Marine Management Organisation

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Mr John McNichols
South Tees Development Corporation
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By email only

Our reference: MLA/2020/00507 & MLA/2020/00507

10/08/2021

Dear John McNicholas,

SAMPLE PLAN ADVICE FOR Tees South Bank

Thank you for your request to the Marine Management Organisation (MMO) for a sample plan to inform a future dredge application. Please see our response below and any attachments, which has been compiled following consultation with our technical advisors The Centre for Environment, Fisheries and Aquaculture Science (Cefas).

Your feedback

We are committed to providing excellent customer service and continually improving our standards and we would be delighted to know what you thought of the service you have received from us. Please help us by taking a few minutes to complete the following short survey (https://www.surveymonkey.com/r/MMOMLcustomer).

If you require any further information, please do not hesitate to contact me using the details provided below.

Yours Sincerely,

Phillipa Koomson | Marine Licensing Case Officer | Her Majesty's Government - Marine Management Organisation (MMO)
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During the current health emergency, the Marine Management Organisation is continuing to provide vital services and support to our customers and stakeholders. We are in the main working remotely, in line with the latest advice from Government, and continue to be contactable by email, phone and on-line. Please keep in touch with us and let us know how we can help you https://www.gov.uk/mmo

Appendix 1 – MMO Sampling Plan

Marine Management Organisation

1. Description of the project

1.1. The advice relates to further sampling required to support the submission of a licence application for the dredge and disposal of material from Tees South Bank.

1.2. South Tees Development Corporation (STDC) is proposing to construct a new quay on the South Bank in the Tees estuary. It is envisaged that the new quay would be utilised predominantly by the renewable energy industry, as well as supporting more general industrial and storage/distribution activities. The applicant proposes to conduct a capital dredge to remove approximately 1,800,000 m³ of material from the Tees Dock turning circle and parts of the existing navigation channel, the latter of which will also be dredged to form a deeper berth pocket. Existing depths vary across the dredge areas, ranging from 5.7 to 13 m below Chart Datum (bCD), and the target dredge depth ranges from 11 m bCD for most areas, to 15.6 m bCD for the berth pocket only. The applicant anticipates that trailer suction hopper dredging (TSHD) and backhoe would be used to remove soft and hard material (mudstone) respectively. Once dredged, the applicant intends to dispose of dredged material at Tees Bay C (TY150) disposal site.

2. Sampling required

2.1. In accordance with the recommendations of the OSPAR Guidelines for the Management of Dredged Material, samples should be taken to provide a good representation of the volume of material to be dredged. The distribution and depth of sampling should reflect the size and depth of the area to be dredged, the amount to be dredged and the expected variability in the horizontal and vertical distribution of contaminants. The MMO also uses the OSPAR guidelines to inform our advice on sampling requirements for other activities which are likely to lead to the mobilisation of sediments. Based on the information submitted (as described above), the following sampling and analysis is required.

2.2. In consideration of the volume details of the proposed dredge, the MMO advises that samples should be taken from 9 sample stations as per the below:

- Once repeat sample at BH34
- Four samples encircling B34 to constitute an ‘inner circle’
- Four samples encircling the ‘inner circle’ to constitute an ‘outer circle’

There are no OSPAR guidelines as to the recommended number of sample stations for this type of sampling (i.e. to delineate the spatial extent of elevated contaminant levels), though the more samples that are taken, the greater the representation there will be of the area. Further details are provided on the attached sample plan form in Appendix 1.

2.3. Samples should be taken at the surface (0 metres depth), and at 1m depth intervals until consolidated Mercia Mudstone is reached as indicated on the sample plan form attached in Appendix 1.

2.4. Sample locations should be evenly spaced across the proposed areas to be dredged and samples must be representative of the material to be dredged (see attached sample plan in Appendix 1).

2.5. The following information must be included with any samples (irrespective of the laboratory to be used for analysis):
- Clearly labelled samples;
- Completed sample position sheet, including the latitude and longitude (decimal degrees and the projection i.e. WGS84) of each location
- Details of the method of sampling;
- A map/chart detailing the sample locations.

2.6. Surface samples should be taken from the upper layer of in-situ sediment using a non-metallic / stainless steel scoop. To maintain the integrity of the samples please ensure that they are **frozen** and remain in the freezer until they can be dispatched. Please ensure the samples are dispatched in a cool box - the cool box should not be placed in any other packaging.

3. Analysis Required

3.1. In light of the information provided and knowledge of the past industrial land usage of this site analysis is, on this occasion, required for:
- Heavy metals and arsenic (As)
- Polycyclic Aromatic Hydrocarbons (PAHs); including Total Hydrocarbon content (THC)
- Polychlorinated Biphenyls (PCBs)

3.2. Further details can be found on the attached sample plan form in Appendix 1.

3.3. To ensure consistency between laboratories it is expected that all analysis required will be undertaken from the same sample container.

4. Laboratories

4.1. You have now obtained an approved sample plan from the MMO. Should you now require sample analysis for chemical, physical and biological determinands in support of a regulatory approval such as a marine licence, you have a choice between using a provider of your choice listed at the link below:

https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans

This list indicates the laboratories which have been validated to undertake sediment analysis, as well as the specific determinands which they are validated to analyse. The MMO will not accept results from laboratories which have not been validated.

4.2. Irrespective of which validated laboratory is used to undertake sediment analysis, results accompanying a marine licence application must be submitted to the MMO on the correct results template (approved templates are available via the link in 4.1 above).

4.3. If the analysis is to be undertaken by a laboratory other than those validated by the MMO, that laboratory must meet the qualifying criteria as set out in the MMO guidance and become a validated laboratory (https://www.gov.uk/guidance/marine-licensing-sediment-analysis-and-sample-plans).

4.4. It is your responsibility to ensure that appropriate analysis is commissioned and supplied in support of a regulatory approval. However, if you have any queries about the process or would like clarity on this, please do not hesitate to contact the MMO by emailing: marineconsents@marinemanagement.org.uk

4.5. Due to the current coronavirus pandemic, some laboratories are experiencing delays in analysing certain chemicals for sediment samples. Please be mindful of this when considering project requirements and engage with your chosen validated laboratory in order to have a clear understanding of predicted timeframes.

5. Conclusion

5.1. This advice is based solely on the information provided in the sample plan request, and the sampling and analysis described will be adequate to inform a consultation decision that mirrors the information in the sampling request, providing that no further issues come to light.

The MMO will take a pragmatic approach to the requirement of repeat samples in relation to projects where works have not commenced. Samples taken at depth will remain a valid consideration for decision-making from the time they are taken. However, due to the dynamic nature of the marine environment and the potential for changes in the quantity and quality of sediments, there may be a need for surface sediments to be re-sampled and analysed if the project has not commenced within two years of the time of sampling.

5.2. Where long term licences for maintenance dredging will be applied for, additional sampling and analysis will need to be undertaken throughout the duration of the proposed longer licence term in order to comply with the OSPAR guidelines.

5.3. MMO reserves the right to request further sampling/analysis should any submitted Marine Licence application differ from that information submitted in this pre-application request. Any future application or return must clearly state this pre-application reference number.

Appendix I

Sample	Station	Metals	Organotins	THC	PAHs	PCBs	PDBEs	OCs	PSA
1	B34 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
2	*B34 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
3	IC1 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
4	*IC1 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
5	IC2 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
6	*IC2 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
7	IC3 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
8	*IC3 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
9	IC4 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
10	*IC4 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
11	OC1 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
12	*OC1 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
13	OC2 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
14	*OC2 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
15	OC3 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
16	*OC3 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
17	OC4 – 0m	☒	☐	☒	☒	☒	☐	☐	☐
18	*OC4 – 1m, 2m, 3m	☒	☐	☒	☒	☒	☐	☐	☐
19		☐	☐	☐	☐	☐	☐	☐	☐
20		☐	☐	☐	☐	☐	☐	☐	☐

Comments:
Stations should be representative of the proposed exclusion zone

B34 – Borehole 34
IC – Inner Circle
OC – Outer Circle

"*" denotes samples at 1 m depth intervals as per comment in point 11