



# Marine Management Organisation

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Our reference: SAM/2021/00027

**By email only**

16<sup>th</sup> June 2021

Dear Mr Ridley,

## **SAMPLE PLAN ADVICE FOR Tees and Hartlepool Maintenance Dredge Disposal Licence - Mid Licence Sampling.**

Thank you for your request to the Marine Management Organisation (MMO) for a sample plan to inform mid-licence sampling condition compliance. 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,

Michael Stedman  
Marine Case Officer

D 02087200460

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Appendix 1 – MMO Sampling Plan



INVESTORS  
IN PEOPLE

Bronze



# Marine Management Organisation

## 1. Description of the project

1.1. The advice relates to sampling to support mid-licence condition compliance for the dredge and disposal of material from within the Tees Estuary and into the Hartlepool Docks. Marine Licence number L/2015/00427; Condition 5.2.8.

1.2. The material to be dredged and deposited offshore comprises surficial deposits within the area defined on the licence. The annual volume of material dredged and disposed offshore since 2001 under licence L/2015/00427 has fluctuated, but on average approximately 1.1 million m<sup>3</sup> of maintenance dredged materials are deposited offshore each year from the marine licence source area. Maintenance dredging is undertaken using a combination of trailing suction hopper dredger and plough and disposal works are undertaken on a daily basis throughout the year and deposited at the offshore disposal site via bottom door release. This is a 10-year licence due to end on 31/12/25. Several areas currently excluded (detailed in Condition 5.2.7 of the existing marine licence) have not been recently dredged; the applicant is looking to re-sample these locations with the aim of removing the exclusions as part of this mid-licence sampling exercise.

## 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 **20 samples** should be taken from within the footprint of the proposed dredge area to

provide adequate spatial coverage. This is in line with the minimum guidelines set by OSPAR, which recommends between 16 and 30 sample station locations for volumes up to 2,000,000 cubic metres (m<sup>3</sup>). Further details are provided on the attached sample plan form in Appendix 1.

- 2.3. To support an application to reincorporate currently excluded areas into the licence, one sample site from each area, totalling **5 sample sites** (there are 6 currently excluded areas; please refer to point 5.1 for the sixth one), will be required. These samples should be in addition to the 20 sample sites for the mid-licence sampling condition.
- 2.4. Samples should be taken at the surface (0 metres depth) as indicated on the sample plan form attached in Appendix 1.
- 2.5. 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).
- 2.6. 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.
- 2.7. 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:
  - Metals – trace metals including Arsenic;
  - Organotins;
  - Polycyclic Aromatic Hydrocarbons (PAHs)
- 3.2 For those areas currently excluded from dredging, due to the age of existing data and MMO's previous advice, a full suite of analyses is recommended:
  - Trace metals (including Arsenic)
  - Organotins
  - PAHs including THC
  - Polychlorinated biphenyl congeners (PCB)
  - Particle Size Analysis (PSA)
  - Polybrominated Diphenyl Ethers (PBDE)
  - Organochlorine pesticides (OCP)

- 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](mailto: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. Additional Information

- 5.1. Normanby Wharf is one of the excluded areas the applicant wishes to reincorporate into their licence. It is stated that it was sampled in 2018/19 under sample ref MAR00179/008. The applicant has asked whether this area can be considered as already sampled and suitable for release from Condition 5.2.7.
- 5.2. An MMO Results Template has been provided for this case, however it does not appear to include any reference to MAR00179/008. The sample results template

(including coordinates) should be submitted alongside the request, with the remaining mid license sample analysis specified above, so advice can be given whether the exclusion can be lifted in this area.

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- 5.3. Considering the above, and that the most recent mid-licence sampling regime tested for a full suite of analyses (metals, tins, PAHs, PCBs, PBDEs and OCPs), the MMO considers it reasonable that Normanby Wharf be considered already sampled for the purpose of reincorporating it into the licence. A truly precautionary approach would recommend that Normanby Wharf not be considered already sampled, however, without knowing the specific reason the site was originally excluded for, any sampling that would recommend for Normanby Wharf would likely be a routine full suite of analyses anyway, which may have already been conducted in 2019. In this regard, it is requested that the applicant provide the MMO with the results template (including coordinates) for MAR00179/008 so the results can be assessed or clarify whether these results have already been considered as part of a separate consultation.
- 5.4. If the applicant is content that the samples taken in 2018/2019 meet the above parameters, then they can be considered valid for resubmission, as part of the mid year licence condition.

## 6. Conclusion

- 6.1. This advice is based solely on the information provided in the sample plan request, and the sampling and analysis described will be adequate comply with relevant marine licence conditions, providing that no further issues come to light and a variation is submitted in a suitable time-frame. 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.
- 6.2. 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.
- 6.3. 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 1  
Sample plan**

Sample	Station	Metals	Organotins	THC	PAHs	PCBs	PDBEs	OCs	PSA
1	Site A - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Site B - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Site C - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Site D - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Site E - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Site F - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Site G - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Site H - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Site I - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Site J - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Site K - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Site L - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Site M - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Site N - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Site O - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Site P - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Site Q - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Site R - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Site S - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Site T - 0m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	*Cochrane's Wharf	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
22	*Tees Offshore Base	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
23	*Teesport Commerce Wharf	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
24	*Bamlett's Wharf	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
25	*Britannia Enterprise Zone	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Comments:**

Samples should be representative of material to be dredged

\*Exclusion zone samples should also be sampled at 1m depth intervals down to the maximum target depth should the applicant's target depth exceed 1m