

Marine Licensing
Lancaster House
Newcastle Business Park
Newcastle upon Tyne
NE4 7YH

T +44 (0)300 123 1032
F +44 (0)191 376 2681
www.gov.uk/mmo

Tilbury2 Project Team
National Infrastructure Planning
Temple Quay House
2 The Square
Bristol
BS1 6PN

Your Reference: TR030003
**Our Planning Inspectorate
Reference:** 20010091
Our Internal Reference:
DCO/2017/00001

By email only

4 April 2018

Dear Panel,

**RE: TILBURY2 – SECTION 89 AND THE INFRASTRUCTURE PLANNING
(EXAMINATION RPROCEDURE) RULES 2010: EXAMINING AUTHORITY’S “RULE 8
LETTER”**

The Marine Management Organisation (MMO) has reviewed the Examining Authority’s (ExA) ‘Rule 8 Letter’ dated 26 February 2018 and the following constitutes the MMOs formal response to deadline 2 as set out in this letter.

The MMO is an interested party for the examination of Development Consent Order (DCO) applications for Nationally Significant Infrastructure Projects (NSIPs) in the marine area. The MMO received notification on 29 November 2017 stating that the Planning Inspectorate (PINS) (on behalf of the Secretary of State for Business, Energy and Industrial Strategy) has accepted an application from Port of Tilbury London Limited (the Applicant), for a DCO for the Tilbury2 port development.

The redevelopment of the Tilbury2 site itself will comprise the development of a new harbour facility in the form of an operational port. A number of key components are proposed within the port, with the two principal proposed uses being a Roll on Roll off (RoRo) terminal, located south of Substation Road, and a Construction Materials and Aggregates Terminal (CMAT) to the north of Substation Road.

The MMO has an interest in this project because the development contains the improvement and extensions to the existing river jetty and dredging of the River Thames within the tidal extent. The DCO application includes a deemed marine licence (DML) under Section 65 of the Marine and Coastal Access Act 2009 (MCAA 2009) and should consent be granted for the project, the MMO will be responsible for monitoring, compliance and enforcement of DML conditions. The DCO application also includes provisions changing the powers or duties of a harbour authority. Under article 145 of the Planning Act 2008 (as amended) (the 2008 Act), (5) a DCO may include provisions in relation to a harbour authority, in particular, (a) any provision which could be included in a harbour revision order under section 14 of the Harbours Act 1964 (the 1964 Act) by virtue of any provision under Schedule 2 of the 1964 Act. The MMO have delegated responsibility for harbour orders under the 1964 Act and as such will also provide comments on these aspects.

Deadline 2 consists of:

- Comments on Written Representations (WRs) and responses to comments on Relevant Representations (RRs)
- Comments on Local Impact Reports
- Comments on responses to First Written Questions (FWQs)
- Comments on any revised draft DCO or other documents from the Applicant submitted at deadline 1
- Responses to any further information requested by the Panel
- Applicant's final itinerary for the Accompanied Site Inspections to be held on 16 April and 17 April 2018

Of these items, the MMO considers the following relevant matters in relation to:

- Comments on WRs and responses to comments on RRs
- Comments on Local Impact Reports
- Comments on responses to FWQs
- Comments on any revised draft DCO or other documents from the Applicant submitted at deadline 1
- Responses to any further information requested by the Panel

1. Comments on Written Representations (WRs)

1.1. Port of London Authority (PLA)

1.1.1. The PLA raise concerns with the overlapping of jurisdictions of harbour powers which is also of concern to the MMO. The MMO note the PLA's concern over the inclusion of maintenance dredging as a power which, albeit for different reasons, is also a concern to the MMO. The MMO have considered the wording in section 5AA of the Port of London Act 1968 (the 1968 Act); Schedule 8 of the referenced London Gateway Port Harbour Empowerment Order 2008 and The Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014. The MMO note that these documents state that maintenance dredging is still under the control of the PLA under paragraph 73 of the 1968 Act and normal licencing procedures should be followed. The MMO are in agreement with this approach and, as the MMO would also licence this activity, it should be included as an activity within the DML. The MMO are open to discussions with the PLA and the Applicant on the wording of this within the DML/Protective Provisions so that it is regulated by the MCAA 2009 and the 1968 Act.

1.1.2. The MMO agree with the PLA's comment on the extent of the ancillary works in sections 8.6 and 8.7 of their response.

1.1.3. The MMO also agree with section 9.2 of the PLA response regarding dredging maximum depths. This depth should be given as the deepest most limit with respect to the sampling already undertaken. If this maximum depth exceeds that described in the recent sampling, further sampling will be required.

1.1.4. In response to section 9.5 of the PLA response, whilst it is appreciated that the PLA have direct control over the river, the MMO are also a regulator within tidal rivers with regard to the need to prevent interference with legitimate uses of the sea under 69(1)(c) of MCAA 2009.

1.1.5. In relation to section 14.4, the MMO note the request by the PLA for inclusion of a provision that requires PLA to consent the raising of a wreck or obstruction. The MMO would like to query if this only refers to existing obstructions or if this would also include objects dropped during construction/operation? If it includes dropped objects, does the responsibility of removing them transfer over to the Applicant as a harbour authority or does this remain with the PLA?

1.2. Environment Agency (EA)

1.2.1. As the MMO understand it, there are no planned mitigation or compensatory habitat works below Mean High Water Springs (MHWS). The MMO wish to advise on this aspect, with reference to *Briels v Minister van Infrastructuur en Milieu* (Case C-521/12) [2014], that habitat creation offsite, prior to the proposed works removing the protected habitat, is seen as compensation and not mitigation. Proposals identified in this way must show that they have considered the alternatives and should no suitable alternatives be identified then the proposal must pass the Imperative Reasons of Overriding Public Interest (IROPI) test contained in Article 6(4) of the Habitats Directive. The MMO advises that the Applicant discuss any potential net habitat loss with Natural England, as a Statutory Nature Conservation Body (SNCB).

1.3. Natural England (NE)

1.3.1. The MMO are supportive of NE's comments on the loss of habitat and functionally linked habitats. The MMO are also in agreement with NE on the matter of the Marine Conservation Zones in the area.

1.3.2. The Functional linkage report

1.3.2.1. Whilst the MMO support the production of this report, the "note of caution" section raises concern. The MMO note that the last paragraph of this section states that it is the reader's responsibility to interpret this report appropriately. The MMO does not consider it to be appropriate to leave this report open to interpretation as the conclusions reached may differ depending on the reader. The statement creates uncertainty in the validity of the report. A large volume of case studies and associated documents have resulted in the production of a report that uses data that may or may not be accurate or sound

1.4. Historic England (HE)

1.4.1. The MMO welcomes HE's comments on the marine archaeological remains and also welcomes discussions with HE and the Applicant around the inclusion of a Marine Written Scheme of investigations (Marine WSI), Archaeological Method Statements and Archaeological Exclusions zones in the DML.

2. Responses to comments on Relevant Representations (RRs)

2.1. Port of Tilbury

2.1.1. Cumulative and Combined Impacts

2.1.1.1. In line with the Panels FWQ 1.7.1/1.7.2 the MMO agree with the requirement of a cumulative and combined impacts assessment.

2.1.2. Biodiversity, ecology and natural environment

2.1.2.1. The MMO maintain concerns regarding impacts to saltmarsh habitats during proposed work on the outfall pipes. Due to the tidal influx these habitats are subject to, there is the potential for impacts to occur below MHWS. The MMO will await the outputs from discussion between the Applicant and EA, but maintain that should it be identified that work is required below MHWS, the MMO be notified and consulted. The MMO also advise that NE, as the SNCB, be consulted on any potential saltmarsh habitat loss that may occur during the proposed works.

2.1.3. Contaminated land and waste

2.1.3.1. In relation to the response given to the maritime pollution concern raised by Kent County Council, the PLA should confirm that they are responsible for this.

2.1.3.2. The MMO's comment on this was in relation to Article 43(3) of the dDCO and not the DML as stated by the Applicant. The MMO raised concerns that the current wording of this article appears to enable disposal of materials to occur elsewhere in the UK marine area. The wording restricts disposal activity from taking place within the River Thames, which could be interpreted as allowing disposal to take place elsewhere in the UK marine area. The DML restricts disposal at sea to the disposal site chosen by the Applicant, however Article 43(3) should be reworded to state:

No such materials shall be laid down or deposited –

(a) in contravention of the provisions of any enactment as respects the disposal of waste; or

(b) in any place below the level of high water otherwise than in such position and under such conditions and restrictions as may be approved by the MMO under the marine licence deemed to be granted by article 53

The Applicant states that the Construction Environmental Management Plan (CEMP) and Operational Management Plan (OMP) detail the provision for managing waste however, these do not cover dredge and disposal as this is secured through the DML.

2.1.4. Draft DCO

2.1.4.1. As stated by the Applicant, discussions regarding the DML and Article 43 are ongoing and updates to the DML and the Statement of Common Ground (SoCG) will be provided at the relevant deadlines during examination.

2.1.4.2. The MMO would like the Applicant to clarify how, under 43(4) of the dDCO, they have concluded that the dDCO falls within the legislation specified under section 75(3) of MCAA 2009. The MMO is of the opinion that a DCO does not constitute a local Act or an order under section 14 or 16 of the 1964 Act.

2.1.4.3. It should be made clear by the Applicant that the PLA's protective provisions cover the areas of concern raised by the MMO. As the Applicant has referred to themselves as the statutory harbour authority, the MMO would like the Applicant to clarify if this has been considered in the protective provisions, in terms of matters such as responsibility for issuing notice to mariners?

2.1.5. Dredging and Navigation

2.1.5.1. Comments from Cefas have been provided to the Applicant and the Applicant's responses to these comments have been received and reviewed by Cefas. An update is provided in Annex I and has been provided to the Applicant.

2.1.5.2. The MMO welcome the updated Sheet 3 of the Works Plans to include the dredging exclusion zone. Discussions were held on this matter, as there is an area of the proposed exclusion zone that falls outside the Red Line Boundary. As such, it was requested that the co-ordinates be updated to ensure they aligned with this boundary, the MMO note that this is yet to be done.

2.1.6. Certified documents

2.1.6.1. The MMO understand the Applicant's reasons for certifying the documents under the DCO and whilst our concerns on this remain we accept the Applicants reasons.

2.1.7. Historic Environment

2.1.7.1. The MMO accept the Applicant's comments and providing HE are in agreement with the Marine WSIs, the MMO agree with this approach.

2.1.8. Water Quality, Flood Risk and Water Framework Directive (WFD)

2.1.8.1. The Applicant's response to the EA with regards to the requirement of dredge methodologies states that the DML conditions require the MMO to consult with the EA on the submitted methodologies. The condition is worded such that the Applicant carries out a consultation with the EA and also NE prior to submission of the methodology to the MMO. This has also been agreed with the Applicant.

3. Comments on Local Impact reports

3.1. Gravesham Borough Council

3.1.1. The MMO welcome the inclusion of the marine environment within their local impact report and note that they have taken into account the views of the MMO and NE with respect to this matter.

3.2. Thurrock Council

3.2.1. The MMO note that there is no mention of the marine environment within Thurrock Council's Local Impact Report.

4. Comments on responses to First Written Questions (FWQs)

4.1. Port of Tilbury London Limited (The Applicant)

4.1.1. In response to the Applicant's response to FWQs on mitigation/compensation/enhancement: As the MMO understand it, there are no planned mitigation or compensatory habitat works below MHWS. The MMO wish to advise on this aspect, with reference to *Briels v Minister van Infrastructuur en Milieu* (Case C-521/12) [2014], that habitat creation offsite, prior to the proposed works removing the protected habitat, is seen as compensation and not mitigation. Proposals identified in this way must show that they have considered the alternatives and, should no suitable alternatives be identified, the proposal must pass the Imperative Reasons of Overriding Public Interest (IROPI) test contained in Article 6(4) of the Habitats Directive. Whilst the terrestrial aspect is outside of the remit of the MMO, it wants to ensure that the appropriate procedures are followed correctly. As stated above, as the SNCB, NE should be consulted with regard to any potential net loss of habitat.

4.1.2. FWQ 1.2.15

4.1.2.1. The MMO welcome the clarification of the sea wall within the Environmental Statement (ES) and note the saltmarsh habitat loss. The MMO would reiterate that as this habitat is, by its very nature, regularly flooded by tides any mitigation for this habitat will require MMO consultation.

4.1.3. FWQs 1.2.28 – 1.2.34

4.1.3.1. The Applicant provided further information in relation to these comments raised by our technical advisors Cefas. Based on those comments, Cefas are largely satisfied that their comments have been addressed. An update is provided in Annex I and has been provided to the Applicant.

4.1.4. FWQs 1.5.1 and 1.5.2

4.1.4.1. The MMO concur with these response and that, for the marine works, the method statements will be secured through the DML.

4.1.5. FWQ 1.5.3

- 4.1.5.1. The MMO appreciate that the exact timings piling works are currently unknown but it is the MMO's understanding that the Applicant will submit revised method statements at the appropriate deadlines that the EA and NE will have had sight of, therefore any seasonal concerns will be addressed at this time.
- 4.1.6. FWQ 1.6.11**
- 4.1.6.1. The MMO note that the Applicant has stated the possibility of transporting waste, via conveyor or otherwise, onto a barge may be a possibility once a contractor has been appointed. The MMO agrees with the Applicant that the appointed contractor be advised to carry out an assessment of potential risks to WFD and the marine environment. This assessment should take into account accidental deposit of waste into the Thames and any mitigation measures that could be put in place.
- 4.1.7. FWQ 1.9.1 and 1.9.2**
- 4.1.7.1. The MMO does not dispute that the proposal by the Applicant meets the requirements of 'harbour facilities' under section 24 of the 2008 Act. The MMO is questioning the harbour powers that are being included in the dDCO, in particular how powers are being transferred from the PLA to the Applicant. Also, what, if any, additional powers are being sought that are not part of a transfer. The MMO is not requesting the Applicant submit a separate application for a harbour order, the MMO is requesting that, in line with such applications, they provide full justification and explanation for the powers being sought under the dDCO in order for them to be appropriately considered as part of this application. The Applicant has stated in their response to FWQ 1.9.2 that they are the statutory harbour authority, the MMO would like clarification as to how this impacts the requirements for Notice to Mariners to be issued by the Port of Tilbury. Previously it has been stated that the PLA is the Authority and all such requirements will be fulfilled by them. Is this considered fully in the PLA's protective provisions?
- 4.1.8. FWQ 1.9.3**
- 4.1.8.1. The MMO refer to their own response to this question in their deadline 1 response, stating that a WFD requirement was suggested to the Applicant under condition 19 of the original dDCO.
- 4.1.9. FWQ 1.9.11**
- 4.1.9.1. The MMO note that the Applicant has stated that the DCO allows for capital dredging anywhere within the Order Limits however it should be noted that this is restricted by the Limits of Dredging Plan (POTLL/T2/EX/45).
- 4.1.10. FWQs 1.9.23 and 1.9.24**
- 4.1.10.1. The MMO was previously advised that these would be secured through the CEMP but welcome the inclusion as conditions within the DML.
- 4.1.11. FWQ 1.11.7**
- 4.1.11.1. As 4.12 above, the MMO notes the loss of saltmarsh and intertidal habitats and reiterate that MMO should be included in any mitigation discussions surrounding this.
- 4.1.12. FWQ 1.16.1**
- 4.1.12.1. The MMO have reviewed the Applicants response to this question and do not feel that the justification is given. The response refers to the noisiest method of dredging (Suction Dredging) but does not relate this or

give justification for the two proposed methods (Water Injection Dredging and Backhoe Dredging).

4.1.13. FWQ 1.16.9

4.1.13.1. The MMO welcome the corrected data.

4.1.14. Cumulative effects assessment (CEA)

4.1.14.1. The MMO welcome the CEA of the Tilbury Energy Centre but note that despite the Panel requesting a CEA of Lower Thames Crossing that this is yet to be considered.

4.2. Natural England (NE)

4.2.1. FWQ 1.5.1

4.2.1.1. The MMO note NE's interest in seeing construction method statements in relation to marine activities. The DML contains a condition that requires NE to be consulted on every construction method statement prior to submission to the MMO for approval.

4.2.2. FWQ 1.5.2 & 1.5.3

4.2.2.1. The MMO support NE in their response to these questions

4.2.3. FWQ 1.9.23

4.2.3.1. The MMO has been advised by the Applicant that mitigation, dredging on the ebb tide, will be secured through the certified CEMP. However, if the Panel deem it appropriate, a condition can be added to the DML.

4.2.4. FWQ 1.2.11

4.2.4.1. As the MMO understand it, there is to be no mitigation or compensatory habitat works below MHWS, however the MMO wish to advise on this aspect. With reference to *Briels v Minister van Infrastructuur en Milieu (Case C-521/12) [2014]*, habitat creation offsite prior to the proposed works removing the protected habitat is seen as compensation and not mitigation. Proposals identified in this way must show that they have considered the alternatives and, should no suitable alternatives be identified, the proposal must pass the Imperative Reasons of Overriding Public Interest (IROPI) test contained in Article 6(4) of the Habitats Directive. Whilst the terrestrial aspect is outside of the remit of the MMO, it wants to ensure that the appropriate procedures are followed correctly. As stated above, as the SNCB, NE should be consulted with regard to any potential net loss of habitat.

4.3. Environment Agency (EA)

4.3.1. FWQ 1.2.3: Saltmarsh loss

4.3.1.1. The EA has stated that they have received further information on the loss of saltmarsh and mitigation measures. The MMO would like to reiterate that of its own deadline 1 submission, that if this mitigation is to be below MHWS then the MMO must be consulted on the matter.

4.3.2. FWQ 1.9.3

4.3.2.1. The MMO have been in discussions with the EA and note their request for the DML conditions. The MMO requested these be added to the DML and were advised by the Applicant that these mitigation measures are to be secured through the CEMP. If the Panel deem it appropriate, the MMO will include them as DML conditions instead.

4.3.2.2. The MMO note the EAs response to part d) of this question and has advised the EA that it only supplies sample plans for sediment sampling. Whilst the sampling of the water column is outside of the remit of the MMO, a condition requiring its submission could be added to the DML if deemed appropriate. This would be passed to the EA for consultation and review.

4.3.2.3. The MMO also note the EA's preference for maintenance dredging to require a licence each year. Where the maintenance dredging will sit within the DCO/DML is still under discussion and should the decision be made that it sits under the DML only, a condition will be required that requires the submission of a method statement with accompanying WFD assessment following consultation with the EA.

4.3.2.4. The EA suggest removal dredging only, instead of Water Injection Dredging (WID). The MMO do not deem this appropriate as it would remove the sediment from the river entirely and habitats downstream may be impacted by the reduction in sediment transported to them.

4.4. Historic England (HE)

4.4.1. The MMO note the request for Pre-Construction condition wording regarding the Marine WSI. The MMO are open to discussions on this, with the Applicant and HE.

4.5. Port of London Authority (PLA)

4.5.1. As noted above in the MMOs response to the PLA's WR, the MMO support the removal of maintenance dredging as a power in the dDCO and inclusion as a licensable activity only. The DML restricts disposal at sea to the disposal site chosen by the Applicant.

5. Comments on revised draft DCO submitted at deadline 1

Comments under this section refer to the track changes version of the DCO.

5.1. The MMO would like to understand where the definition of "the Company Harbour Master" has originated from. The definition currently in the dDCO refers to this being a person appointed by the Applicant under the 1968 Act. The MMO does not consider it appropriate for the Applicant to appoint a Company Harbour Master under the 1968 Act. If the Applicant has the necessary powers to undertake this activity, the powers would have been granted under the 1992 Transfer Scheme (1992 Scheme) and an appointment would be under the 1992 Scheme not the 1968 Act. If the Applicant does not have those powers in the 1992 Scheme, could the Applicant please clarify whether they are being sought through the dDCO.

5.2. As stated in section 1.1.3 of this letter, the MMO would expect to see the limits of dredging plan referred to under Limits of Deviation as having maximum depths rather than approximate depths.

5.3. With regards to Article 43 and the powers to dredge, as stated in the MMOs deadline 1 response, the MMO's position is that this should be included as maintenance dredging activities in the DML only, not as a "power" under the DCO. At present, the PLA retain jurisdiction to carry out dredging activities in the area of river within the order limits. This power was not transferred to the Port of Tilbury in the 1992 Scheme and, as such, the exemption under section 75 of MCAA 2009 for certain dredging activities cannot be applied. The MMO has interpreted this exemption to relate to existing powers that were granted under section 14 or 16 of the 1964 Act. The wording of this exemption does not include powers granted through the 2008 Act under a DCO. As such the requirement for a River Works licence from the PLA and consideration of maintenance dredging as a licensable activity under the MCAA 2009 would be granted and controlled under the DML. Discussions with the Applicant and the PLA on this point are ongoing.

5.4. Article 43(3) also refers to the disposal of dredged material within the River Thames. Whilst the position of the MMO is that this article is not to be included in the dDCO should the Panel decide that this is appropriate, the MMO request that, in order to align this subparagraph with the DML, it should state the disposal site name. Alternatively it should state, as per our RR, that disposal of dredged

material is not to be undertaken anywhere within the UK Marine Area apart from the disposal site depicted in the DML or otherwise agreed with the MMO, as referenced in paragraph 2.1.3.2 of this response above. The MMO is concerned the current wording of this subparagraph could give rise to disposal of material in areas outside of the River Thames that have not been assessed by the MMO as being suitable for the material to be disposed of.

- 5.5.** Under the heading of ancillary works under Schedule 1, the Applicant states that these works will not give rise to any significant adverse effects that have not been assessed within the ES, the MMO would like clarity on the threshold for determining this and also how/who will determine the impacts.
- 5.6.** Also under the heading of ancillary, subparagraph (g) has been removed. The MMO would like clarity on the reason for this is and, if the decision is made that would retain dredging as a licensable activity, whether or not this subparagraph would be reinserted.
- 5.7. Deemed Marine Licence**
 - 5.7.1.** If the decision is made to have maintenance dredging as a licensable activity, rather than a power, it will require a definition to be added to the DML with more appropriate wording than in the previous draft.
 - 5.7.2.** The MMO maintains its position that reference to the activities below MHWS as detailed in Schedule 1 must be included within paragraph 3 of the DML in order that it is clear what activities the conditions are in relation to.
 - 5.7.3.** Part 2. 4. The sentence “of the commencement or completion (as applicable)” is not required as (a) and (b) refer to the relevant stages that require notification, this sentence should be removed.
 - 5.7.4.** Condition 13 should be updated to reference the hours of the week/weekend during which piling will not take place.
 - 5.7.5.** Condition 14 should be updated to reference the seasonal restriction for dredging.
 - 5.7.6.** The Applicant states in their response FWQs that dredging on the ebb tide will be controlled by the DML or CEMP. The DML should be updated to reflect this.
 - 5.7.7.** As the Applicant recognises itself as a statutory harbour authority, should the Order be granted, the MMO request that the original notification conditions for notice to mariners and the UK Hydrographic Office be added as conditions of the DML.
 - 5.7.8.** The maintenance dredge method statement has been removed from this version. The MMO’s position is that it should be reinserted, as per the MMO’s position on maintenance dredging being an activity in the DML only and removed as power under Article 43. The MMO, in agreement with the EA, request that there should be an additional subparagraph to this condition requiring the submission of a WFD assessment for each maintenance dredge campaign.
 - 5.7.9.** The MMO’s position, in relation to maintenance dredging sample analysis, is that regardless of where maintenance dredging sits within the DCO/DML, sediment sampling will be required every 3 years as a minimum. As such this condition must be reinserted.
 - 5.7.10.** Condition 19: The last sentence should be removed as is not required.

6. Comments on revised documents submitted by the Applicant deadline 1

- 6.1.** The MMO has reviewed the update Landscape and Ecological Mitigation Plan and note that it now includes intertidal habitats despite the document stating that it only deals with terrestrial aspects. The footnote states that this is dealt with in the

Ecological Mitigation and Compensation Plan (ECMP) and so due to this change, the MMO will need to have sight of this plan to determine any further licencing requirements.

If you would like to discuss any specific matter further or require additional clarity, please do not hesitate to contact me directly.

Yours Sincerely



Heather Hamilton

Marine Licensing Case Officer

D +44 (0)208 225 7692

E heather.hamilton@marinemanagement.org.uk

Annex I: Cefas response to Port of Tilbury (PoTLL)

Ref	MMO/Cefas comment	PoTLL response	Cefas response
Underwater noise			
1.	Previous comment: <i>It was previously raised that the total number of piles to be installed / length of sheet pile wall and the method of installation for each should be clearly provided in the EIA. The applicant responded to this comment stating that this information is provided in the project description section of the ES. However, I could not find this section of the ES (I don't think this Chapter was provided for review by the MMO).</i>	Noted.	
1.1	This comment has been addressed within the errata chapter 5.	Noted.	The length of the sheet-piled wall has still not been provided, although the number of piles to be installed (for multi-pile and monopile option) were provided by the applicant. We are satisfied that this comment has been addressed.
2.	Previous comment: <i>I could not find any information on when the piling operations are expected to take place (specifically what months), and it would be useful if the applicant could confirm this.</i>		
2.1	The updated marine ecology chapter states that the core working hours will be as follows for works that involve use of the indicative plant listed in Appendix 17.A of the ES, marine piling activities and for works on the infrastructure corridor: Monday – Friday 08:00 – 18:00 weekends 08:00 - 16:00.	The time of year that piling in the marine environment will take place will depend on appointment of an appropriate contractor and the final construction programme. The River Thames is used year-round by fish and marine mammals, and so there are environmental implications of piling throughout the year. Rather than restricting piling to a particular season, a more effective mitigation approach for underwater noise caused by piling (which is the main concern with marine piling), is considered to be the establishment of a daily non-piling window of at least 14 hours; an approach which has been recommended by the	

2.2	<p>These working hours will provide a non-piling window of at least 14 hours per day. For the avoidance of doubt, these hours do not apply to non-piling marine works.</p> <p>Whilst the information does not include the months in which piling would be undertaken, the MMO understand that as the project is currently going through examination this information is not yet know but it would be helpful for an indication of when this is expected to take place.</p>	<p>MMO during consultation.</p> <p>Additionally, the scheme will adhere to the JNCC protocol for piling in the marine environment.</p>	<p>Appropriate mitigation (e.g. non-piling windows) will be important particularly during the more sensitive months for fish species in the River Thames such as April to September. The applicant should detail the final construction programme once known.</p>
3.	<p>Previous comment: <i>Although the assessment refers to 'fish and shellfish', it appears that the potential impacts on marine invertebrates have not been considered. The MMO would expect conclusions to be drawn from the peer-reviewed literature.</i></p>	<p>Impacts from noise and vibration in the ES focused on marine mammals and fish, the marine receptors believed to have more developed hearing abilities and be more acoustically active species, and an assessment of effects on marine invertebrates was not undertaken.</p> <p>Most peer-reviewed literature examines the impacts to marine mammals and fish rather than on invertebrates (Williams et al, 2015; Peng, Zhao & Liu, 2015), and a few cases focus on individual marine invertebrate species (Hawkins & Popper, 2017). The marine invertebrate community found at Tilbury2 is dominated by mud worms and small amphipod crustacean</p> <p>Some invertebrates such as crustacean can lack air-filled organs necessary to detect sound pressure, but appear to be sensitive to low frequency acoustic stimuli arising from particle motion, this is, the variation in pressure and oscillation of water molecules (Roberts, Cheesman & Elliott, 2016).</p> <p>Experiments have shown that noise can affect behaviour and physiology of some invertebrates such as crustacean, which could be distracted from foraging, and tend to increase their oxygen consumption, increasing risk of starvation or predation (Wale et al, 2013).</p> <p>Tube worms would withdraw instantaneously back into their tube at the presence of vibrations and extend their</p>	<p>I welcome this response from the applicant and I am satisfied that this comment has now been addressed.</p>

		<p>tentacles out again to resume feeding once the vibration is over or they have identified this not to be a threat. Although retrieving into the tube can provide safety from predators, it has a cost-opportunity effect reflected in less feeding time (Dill & Fraser, 1997).</p> <p>Vibration from marine piling could generate small changes in bed morphology perceptible by epibenthic fauna, however, the biotopes identified near Tibleury2 are known to have a low sensitivity to potential smothering (ES, Table 11.7, MarLIN database).</p> <p>The species composition within the site boundary is typical of the habitat and the location. The communities identified near Tilbury2 are considered typical for the estuarine conditions they are exposed to, and are generally representative of the natural environmental conditions inherent in the vicinity of Tilbury2. During the marine survey and desk-study, no marine invertebrates were recorded which had special conservation status, such as the tentacled lagoon worm, blue mussel, or lagoon sea slug. The effects from noise and vibrations to marine invertebrates is therefore expected to be negligible.</p>	
4.	<p>Previous comments: <i>It is presumed that the source levels at 1 m (as shown on Figure 4-1) were calculated using measurements in the far field and back propagating, but this is not clear in the report.</i></p>	<p>The source level at 1 m was back-calculated from far-field measurements undertaken by Subacoustech across a large number of different projects</p>	<p>I am satisfied that this comment has been addressed by the application.</p>
5.	<p><i>Furthermore, regarding the additional conversion factor used to determine the equivalent SEL for a pile strike, the report should explain this link. There is no general relationship between single-strike SEL and peak SPL, although some empirical approximations have been made based on measurements. Lippert et al. (2015), for example, makes an empirical conversion between the SEL and the peak-to-peak SPL for impact pile driving.</i></p>	<p>The statement in the report is possibly misleading (page 11). There was no conversion undertaken between peak SPL and SEL, the conversion is from a measured pile diameter to the proposed pile diameter and as such it is a scaling rather than a conversion. The SEL source level was scaled from measurement data in the same way as the peak SPL source level. In section 4.3 of the report (page 11), the sentence starting: "An additional conversion factor..." can be considered as meaning "The same scaling approach..."</p>	<p>I am satisfied that this query has been addressed by the applicant.</p>

<i>Dredging and disposal</i>			
6.	In section 5.12 of the ES it is stated that “Maintenance dredging will be needed, which has been assumed to require the removal of up to 100,000 cubic metres of material per day.” The MMO assume this should be ‘per annum’ although this should be clarified and amended	Noted. Section 5.12 of the ES should read: ‘... of material <i>per annum</i> ’. This is stated correctly in the Marine Ecology chapter, Table 11.1 of the ES.	Acknowledged – closed.
7.	In section 11.165 it is stated that ‘intertidal and subtidal habitats and communities that are present near to Tilbury2 are not sensitive to contamination’, although no supporting evidence for this is provided. Can you provide some further justification for this?	The sensitivity of each habitat to potential effects from Tilbury2 is presented in Table 11.7 of the ES, including contamination. The sensitivity values for each biotope are derived from the Marine Life Information Network database as referenced in Table 11.7.	Acknowledged – closed.
<i>Plankton</i>			
8.1	The ES states zooplankton and ichthyoplankton surveys undertaken at the site in 2007 and 2008 are considered to be representative of the present-day community (sections 1.104 and 1.109). However, as this data is approximately 10 years old, it is recommended that this data be supplemented with more up-to-date information to support this conclusion.	PoTLL's position, as set out in the ES, is that it is unlikely that the species composition will have changed within the Thames area to such a degree as to render the assessment obsolete. This data is from the EA and is the most up-to-date data available known to the applicant.	Although I am still of the opinion that more up-to-date information should be used wherever possible, I am in agreement that the species composition is unlikely to have changed so much as to render the assessment obsolete in this case. No further action necessary.
8.2	More information on the assigned “low” value/sensitivity of the plankton receptor would be appreciated. Although no protected zooplankton or phytoplankton species were identified, the larvae of two fish species of conservation concern were recorded in the area. These were smelt and European eel, a species that is currently in decline throughout Europe and has targets set by the EU relating to the return of adults to the catchment. Due to the conservation importance of these species, it is suggested that the value/sensitivity classification of	PoTLL recognises that ichthyoplankton should have the sensitivity value ‘medium’ as this receptor includes eggs from smelt and European eel which are classed as fish of national importance (Table 11.26 of the ES). However, even with this changed value, it is considered that the residual effects (that is, after applying bespoke mitigation measures) are not expected to be significant.	I appreciate that PoTLL recognises that the sensitivity value of ichthyoplankton should be changed to medium. I also agree that, following the implementation of the mitigation measures outlined in the ES, effects are unlikely to be significant. No further action required.

<p>8.3</p>	<p>plankton, or at least ichthyoplankton, is increased</p> <p>The ES also identifies that there were elevated contaminant levels at a sampling station in the approach channel dredge area. As a number of these contaminants mercury and lead) are categorised as causing biological effect, the magnitude of effect from WID in the approach channel is considered medium. However, as the plankton receptor is classified as “low” value/sensitivity, the significance of this impact is considered “minor”. In this case, the levels of these metals are below Cefas AL2 and therefore unlikely to cause a significant impact to the plankton community. However, it should be noted that even low concentrations of lead can be toxic to phytoplankton (Cordero et al., 2005), and that bacteria and phytoplankton have both been found to accumulate metals (Rossi and Jamet, 2008), which is detrimental to food-webs.</p>	<p>PoTLL has committed to undertake backhoe dredging (rather than WID) in the approach channel where the 2017 sampling found high concentration of metals and not to dispose of these sediments at sea. This will be able to be controlled through the operation of the DML. Furthermore, the contaminants in the sediments to be removed through WID are not considered to present a significant risk to phytoplankton because: WID makes bed sediments travel on a denser layer of water near the bottom of the river, while phytoplankton lives near the surface of the river to use the sunlight; and contaminants are likely to remain bound to the sediment.</p>	<p>I appreciate PoTLL’s consideration of the contaminant risk and agree that, if these measures are followed, the risks to the plankton receptor are unlikely to be significant. No further action required.</p>
<p>8.4</p>	<p>The ES states that plankton in the Thames are resilient to change, and therefore classified as “low” sensitivity. However, no indication is made as to how that conclusion was formed.</p>	<p>Plankton is classified as ‘low’ sensitivity because of its high abundance and resilience (evidenced by the reoccurrence in surveys), as per Table 11.4 of the ES. The exception is ichthyoplankton which is discussed in previous comment above.</p>	<p>I appreciate the extra information provided. No further action required.</p>

Fish and fish ecology

<p>9.</p>	<p>Previous advice: Minor Comment: <i>in relation to the point above, to the best of my knowledge neither Chapter 11 nor Chapter 17 detail the expected timing of any piling works. I note that it is estimated that it would take approximately 6-8 hours to install a pile, one pile per day would be installed and that the marine piling works are anticipated to take approximately 3 months. However, the months when piling is expected to take place</i></p>	<p>The time of year that piling in the marine environment will take place will depend on appointment of an appropriate contractor and the final construction programme. The River Thames is used year-round by fish and marine mammals, and so there are environmental implications of piling throughout the year. Rather than restricting piling to a particular season, a more effective mitigation approach for underwater noise caused by piling (which is the main concern with marine piling), is considered to be the establishment of a daily non-piling window of at least 14</p>	<p>We acknowledge that the timing of the piling works will be dependent on the construction programme and contractor appointment. Hence this information may not be known and has therefore not been provided by the applicant in response to our previous comments.</p> <p>We also acknowledge that the applicant will employ piling-related mitigation, thereby</p>
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9.1	<p><i>have not been outlined. This information may be presented in the project description which I have not reviewed.</i></p> <p>Whilst the errata chapter 5 of the ES provides the details of the piles, as mentioned in 2.2 of this letter, it would be helpful to have an indication of when piling is expected to be undertaken and also of the expected duration of piling works.</p>	<p>hours; an approach which has been recommended by the MMO during consultation.</p> <p>Additionally, the scheme will adhere to the JNCC protocol for piling in the marine environment.</p>	<p>seeking to mitigate adverse impacts to fish receptors, including smelt.</p> <p>We defer to comments from colleagues in the Noise and Bioacoustics Team regarding the sufficiency of the proposed 14-hour non-piling window to mitigate piling underwater noise impacts.</p>
10.1	<p>Previous advice: Minor Comment: <i>Cefas advisors previously raised that any potential for simultaneous piling should be accounted for and assessed within the EIA. As simultaneous piling has not been assessed the applicant should either clarify whether simultaneous piling is likely to occur or include an assessment of simultaneous piling within the ES. I do acknowledge that simultaneous piling may have been addressed in the ES project description, which I have not reviewed.</i></p> <p>Section 11.268 of the revised Marine Ecology chapter states that only 1 pile will be installed per day. Therefore, it is assumed that simultaneous piling will not be undertaken as part of this development. On this basis, it is recommended that clarification is given on this.</p>	<p>There will be no simultaneous piling as part of the marine works.</p>	<p>Clarification provided by the applicant addresses our previous comments.</p>
11.	<p>Previous advice: <i>The underwater noise assessment modelling is based on fish that have a swim bladder which is involved in hearing (Popper et al., 2014) and this constitutes the worst-case and should be used for the EIA noise assessment. The width of the River Thames at the Tilbury2 site is approximately 900m and the predicted noise TTS impact ranges for a 3.5m pile extend for a maximum distance of 3330 m</i></p>		

<p>11.1</p>	<p><i>(east modelled position at Mean High Water Springs), which is beyond the width of the river channel. Therefore, potentially, for some of the underwater noise modelling scenarios presented in the ES, an acoustic barrier may occur during piling activities and this could cause temporary and behavioural effects on fish receptors. As the TTS threshold is applicable to fish without a swim bladder and fish which have a swim bladder that is not involved in hearing, fish receptors present in the vicinity of the piling works may be impacted and affected during some piling operations. Consequently, the significance of the potential impact of underwater noise construction effects on fish receptors is unlikely to be negligible.</i></p> <p>The previous advice collectively raised concern that, based on results from the modelling, piling activity has the potential to cause an acoustic barrier to fish transiting past the Tilbury2 site. Consequently, the significance of potential impacts of underwater noise construction effects on fish receptors is unlikely to be negligible. Having reviewed the revised marine ecology chapter and underwater noise assessment, it is not evident that the above comments have been taken into account, or that a revised assessment of likely effects has been carried out.</p>	<p>PoTLL has reviewed the assessment in relation to underwater noise construction effects on fish receptors. After this review, the applicant acknowledges that there is potential for the piling to cause temporal changes in the behaviour of fish. As such, effects on fish receptors could be considered to be minor rather than negligible.</p> <p>The modelling results show that piling of the larger piles (worst case) could result in recoverable injury within 250m of the noise source and temporary hearing loss of fish up to 3,600m from the noise source (temporary loss of hearing lasting between hours to a few days depending on hearing bandwidth). Behavioural effects are anticipated to occur at intermediate ranges (of the order of hundreds of metres from the piling) with a moderate risk of behavioural effects. Beyond these distances there is a low risk of effects, with a moderate risk for the most sensitive species of fish.</p> <p>The width of the Thames at Tilbury2 is approximately 900m, which means that it is sufficiently wide for fish to passage up and down the river while piling is operational, and avoid the area where recoverable injury could occur, though they would still be subject to potential temporary hearing loss and behavioural effects. The predicted noise range for up to 3,600m means that fish could suffer a</p>	<p>Clarification provided by the applicant addresses our previous comments. It would be useful if the review and outcomes of the review could be documented for completeness, such as in a ES addenda.</p>
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		<p>temporary auditory injury if they continued past the works while piling was occurring, or they could halt and delay their passage until the noise has stopped.</p> <p>It is anticipated that piles would take approximately 6-8 hours to install and one pile would be installed per day. Working hours during construction for piling will be restricted to 08.00 to 18.00 Monday to Friday, and 08.00 to 16.00 on Saturdays and Sundays (secured through the CEMP) therefore providing a non-piling window of at least 14 hours per day when fish would be able to migrate past Tilbury2 without being subject to any noise effects. This will provide more than a full tidal cycle every day for fish to utilise uninterrupted. Any delay to movement/migration caused by piling noise would therefore last only a few hours and would only occur during the marine piling phase of the works which is anticipated to take approximately 3 months to complete. Embedded mitigation includes adherence to the JNCC piling protocol which is recommended by the MMO, and includes the mitigation of soft start procedures; and a daily non-piling window, which is considered more appropriate than seasonal piling restrictions as key internationally designated species including Atlantic salmon and river lamprey utilise the Thames Estuary year-round.</p> <p>After applying the proposed mitigation measures, the residual impacts to fish receptors are expected to be limited to a relatively short temporal disturbance, and the effects are expected to be minor and therefore not significant.</p>	
Benthic			
	<p>Previous comment: <i>Have the ecological features of the seawall been assessed for impacts as part of the EIA?</i></p>	<p>The ecological features of the sea-wall were considered and assessed in the ES. The current sea defences comprise a sheer vertical-sided concrete structure described as in the ES as the 'sea wall' (ES paragraph 11.37). It is continuous and unbroken along its length within the Order Limits. This concrete sea-wall is of negligible intrinsic ecological interest and was therefore not subject to further detailed assessment within the Terrestrial Ecology chapter of the ES. The marine ecology features of the sea wall were scoped out of the EIA since no such features are present on the wall. The lack of marine features on the sea</p>	<p>Sufficiently addressed.</p>

		<p>wall is likely to be due to the fact that water does not maintain contact with this structure for a period of time long enough that would elicit the attachment of marine species (such as molluscs or sea sponges) to the wall.</p> <p>Beyond the toe of the concrete sea-wall is the collapsed remains of the former sea defences. These comprise a discontinuous rock armour of varying width and slope (ES paragraph 11.37), which is referred to in the ES as the 'rock armour'. As this feature has structurally degraded, it has become colonised with coastal saltmarsh (ES paragraphs 10.169 and 10.220; Document Reference 6.1) and intertidal mudflat (ES paragraphs 10.224, 11.38 and 11.41).</p> <p>The 'rock armour' has therefore been assessed within the ES under the headings of 'coastal saltmarsh' and 'intertidal mudflat'. Specifically, coastal saltmarsh is considered in paragraphs 10.362 to 10.364 (Terrestrial Ecology); and intertidal mudflat is considered both at paragraphs 10.362 to 10.364 (Terrestrial Ecology) and at paragraphs 11.152 and 11.180 (Marine Ecology).</p> <p>(Note that the surveys which informed these habitat descriptions extended beyond the Order Limits, and therefore descriptors such as 'soft maritime cliff/slope' as presented at ES paragraph 11.37 refer to elements outside of the Order Limits).</p>	
	<p>Previous comment: <i>The spatial extent and magnitude of resuspension and sedimentation resulting from the dredging was ascertained subsequent to discussions regarding the appropriate scale for the baseline assessment. It is apparent that the spatial extent of this impact is far greater than the area encompassed by the intertidal and subtidal surveys. Is there any evidence to support that the notion that the habitats observed in the survey extend over the entire spatial area of impact resulting from the dredge? If not, one may conclude that the baseline conditions of the full area of potential impact have not been described.</i></p>	<p>Figure FWQ Q-1.2.29-A (Fig. A) and Figure FWQ Q-1.2.29-B (Fig. B) -attached- show the habitats over the spatial extent affected by the dredge. Figure A shows data from the Priority Habitat Inventory published by Natural England, and Figure B shows the broad-scale habitat of the Thames used to determine Higher and Lower sensitivity habitats for WFD compliance assessments, also published by Natural England.</p> <p>The focus of the figures is principally on the area east of Tilbury2, which more effectively illustrates the habitats that could be affected by water injection dredging undertaken during ebb tide.</p> <p>The figures show that the habitats present at Tilbury2 are very similar to the habitats observed in the rest of the area affected by the dredge. In addition, no particularly sensitive</p>	<p>Sufficiently addressed. Although the two figures were not provided with this advice request, the statements "<i>The figures show that the habitats present at Tilbury2 are very similar to the habitats observed in the rest of the area affected by the dredge</i>" and "<i>no particularly sensitive habitats are present, including mussel beds or subtidal kelp</i>" convey the information for which I was seeking.</p>

		<p>habitats are present, including mussel beds or subtidal kelp.</p> <p>No significant sedimentation is predicted outside the dredging area (i.e. net accumulation on the seabed is generally less than 1mm outside the dredging area), and averaged suspended sediment concentration never exceeds 20mg/l. Compared to the ambient concentrations of up to thousands of mg/l this sediment concentration is negligible (Hydrodynamic Modelling Report), and no significant impacts are expected.</p>	
	<p>Previous comment: <i>In section 1.145 it states that "levels of suspended sediments are within background concentrations, apart from within a localised area of WID, changes in dissolved oxygen levels are mostly predicted to be within baseline conditions". While increases resulting from the activity may be within background levels, the effects will be cumulative to background conditions which raises the possibility for impacts. As such, I do not think this statement is always justified.</i></p>	<p>Levels of predicted suspended sediments due to dredging can be considered to be within background concentrations when they would be within the natural range of variability. Predicted average suspended sediment concentrations from Tilbury2 do not exceed 20mg/l. This can be compared to the existing concentrations in this area of up to thousands of mg/l. The Tilbury2 sediment concentration is therefore negligible in this context. Water injection dredging is predicted from modelling to result in temporary elevations of suspended sediment levels to a maximum of 200mg/l above background concentrations in very localised areas in the immediate vicinity of the dredging area, which is not considered to be significant in relation to cumulative effects to marine receptors.</p>	<p>Sufficiently addressed.</p>
	<p>Additional comments:</p> <p>Further justification for the classification of the 'intertidal community' receptor group being of 'negligible' value (Section 11.136). While these organisms are widespread and are unlikely to contain any species of designatory importance, their functional importance cannot be overlooked. Invertebrate abundances within these intertidal areas have been shown to be high and it is likely that they provide an important food source for the qualifying features of national or European designatory sites. I would consider, given this, that their value should be regarded as 'low' as a minimum.</p>	<p>Although the marine receptor being assessed is the 'intertidal community' we understand that species in the intertidal area can provide a food source for birds, and any impact to them, could affect birds too.</p> <p>Given the abundance of invertebrates found in the intertidal area available for birds, and the presence of 'common species' 'representative of this area of the river', a value of 'low' for the 'intertidal community' is believed to be appropriate.</p> <p>However, even with the value of the 'intertidal community' changed to 'low', it is considered that the residual effects (that is, after applying bespoke mitigation measures) are not expected to be significant, including effects to birds.</p>	<p>Sufficiently addressed.</p>

	<p>The implications of this as part of the associated risk assessment would need to be addressed.</p> <p>In accordance with the above statement, I would suggest that the value of 'subtidal habitat and communities' also be regarded as 'low' as a minimum, regardless of their lack of designatory importance. Again, the implications of this for subsequent risk assessments would need to be considered.</p>	<p>The 'subtidal community' identified at Tilbury2 lacks protected species and their importance as a food source for qualifying features of designated sites is believed to be minor. The magnitude of effect from the scheme to the 'subtidal community' is not expected to be significant.</p>	
	<p>In Section 11.148, depth-averaged concentrations of suspended sediments are used to assess impacts. However, benthic invertebrates are likely to be exposed to bottom concentrations of suspended sediments which are likely to be much higher and thus, such values should be quoted and used as a basis for this assessment.</p>	<p>Relative to background concentrations of 1,600mg/l (near bed) and 1,300mg/l mid depth for fines and 80mg/l (near bed) and 30mg/l (mid depth) for sand, elevated suspended sediment concentrations are limited to the immediate area of the dredge (ES pa.11.237).</p>	<p>Sufficiently addressed.</p>
	<p>Given the magnitude of impact in suspended sediments in the vicinity of the dredge area, I would consider that the magnitude of effect on the receptor groups quoted in Table 11.18 to be too low. While the magnitude will undoubtedly vary as a diminishing gradient from the source of the dredge, I would consider that impacts to benthic invertebrates to be at least minor. There will be a notable loss and/or reduction in such assemblages for a certain time post-dredging and I do not consider that either negligible or low adequately reflect this.</p>	<p>Noted. Dredging will cause disturbance and in some cases potential loss of benthic invertebrates in the dredge area. However, given the relative abundance of species and the lack of species of special importance for conservation, the impact to these communities caused by dredging is expected to be minor and will not result in a significant effect.</p>	<p>Sufficiently addressed.</p>
	<p>It is stated that the highly insoluble nature of perylene, which renders it permanently sediment-bound, limits the possibility of it being released through dredging and impacting water quality (Section 11.162). Can this statement be clarified as although sediment-bound, perylene may still possibly</p>	<p>Given the nature of perylene, this chemical compound is unlikely to dissolve into the water column and affect water quality.</p>	<p>Sufficiently addressed.</p>

	affect water quality?		
	<p>In Section 11.167 it is stated that 'the benthic community is not sensitive to contaminants' as the chemical analyses results were typical for the Thames Estuary. The chemical assessment is primarily undertaken to assess suitability for sea disposal following dredging and samples are taken below the sediment surface (to the dredge depth). As the observed chemical concentrations are based on samples taken to greater sediment depths than those which the opportunistic species in this region will inhabit, one must be careful when making direct links between the fauna and the results from chemical assessments. It is possible, for example, that they are exposed to concentrations lower than those observed through the contamination assessment procedure.</p>	Noted.	Sufficiently addressed.
	<p>The statement that species may survive water injection dredging (Section 11.173) should be backed up by references otherwise it appears speculative. Moreover, should they survive this process, they are likely to be transported via hydrodynamic processes to areas away from the dredge site which would still constitute this impact as a 'loss' as opposed to a 'disturbance'.</p>	<p>Noted. As stated above, dredging will cause disturbance and in some cases potential loss of benthic species in the dredge area. However, the footprint of the dredge area is small in relation to the amount of similar substrate that is present in the wider area.</p> <p>Furthermore, the berthing pockets were previously dredged annually by RWE up until 2011, demonstrating that the removal of this habitat would not lead to a permanent effect on the integrity or ecological function of the wider area, and the riverbed would be recolonised with species from the surrounding area. Recovery within the dredge footprint is expected to begin immediately after dredging and occur in the short to medium term. The magnitude of impact caused by dredging is expected to be minor and will not result in a significant effect.</p>	Sufficiently addressed.