



**MARINE AND COASTAL ACCESS ACT (2009) VARIATION APPLICATION BY SOUTH TEES DEVELOPMENT CORPORATION FOR THE DISPOSAL OF CAPITAL DREDGING FOR SOUTH BANK PHASE 1 AT TEES DOCK, MIDDLESBOROUGH.**

**Reference Number: MLA/2020/00506/1**

From: Sylvia Blake  
Cefas, Lowestoft Laboratory  
Date: 10<sup>th</sup> June 2022

**To: Ashley Endacott - MMO (via MCMS)**

1. With reference to the above application for variation of the licence South Bank Phase 1 at Tees Dock Middlesborough by South Tees Development Corporation and your request for comments dated 18<sup>th</sup> May 2022 please find my comments below.
2. This minute is provided in response to your advisory request in relation to the above proposal in my capacity as scientific and technical advisor for sediment quality in relation to, and regulatory requirements for dredge and disposal operations. The response pertains to those areas of the post-application request that are of relevance to this field. This minute does not provide specialist advice regarding benthic ecology, marine processes, fish and fisheries, shellfisheries, or underwater noise as, whilst these are within Cefas' remit, they are outside my area of specialism.
3. In providing this advice I have spent 4.5 hours of the allocated 7.5 hours by the MMO. I have booked my time to MLA/2020/00506/1 L/2021/00333/1.

**Documents reviewed**

4. PC1084-RHD-SB-DN-SK-C-0014-P02.pdf Drawing showing proposed and existing MMO licence dredge boundary. Dated 29<sup>th</sup> April 2022.
5. PC1084-RHD-ZZ-XX-NT-Z-0001 MLA.2020.00506.1 Response to Further Information Request.pdf From Royal HaskoningDHV dated 11<sup>th</sup> May 2022.
6. South Bank Quay Marine Licence Application- responses to Cefas Comments by Royal HaskoningDHV (PC1084-RHD-SB-EN-CO-EV-1116 dated 16<sup>th</sup> March 2021.

**Description of the proposed works**

7. This application is for the variation of the licence (L/2021/00333/1) that allows for demolition, capital dredging and offshore disposal of dredge material, rock placement, and construction works at South Bank Phase 1 Tees Dock. This variation request is for:
  - An amendment to the methodologies for licensed activities 1.1, 2.1 and 3.1 to include for the use of Cutter Suction Dredger;
  - A change to the dredge levels specified within the description of licensed activity 2.1 and 3.1 from 11m below Chart Datum (bCD) to 11.5m bCD; and
  - A revision to the coordinates of some of the dredging boundaries as detailed in licence schedule 2 and 3.

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## Responses to Questions posed by the MMO Case Officer.

All responses are observations unless otherwise stated.

### MMO Question 1. Is the proposed inclusion of cutter suction dredger appropriate and within the scope of the methods previously assessed?

8. In the responses to Comments for Cefas previous clarification from Royal HaskoningDHV dated 16<sup>th</sup> March 2021 (document referenced in paragraph 8) stated that:

#### 2.1.2. Applicant response

*The indicative durations of the proposed dredging works are detailed in Section 3.6.1 of the EIA Report.*

*The proposed dredge can be summarised as follows:*

- *Removal of soft material above -5m bCD using a backhoe dredger (approximately four weeks).*
- *Removal of soft material below -5m bCD using a backhoe dredger and a TSHD (approximately four weeks).*
- *Removal of soft material in the turning circle using a backhoe dredger and a TSHD (approximately one week).*
- *Removal of hard material using a backhoe dredger (approximately 10 weeks).*

*The proposed dredging activities are therefore predicted to take in the order of five months to complete.*

9. I have no objection to the inclusion of cutter suction dredging to these activities.

### MMO Question 2. Is any further sampling required to account for the increased dredge level?

10. In regard to the quantity, the total dredge volume for L/2021/00333 was 902,000 m<sup>3</sup> was revised to 1,235,000 m<sup>3</sup>, an increase of 333,000 m<sup>3</sup>. OSPAR recommendation for dredge volumes of 500 000 to 2,000,000 m<sup>3</sup> is that 16-30 sampling stations should be sampled. So, from a perspective of volume this might indicate that there is no need for further sampling. However, the sampling must also ensure that the samples are representative of the dredge area, please see comment 11 below.

11. The variation request is for a change to the dredge levels specified within the description of licensed activity 2.1 and 3.1 from 11 m below Chart Datum (bCD) to 11.5 m bCD; this refers to the capital dredging of the Tees Dock Turning Circle, and of the Channel and Berth.

12. The Turning Circle existing depth is 8.8m bcd and instead of 11 m is now proposed to be dredged to 11.5 mbcd. The Berth pocket will be dredged to 15,6 m bcd whilst other areas were to be dredged to 11 m bcd now 11.5 m bcd.

13. For the existing areas no further sampling at the new depth would be required.

### MMO Question 3. Is any further sampling required to account for the change in coordinates?

14. **Major comment.** Condition 5.2.1 of the licence describes an area for exclusion based on previous advice (Jemma Lonsdale to Emmanuel Malenga dated 6<sup>th</sup> April 2021) that material around borehole 34 be excluded based on sample results:

#### Latitude Longitude

54.60022 -1.16857

54.5982 -1.17191

54.59779 -1.17097

54.59983 -1.16771

This exclusion area is directly south of the area labelled to allow for remedial dredging of contaminated material (Drawing copied in annex1 figure1 and Google Earth image of dredge

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area and boundary points of exclusion zone -figure 2). Therefore, it is my opinion that this additional area should be sampled and analysed to determine its chemical and physical nature. I recommend the applicant seek advice from the MMO for a sample plan. To inform a sample plan it would be useful for the applicant to provide an estimate of the volume to be removed from this additional area, the co-ordinates of the area, anticipated dredge depth, together with previous sample and analysis information from the adjacent area (including plotted locations of previous sample points).

#### **MMO Question 4. Are there any changes to the material type and quantity for offshore disposal?**

15. **Minor comment.** Further sampling would be required to determine the nature of the material to be able to comment on type. I am unable to comment on the changes in quantity for disposal. As the volumes have changed an updated table of areas and quantities including the proposed new dredge area would be useful. Changes to the material type and quantity for offshore disposal would depend on the results of analysis and what was to be removed. It should be noted that although there appears to be an increase of 333,000 m<sup>3</sup> (point 12) the applicant states that no additional dredge volume is required (Document reference in paragraph 5).

#### **Additional Information**

16. I have not had sight of 'PC1084-RHD-ZZ-XX-RP-Z-0001 Technical Note - Hydrodynamic and Sediment Plume Modelling\_Final.pdf and 'pdf sections 2.1 and 2.2.' which were listed on MCMS as suggested reading. Request has been made via MCMS for these, but they are unlikely to change my opinion regarding sampling required.
17. **Minor comment.** Changes in be level may change hydrodynamics within the river and changes in accretion and therefore maintenance dredging. I would recommend that a specialist advisor with a knowledge of coastal process review the hydrodynamic and sediment plume modelling in regard to the changes in dredge depths proposed.

#### **Summary**

18. Further sampling and analysis of the area required for remedial dredging of contaminated material is needed to be able to determine the materials suitability for disposal to sea. The applicants should seek advice from the MMO for a sampling plan to avoid providing samples and results that would not be fit for purpose.
19. It would be useful for the applicant to provide a clear outline of the dredge areas and expected volume for removal of material and proportions expected to go to sea disposal to help inform any future sampling plans.
20. I have no objection to the use of cutter suction dredging to be added to the list for use for these works.

**Sylvia Blake**  
**Senior Marine Advisor**

Quality Check	Date
Dr Jemma Lonsdale	10/06/2022

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## Annex 1

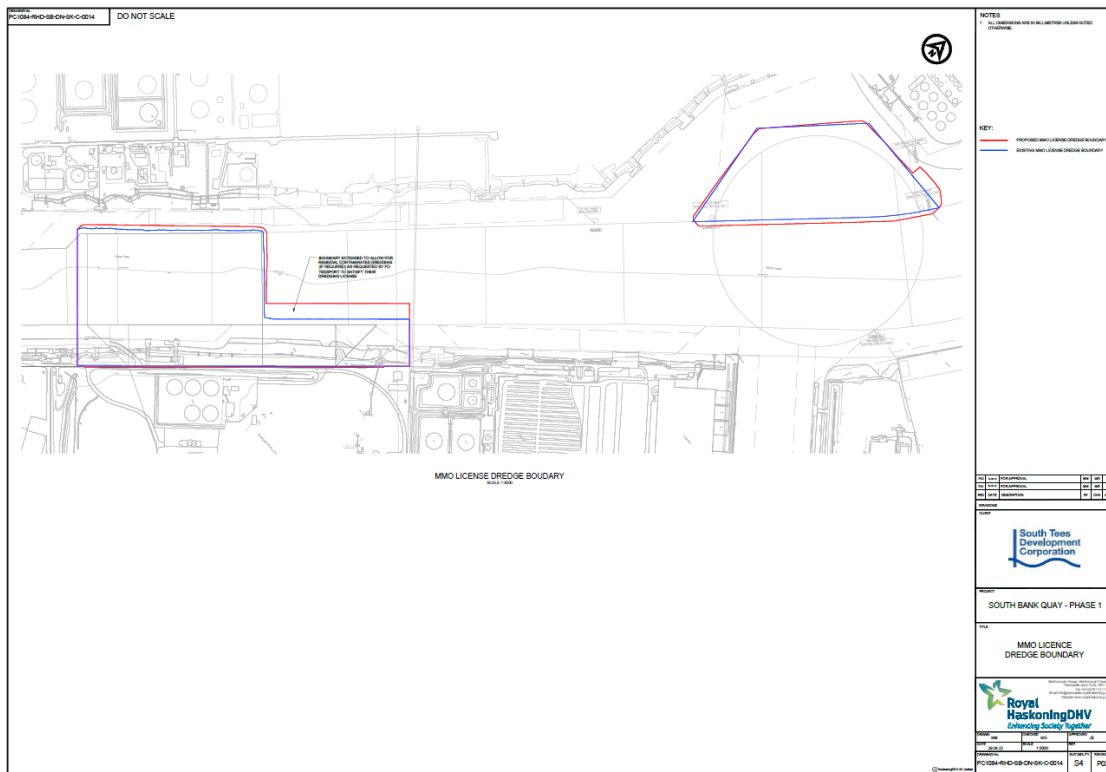


Figure 1. PC1084-RHD-SB-DN-SK-C-0014-P02.pdf Drawing showing proposed and existing MMO licence dredge boundary.



Figure 2. Plot of excluded area for dredging as indicated on the proposed dredge area provided by the applicant in Google Earth.

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