent comments received from Cefas on MLV2. These actions are as follows:

1. MMO require an impact assessment regarding fish / fishery impacts from increased disposal.
2. Please provide information on what proportion of the material is consolidated and non-consolidated clay.
3. MMO require a more detailed reassessment or discussion of how the additional dredged material is likely to compare with the suspended sediment concentrations and plumes modelled within the original EIA. The MMO do not require additional modelling at this time.
4. MMO require clarification whether any additional mitigation (outside of that detailed in condition 5.2.11) associated with dredging activity in proximity to the contaminated material boundary is proposed to minimise the resuspension of contaminated sediments.
5. MMO require clarification whether any mitigation associated with cutter suction dredging (such as shielding or enclosing of the cutter head to contain disturbed sediment) will be used.
6. MMO require additional information to fully understand how the dredging schedule has or will be amended to incorporate the removal of the additional material.
7. MMO require further information on how the South Bank Quay works fit within the wider dynamic environment of development works in the River Tees. An overview or timeline of the project

alongside other relevant ongoing and nearby works with dredging elements would suffice at this stage.

Each of these actions has been responded to in turn within the follow subsections.

### **3.1 Assessment of effects on fish / fisheries from increased disposal**

Please refer to Section 4 of the supplementary 'MLV2 Appraisal of Environmental Effects' (document reference PC1084-RHD-SB-EN-NT-EV-1141) for consideration of the effects on fish and fisheries as a result of increased volumes of dredged material to be disposed of offshore.

### **3.2 Clarification on proportion of consolidated / unconsolidated clay**

Our understanding of the reference in Cefas comments to the presence of 'made ground in areas' is not reflective of what is being requested within Marine Licence Variation 2. The 'made ground' between the 'OSPAR Line' and new quay wall, is to be excavated, and brought back to land and is not to be disposed offshore.

The additional dredge volume requested for the channel and berth pocket as part of Marine Licence Variation 2 is an additional 416,000m<sup>3</sup> of clay. The allocation of 'clay' is made up of Glacial Till and Mudstone, both of which are considered as consolidated material.

### **3.3 Suspended sediment concentrations**

Please refer to Section 4.2 and Section 5.2 of the supplementary 'MLV2 Appraisal of Environmental Effects' (document reference PC1084-RHD-SB-EN-NT-EV-1141) for a commentary on the suspended sediment concentrations anticipated as a result of MLV2 in comparison with that previously modelled (both within the original Environmental Impact Assessment (EIA) Report submitted in support of the original marine licence application and more recent modelling undertaken and submitted in support of the first marine licence variation request 'MLV1').

### **3.4 Clarification on mitigation associated with dredging within proximity to contaminated material**

The scheduling of the activities helps to mitigate the risk of resuspension of the contaminated sediments. This is managed by ensuring that all material within the contaminated boundary defined in Licence Condition 5.2.11 and Schedule 8 is removed prior to the commencement of the landside excavation of the material adjacent to it (between the 'OSPAR line' and the quay wall).

From previous discussions, and agreement with the MMO at progress meetings on 30<sup>th</sup> August 2022 and 29<sup>th</sup> November 2022, excavation of the material between the 'OSPAR line' and the quay wall currently falls outside the MMO licence; it was therefore agreed that this material would be removed and brought to land, under a landside excavation scope of work, as it was not considered dredging.

The material between the 'OSPAR Line' and the new quay wall, will be removed to the agreed levels outlined in the proposal submitted with Marine Licence Variation 2 request, prior to the commencement of the capital dredging works. Once this material, inclusive of all made ground has been recovered to land, it is the material beneath this that is being requested to be dredged and disposed of offshore as part of MLV2.

### 3.5 Clarification on mitigation associated with Cutter Suction Dredging

The additional sediment plume modelling which was included and accepted as part of Marine Licence Variation 1 compares the Cutter Suction Dredger (CSD) technique with those assessed in the EIA.

The description of how a CSD works within the comments on page 5 of the CEFAS comments state “the cutter head works to loosen material by boring through the riverbed in a rotational motion and loosened material is then drawn into a suction pipe.”

This description is correct and in order for the suction pipe to be able to draw the material into the onboard pipe and be able to swing along its cut line, the cutter head needs to be open and therefore cannot be not enclosed or restricted. As such no mitigation measures can be adopted.

Please see **Figure 1** and **Figure 2** some indicative pictures of the cutter head.



**Figure 1: Illustration of the CSD Dredging at the Riverbed Level**



Figure 2: Cutterhead of the Athena CSD

### 3.6 Further information regarding the dredging schedule

As noted in the Hydrodynamic and Sediment Plume Modelling Technical Note submitted to support Variation 1, the capital dredging with the CSD will take approximately 9 weeks. This duration does not account for any weather delays. The current CSD programme for the work starts on 30th January 2023.

### 3.7 Consideration of project timeline in the wider context of development within the Tees Estuary

South Bank project team are not in a position to advise on the timeline of other capital dredging projects on the River Tees but are not currently aware of any potential overlaps between planned capital dredging projects.

However, please refer to the letter from South Tees Development Corporation ('Teesworks') addressed to MMO in response to condition 5.2.13 of our Marine Licence (which has been accepted by the MMO), noting the South Bank Quay project commitment:

*"Please accept this letter as written confirmation that should it become apparent that the dredging and disposal from South Bank Quay could temporally coincide with the dredging works for the NGCT project, the total (aggregated) quantity of dredged material to be disposed will not exceed 1.34 million m<sup>3</sup> per month. Should there be any risk of this occurring then the parties will undertake additional consultation and inform the MMO accordingly"*

This was accepted by MMO on 14 July 2022, and we note that there is no change to this commitment as a result of this variation. The letter from Teesworks to MMO has been provided as **Appendix A**.

## **4 Response to Cefas Shellfish Comments**

Please refer to Section 4 and Section 5 of the supplementary 'MLV2 Appraisal of Environmental Effects' (document reference PC1084-RHD-SB-EN-NT-EV-1141) for consideration of the effects on shellfish as a result of the changes requested within MLV2.

## **5 Response to Cefas Benthic Comments**

Please refer to Section 5 of the supplementary 'MLV2 Appraisal of Environmental Effects' (document reference PC1084-RHD-SB-EN-NT-EV-1141) for consideration of the effects on benthic receptors as a result of the changes requested within MLV2.

## **Appendix A Teesworks Letter to MMO regarding Phase 1 Cumulative At-Sea Disposal Volumes**

FAO Fern Skeldon  
Marine Management Organisation  
Lancaster House  
Newcastle Business Park  
Newcastle  
NE4 7YH

(By email)

23rd May 2022

Dear Fern,

**Teesworks – South Bank Quay Phase 1 Dredging Works**  
**MMO Licence - L/2021/00333/1 – Condition 5.2.13**

Condition 5.2.13 of Marine Licence L/2021/00333/1 states that:

*“The applicant will liaise with Northern Gateway Container Terminal (NGCT) no later than 6 months in advance of the proposed start date of capital dredging and disposal for South Bank Quay and, subject to the outcome of that discussion, will provide either of the following to the MMO no later than 3 months in advance of the proposed start date of capital dredging and disposal.*

- *Written confirmation that disposal of dredged material from the South Bank Quay project will not temporally coincide with that arising from the NGCT project (meaning that no single phase of the capital dredging and disposal for the two projects would occur at the same time); or,*
- *Written confirmation that the total (aggregated) quantity of dredged material to be disposed would not exceed 1.34 million m3 per month (the peak monthly volume assessed within the EIA), should it be apparent that the dredging and disposal from South Bank Quay could temporally coincide (meaning that any phase of the capital dredging and disposal for the two projects could occur at the same time); or*
- *Further environmental assessment information (the scope of which would be agreed with the MMO) to analyse the potential nature of the cumulative environmental impact associated with offshore disposal should it be apparent that the dredging and disposal programmes for NGCT and the South Bank Quay project could (i) temporally coincide and (ii) the total (aggregated) quantity of dredged material to be disposed could exceed 1.34 million m3 per month, with a detailed programme of environmental monitoring to verify the predicted cumulative environmental impacts of disposal of dredged material.*

**Reason:**

*To ensure the volumes or material disposed of can be assessed are maintained.”*

South Bank Quay project has been the subject of numerous meetings and discussions held with PD Ports (who are developing the NGCT project) and the applicant. Consultation between the parties has been ongoing since early 2020 and detailed information has been shared about the project.

During these meetings the parties have been able to reach agreement on how to discharge condition 5.2.13 of the licence. PD Ports, in their role as Harbour Authority, provide control of licencing of



dredging activities and are fully aware of this condition. In the very unlikely event that the dredge campaigns coincide the Harbour Authority will consider this constraint.

Please accept this letter as written confirmation that should it become apparent that the dredging and disposal from South Bank Quay could temporally coincide with the dredging works for the NGCT project, the total (aggregated) quantity of dredged material to be disposed will not exceed 1.34 million m<sup>3</sup> per month. Should there be any risk of this occurring then the parties will undertake additional consultation and inform the MMO accordingly.

I trust that this letter is sufficient for you to discharge condition 5.2.13 of the licence and look forward to receiving confirmation of this.

Yours sincerely



Joshua Riley  
Project Manager- South Tees Development Corporation