Note / Memo

HaskoningDHV UK Ltd.
Industry & Buildings

To:	Marine Management Organisation
From:	Royal HaskoningDHV
Date:	04 October 2022
Copy:	
Our reference:	PC1084-RHD-SB-EN-NT-EV-1134
Classification:	Project related

Subject: **L/2021/00333 South Bank Quay Marine Licence Variation Request 2**

1 Introduction

South Tees Developments Limited (STDL), otherwise known as 'Teesworks', are in the process of constructing a new quay at South Bank on the River Tees ('South Bank Quay'). The original marine licence was made by the Marine Management Organisation (MMO) on 17th December 2021 (L/2021/00333/1) and included activities for the demolition of existing structures, capital dredging of a new turning circle, capital dredging of the channel and berthing pocket, and placement of a rock blanket. A previous marine licence variation request to amend the dredging methodology, dredge depths, dredge areas and include an additional activity for enabling works (to facilitate access to and from South Bank Wharf) was determined by the MMO on 26th August 2022 (L/2021/00333/2).

This second marine licence variation request follows a general enquiry (ENQ/2021/00205) discussed with the MMO in regular meetings, and relates to a proposed increase to the capital dredge and disposal volumes to facilitate removal of the material between the existing OSPAR line[1] and line of the new quay wall together with minor corrections identified after determination of first marine licence variation request.

In support of this request to vary the aspects of the marine licence set out in **Section 2** of this note, please find enclosed:

- A note setting out the agreed methodology for the removal of material between the current OSPAR line and the line of the new quay wall (file name '*MLV2 Options Paper – Final*');
- Accompanying drawings (file names '*SBQ1-GCL-ZZZ-SBKXX-DR-WM-0008 C01*' and '*SBQ1-GCL-ZZZ-SBKXX-DR-WM-0007 C02*')
- Borehole logs illustrating the depth profile of made ground (file name '*Final BH01-BH15 Logs*'); and
- Sediment sampling data within the MMO's standard template (zip folder name '*BH01-15_Sediment Sampling Results*').

[1] The OSPAR line is taken to be the vertical level of Mean High Water Springs (MHWS). The material to be dredged which would be consented under this marine licence variation would therefore comprise the material that is currently landward of the vertical level of MHWS, but below the horizontal level of Mean High Water (MHW).

2 Marine Licence Variation Request

This section sets out the required changes to marine licence (L/2021/00333/1). For ease of reference, the changes to the marine licence requested within this section have been ordered corresponding to the structure of the marine licence document.

Activity 1.1 – Disposal of dredged material from Phase 1

An additional 231,000m^3 of material is required to be disposed to sea. This increased disposal volume takes into account the additional volume of material to be dredged for Activity 3.1 and the amended tolerances associated with Activities 2.1 and 3.1.

The Description of Activity 1.1 on the current version of the marine licence (L/2021/00333/2) reads:

> *Marine sediments to be dredged as part of Phase 1 of the scheme are to be disposed of at the Tees Bay C disposal site. A maximum amount of 902,000m3 of dredged material is anticipated during Phase 1, with 187,000m3 from Tees Dock turning circle and 715,000m3 from the channel and berth pocket.*

Please amend the Description of Activity 1.1 to read:

> *Marine sediments to be dredged as part of Phase 1 of the scheme are to be disposed of at the Tees Bay C disposal site. A maximum amount of 1,133,000m3 of dredged material is anticipated to be disposed of during Phase 1, with 216,000m3 from Tees Dock turning circle and 917,000m3 from the channel and berth pocket.*

The breakdown of disposal quantities for each material type will subsequently need to be amended. The breakdown of disposal quantities associated with Activity 1.1 specified on the current marine licence are as follows:

Quantities					
Start date	End date	Material	Amount to be deposited (dry tonnes)	Amount to be deposited (wet tonnes)	Source
17/12/2021	31/12/2030	Clay (<31.25um)	243913	280500	Channel and berth - dredge and excavation
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	696667	1045000	Channel and berth - dredge and excavation
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	236867	355300	Tees Dock turning circle - dredge

Please amend the breakdown of disposal quantities of each material type associated with Activity 1.1 to correspond with the quantities presented in the table below.

Quantities					
Start date	End date	Material	Amount to be deposited (dry tonnes)	Amount to be deposited (wet tonnes)	Source
17/12/2021	31/12/2030	Clay (<31.25um)	858870	987700	Channel and berth - dredge and excavation
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	425600	638400	Channel and berth - dredge and excavation
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	273600	410400	Tees Dock turning circle - dredge

Activity 2.1 – Capital dredging of the Tees Dock turning circle

An additional 29,000m^3 of material is required to be dredged within the Tees Dock turning circle. This increased dredge volume takes into account the tolerances associated with Activity 2.1, which were amended in the previous marine licence variation.

The Description of Activity 2.1 on the current version of the marine licence (L/2021/00333/2) reads:

> *Capital dredging of the Tees Dock turning circle is required to deepen it from an existing depth of 8.8m bCD to 11.5m bCD (maintained at 10.4m bCD). A maximum amount of 187,000m3 of material is proposed to be dredged from the Tees Dock turning circle.*

Please update the Description of Activity 2.1 to read:

> *Capital dredging of the Tees Dock turning circle is required to deepen it from an existing depth of 8.8m bCD to 11.5m bCD (maintained at 10.4m bCD). A maximum amount of 216,000m3 of material is proposed to be dredged from the Tees Dock turning circle.*

The breakdown of dredge quantities for each material type will subsequently need to be amended. The breakdown of dredge quantities associated with Activity 2.1 specified on the current marine licence are as follows:

Quantities			
Start date	End date	Material	Quantity (m3)
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	187000

Please amend the breakdown of dredge quantities of each material type associated with Activity 2.1 to correspond with the quantities presented in the table below.

Quantities			
Start date	End date	Material	Quantity (m3)
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	216000

Activity 3.1 – Capital dredging – channel and berth pocket

An additional 416,000m^3 of clay is required to be dredged within the channel and berth pocket. This increased dredge volume takes into account the additional volume of material to be dredged within the berth pocket between the existing OSPAR line and line of the new quay wall and includes for the correction of tolerances associated with Activity 3.1 requested as part of this marine licence variation. Only 917,000m^3 of the material dredged under Activity 3.1 will be disposed of under Activity 1.1.

The Description of Activity 3.1 on the current version of the marine licence (L/2021/00333/2) reads:

> *Capital dredging within parts of the existing navigation channel, and within areas not currently subject to maintenance dredging to create a berth pocket. The total dredge volume for marine sediments in Phase 1 (excluding that from the Tees Dock turning circle which was been included as a separate activity) will be dredged to a maximum amount of 715,000m3. The berth pocket will be dredged to 15.6m bCD, whilst all other areas are to be dredged to 11.5m bCD.*

Please update the Description of Activity 3.1 to read:

> *Capital dredging within parts of the existing navigation channel, and within areas not currently subject to maintenance dredging to create a berth pocket. The total dredge volume for marine sediments in Phase 1 (excluding that from the Tees Dock turning circle which was been included as a separate activity) will be dredged to a maximum amount of 1,131,000m^3. The berth pocket will be dredged to 15.9m bCD, whilst all other areas are to be dredged to 11.5m bCD.*

The breakdown of dredge quantities for each material type will subsequently need to be amended. The breakdown of dredge quantities associated with Activity 3.1 specified on the current marine licence are as follows:

Quantities			
Start date	End date	Material	Quantity (m3)
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	165000
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	385000
17/12/2021	31/12/2030	Clay (<31.25um)	165000

Please amend the breakdown of dredge quantities of each material type associated with Activity 3.1 to correspond with the quantities presented in the table below.

Quantities			
Start date	End date	Material	Quantity (m3)
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	165000
17/12/2021	31/12/2030	Sand (65.5um – 2mm)	385000
17/12/2021	31/12/2030	Clay (<31.25um)	581000

An update to the text of the Methodology for Activity 3.1 is proposed in order to capture the change in approach to removing the material between the existing OSPAR line and the line of the new quay wall. The Methodology for Activity 3.1 on the current marine licence (L/2021/00333/2) reads:

Dredging will be undertaken using a combination of cutter suction dredger, Trailing Suction Hopper Dredger (TSHD) and a backhoe dredger. Approximately, up to three barges will be required to support with the transport of sediment dredged using the backhoe dredger or cutter suction dredger to the offshore disposal site.

Please update the Methodology of Activity 3.1 to read:

Dredging will be undertaken using a combination of cutter suction dredger, Trailing Suction Hopper Dredger (TSHD) and a backhoe dredger. Approximately, up to three barges will be required to support with the transport of sediment dredged using the backhoe dredger or cutter suction dredger to the offshore disposal site.
The methodology for removing the material between the existing OSPAR line and the line of the new quay wall is set out in [Schedule X].

Please include the separately uploaded note titled '*MLV2 Options Paper – Final*' as a new schedule to the marine licence and where the updated Methodology text proposed above refers to *[Schedule X]* include the corresponding cross-reference.

Activity 5.1 – Placement of rock with the berth pocket

The Description of Activity 5.1 on the current version of the marine licence (L/2021/00333/2) reads:

There is a requirement to install a rock blanket within the footprint of the proposed berth pocket to avoid the risk of a jack-up barge 'punching' into the underlying sediments when berthed at the quay during the operation phase.
The berth pocket will need to dredged to a greater depth initially (15.6m bCD) to allow placement of up to 2m thick rock blanket.

In line with the updates requested for Activity 3.1, please edit the Description of Activity 5.1 to read:

There is a requirement to install a rock blanket within the footprint of the proposed berth pocket to avoid the risk of a jack-up barge 'punching' into the underlying sediments when berthed at the quay during the operation phase.
The berth pocket will need to dredged to a greater depth initially (15.9m bCD) to allow placement of up to 2m thick rock blanket.

In addition, a discrepancy has been noted between the mass of rock stated within the quantities section (175,000,000 kg) and written in the Methodology text (400,000 tonnes). Please may the value in the quantities table be amended to match that referred to in the Methodology text (400,000 tonnes or 400,000,000 kg)?

Please may the typo in the activity title also be corrected? '*With*' should read '*within*'.