

**PLANNING ACT 2008**

**THE ABLE MARINE ENERGY PARK DEVELOPMENT CONSENT ORDER 2012**

**SUMMARY OF WRITTEN REPRESENTATION**

**PLANNING INSPECTORATE REFERENCE NUMBER: TR030001**

**PLANNING INSPECTORATE REFERENCE NUMBER FOR MMO: ABLE – 0016**

**MMO INTERNAL REFERENCE NUMBER: DC9172**

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## **1. The Able Marine Energy Park**

- 1.1. The DCO Application seeks authorisation for the Able Marine Energy Park (AMEP). The Project would comprise a range of terrestrial and marine developments and several work items have the potential to impact on the marine area.

## **2. Scope of these representations**

- 2.1. The MMO's written representation provides an update on the progress made with the Applicant regarding issues initially raised in the relevant representation, and in view of discussions that have taken place with the Applicant. The written representation outlines those parts of the DCO Application with which the MMO agrees, those parts with which the MMO does not agree, and those issues which are outstanding.

## **3. Update on the MMO's comments on licensing requirements under Part 4 of the 2009 Act**

- 3.1. The MMO's written representation provides a list of activities being undertaken which require a licence under s. 66 of the 2009 Act as agreed with the Applicant.
- 3.2. The MMO is not yet satisfied that an adequate assessment of the marine works has been presented in the application documents and requests further information from the Applicant.

## **4. Update on the MMO's comments on the DCO**

- 4.1. The MMO's relevant representation as submitted on 2 April 2012 contains the MMO's detailed comments on the DCO. The comments made in the MMO's relevant representation remain relevant and should be referred to alongside the written representation.
- 4.2. The MMO has continued to discuss the drafting of the DCO and Deemed Marine Licence with the Applicant. The MMO understands that the Applicant will respond to the MMO's comments in their written representations on 27 June 2012 and include a revised draft of Schedule 8, the Deemed Marine Licence.
- 4.3. Since the MMO has not had sight of these comments or the revised draft DCO, the comments made in the MMO's relevant representation remain outstanding. However, the MMO considers that those comments can be addressed through modifications to the drafting of the DCO and Deemed Marine Licence at Schedule 8.

## **5. Update on the MMO's comments on the environmental impact assessment**

- 5.1. Regular meetings have been held between the Applicant, the MMO, the Environment Agency and Natural England.

- 5.2. The Applicant has undertaken to provide additional information in order to address questions and issues raised. As these reports have either only recently been circulated or are still outstanding, the MMO is not in a position to provide detailed written advice to the ExA at this time, but provides updates where possible.

**Marine Management Organisation**

**22 June 2012**

**Annex 1 – MMO’s relevant representations submitted 2 April 2012**

## PLANNING ACT 2008

## THE ABLE MARINE ENERGY PARK DEVELOPMENT CONSENT ORDER 2012

## RELEVANT REPRESENTATION

MMO REF: DC9172

IPC REF: TR030001

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## The Able Marine Energy Park

- 1.1. On 23 February 2012, the Marine Management Organisation (the “MMO”) received notice under section 56 of the Planning Act 2008 (the “2008 Act”) that the Infrastructure Planning Commission (the “IPC”) had, on 12 January 2012, accepted an application made by Able Humber Ports Limited (the “Applicant”) for an order granting development consent (the “DCO Application”) (MMO ref: DC9172; IPC ref: TR030001).
- 1.2. The MMO was established by the Marine and Coastal Access Act 2009 (the “2009 Act”) to make a contribution to the achievement of sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas. The UK Government’s Marine Policy Statement forms the framework for the MMO’s management of the marine area.
- 1.3. Under section 102 of the 2008 Act, the MMO is an interested party for the examination of Development Consent Order (“DCO”) applications in the marine area.
- 1.4. The DCO Application seeks authorisation for the Able Marine Energy Park (AMEP), which involves a quay of solid construction on the south bank of the river Humber together with an ecological compensation scheme comprising both temporary and permanent habitat creation on the north bank. Associated development includes dredging and land reclamation, onshore facilities for the manufacture, assembly and storage of marine energy installation components. Ancillary matters include compulsory purchase of land, harbour regulation and the diversion of two footpaths (the “Project”).
- 1.5. The Project would comprise a range of terrestrial and marine developments. Several work items have the potential to impact on the marine area. These representations reflect the MMO’s marine management functions and the MMOs understanding of the legislative regime for the proposed works.

## 2. Scope of these representations

- 2.1. This document comprises the MMO’s initial comments in respect of the DCO Application in the form of a relevant representation. This is without prejudice to any future representation the MMO may make about the DCO Application throughout the examination process. This is also without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for anything else.
- 2.2. These representations comprise:
  - the MMO’s comments on the pre-application engagement process for the Project – **section 3**
  - the MMO’s initial comments on the licensing requirements of the marine works under the 2009 Act. – **section 4**

- the MMO's initial comments on the draft DCO – **section 5**
- the MMO's initial comments on the Environmental Statement – **sections 6, 7 and 8**
- the MMO's initial comments on the information to support a Habitats Regulations Assessment – **section 9**
- contact details for officials within the MMO – **section 10**

2.3. Due to the volume of material presented in the DCO Application, it may be that the Applicant has presented information dealing with issues raised in these representations that the MMO has not yet come across following its initial assessment of the DCO Application. The MMO will continue to consider the DCO Application and reserves the right to add to, amend or withdraw, from time to time, part or all of these representations.

### **3. Pre-application consultation**

- 3.1. The MMO has been consulted by the Applicant during the pre-application stage of the DCO Application process by way of one formal consultation under section 42 of the 2008 Act.
- 3.2. The Applicant has provided the MMO with additional material, undertaken a number of non-statutory consultations and held a number of meetings with the MMO throughout the pre-application process. Throughout this process, the MMO have provided written and verbal feedback on a number of documents as detailed in Annex 1. The MMO has also worked closely with Natural England (NE) and the Environment Agency (EA) to provide coordinated advice where appropriate.
- 3.3. The MMO considers that the pre-application engagement process has not been timely or appropriate given the piecemeal submission of documents for review, some absence of evidence, various technical shortcomings and the time constraints imposed. A tri-partite briefing letter from the MMO, NE and the EA was submitted to the Applicant, and copied to the IPC, on 30 June 2011 detailing the issues each of the agencies had identified at the time, provided at Annex 2.
- 3.4. It is disappointing that many of the issues raised by the MMO in respect of the Environmental Statement (ES), Habitats Regulations Assessment (HRA) and supporting documents during the pre-application consultation have not been resolved in the final submission to the IPC (see sections 6, 7 and 8 of these representations). In some instances, where comments had previously been made, the sentence or paragraph they relate to have simply been removed from the final ES (for example, see paragraphs 8.27 and 8.30).
- 3.5. The MMO has provided comments throughout the pre-application engagement process to the Applicant on the drafting of Schedule 8 to the DCO "Schedule 8 the deemed marine licence under Part 4 (Marine Licensing) of the Marine and Coastal Access Act 2009" (the "deemed marine licence").

- 3.6. The MMO has advised the Applicant of the MMO's role in monitoring, variation and enforcement of the deemed marine licence post-consent, the importance of identifying all licensable marine works and undertaking a robust environmental impact assessment of those works on the marine environment, and of the importance of consultation on the drafting of the deemed marine licence.
- 3.7. The MMO has repeatedly advised the Applicant that the pre-submission drafts of the deemed marine licence would not be fit for purpose post-consent. Despite this, a significant number of issues remain outstanding (see paragraphs 5.11 to 5.51) and the draft as submitted to the IPC would not allow the MMO to fulfil its statutory obligations post-consent.
- 3.8. Following the IPC's acceptance of the DCO Application, the MMO has continued to work closely with the Applicant to improve the drafting of the deemed marine licence and a scheduled programme of joint meetings over the next three months with NE, the EA and the Applicant to develop Statements of Common Ground on the ES and HRA have been arranged.

#### **4. Licensing requirements under Part 4 of the 2009 Act**

- 4.1. Any marine activity described under Part 4, s.66 of the 2009 Act requires a licence unless a relevant exemption applies. This includes the construction, alteration or improvement of any works in over or under the seabed, below the level of mean high water springs and any works which involve the deposit or removal of substances or objects below the level of mean high water springs within the UK marine area (amongst other activities).
- 4.2. For Nationally Significant Infrastructure Projects ("NSIPs"), the 2008 Act enables DCOs for projects which affect the marine environment to include provisions which deem marine licences. Alternatively, applicants may seek consent for a marine licence directly from the MMO rather than having it deemed in a DCO.
- 4.3. For post-consent monitoring and enforcement purposes it needs to be clear in the deemed marine licence what activities have been licensed and the conditions imposed on that licence in respect of each of the licensed activities.
- 4.4. The Applicant has identified the following activities as licensable under the 2009 Act and included them in the deemed marine licence:
- construction of the quay
  - construction of the pumping station
  - capital dredging
  - maintenance dredging
  - deposit of dredged arisings.
- 4.5. No detailed descriptions of these works are provided.



4.6. The MMO has assessed the entirety of the information provided. Although not all licensable activities are presented together in a coherent manner, the MMO has identified the following activities as licensable under the 2009 Act:

- construction of the quay, to include:
  - piling (perimeter, sheet metal and anchor)
  - rock armour protection
  - land reclamation
  - construction and removal of temporary dolphins
- backfilling of a berthing pocket with stone aggregate
- construction of a new outfall structure
- works to the pumping station, to include:
  - temporary sheet pile cofferdam
  - excavation of the foreshore
  - six drainage pipes
  - stone mattressing of drainage channel
- construction of the compensation site, to include:
  - breaching of the sea wall
  - excavation of the foreshore
  - placement of excavated material in construction of new flood defence
  - erosion protection
- capital dredging of the following areas:
  - turning area
  - approach channel
  - berthing pocket
  - reclamation area for the construction of the quay
  - excavation of the foreshore at the pumping station
  - plough dredging around the E.ON and Centrica outfall structures
- disposal of capital dredged material at sea
- maintenance dredging of the following areas:
  - turning area
  - approach channel
  - berthing pocket
  - south bank channel
  - plough dredging around the E.ON and Centrica outfall structures
- disposal of maintenance dredged material at sea.

4.7. The MMO met with the Applicant on 27 March 2012 where it was agreed that these are the activities licensable under the 2009 Act as both parties understand it at this time. Other licensable activities may become apparent as the DCO Application progresses.

- 4.8. Some of these activities are mentioned in passing in various chapters of the ES, the HRA or Annexes without detailed descriptions. As such, the Application submitted does not sufficiently describe all of the activities which are licensable under the 2009 Act. It has therefore not been possible to assess whether an adequate impact assessment of the marine works has been undertaken through the environmental impact assessment (EIA) process (discussed further at in sections 6, 7 and 8).
- 4.9. In order for the activities to be included in the deemed marine licence, the Applicant needs to clearly demonstrate through the EIA process that the environmental impact of all licensable activities has been addressed and, where required, mitigated. The MMO do not believe that the ES and associated DCO Application documents currently achieves this in a clear manner.
- 4.10. Should the Applicant be able to demonstrate that a robust assessment of all activities has been undertaken as part of the EIA process, full details of the activities will need to be included within the deemed marine licence.
- 4.11. The MMO require that each activity is contained within its own discrete section with conditions to capture any mitigation required. The conditions should be developed in consultation with those bodies or persons with particular expertise in the marine aspects of the development.
- 4.12. A list of licensable activities must be developed and the Applicant must demonstrate that a full environmental impact assessment of the works has been undertaken before the deemed marine licence can be redrafted to incorporate such conditions.
- 4.13. Where relevant, the MMO has indicated where a condition on the deemed marine licence would be required. This is purely for indicative purposes and is not an exhaustive list of conditions.
- 4.14. To ensure that the deemed marine licence is fit for the MMO's purposes post-consent, the MMO would wish to be involved in the drafting of all conditions to be included on the deemed marine licence.
- 4.15. As currently drafted, the deemed marine licence would not allow the MMO to fulfil its statutory obligations post-consent but the MMO continues to work closely with the Applicant to develop this.

## **5. Draft Development Consent Order**

### Part 1, Interpretation, paragraph 2 and Schedule 10

- 5.1. The drafting here does not clearly define the jurisdiction of the harbour authority and there are no coordinates provided on the plan in Schedule 10. The MMO would advise that coordinates (in degree, decimal minutes to 3dp in WGS84) are used to define the area of jurisdiction, either here or on the plan in Schedule 10, to bring in line with current drafting practices under the Harbours Act 1964. Suggested wording is as follows:

*“Area of jurisdiction” means the area below the level of mean high water spring tides bounded by a line drawn from point A (00 degrees 00.000’N, 0 degrees 00.000’W) through point B (00 degrees 00.000’N, 0 degrees 00.000’W) to point C (00 degrees 00.000’N, 0 degrees 00.000’W) and then point D (00 degrees 00.000’N, 0 degrees 00.000’W) (based on the WGS 84 datum), shown for identification only on the plan in Schedule 10; and in the following provisions of this Order, references to the limits of the harbour shall be construed as references to the limits so shown;*

*“the WGS 84 datum” means the World Geodetic System, revised in 1984 and further revised in 2004.*

Part 2, paragraph 7, Jurisdiction of the Harbour Authority

- 5.2. This appears to be an overlap in jurisdiction created with an existing harbour authority which is not usually permissible under the Harbours Act 1964. It is of course for the Consenting Authority to determine the scope of the 2008 Act to authorise such matters with regards to the DCO Application.

Part 2, paragraph 9, Maintenance of authorised development

- 5.3. The MMO considers that this would not exempt the Applicant from the marine licensing provisions of Part 4 of the 2009 Act.

Part 2, paragraph 10, Provision of works

- 5.4. The MMO considers that this would not exempt the Applicant from the marine licensing provisions of Part 4 of the 2009 Act.

Part 2, paragraph 12, Consent to transfer benefit of Order

- 5.5. It is not clear what this provision is seeking to achieve. The transfer of part of a harbour authority is only permissible under certain circumstances under the Harbours Act 1964. It is of course for the Consenting Authority to determine the scope of the 2008 Act to authorise such matters with regards to the DCO Application but given that the transfer of part a harbour authority is a relatively uncommon event, the MMO would like some clarification as to how this would work in practice.

Part 4, paragraph 18, Discharge of water

- 5.6. The MMO considers that this would not exempt the Applicant from the marine licensing provisions of Part 4 of the 2009 Act, for example, for trial boreholes.

Part 4, paragraph 20, Authority to survey and investigate the land

- 5.7. The MMO considers that this would not exempt the Applicant from the marine licensing provisions of Part 4 of the 2009 Act, which includes the licensing of temporary works.

#### Part 4, paragraph 21, Right to dredge

- 5.8. The MMO considers that this would not exempt the Applicant from the marine licensing provisions of Part 4 of the 2009 Act as DCOs are not included in the s.75 exemptions for certain dredging activities under the 2009 Act.
- 5.9. In 21(1), the wording “*as adjoin or are near to the work*” does not provide enough clarity of the geographic extent of this provision. This should be drafted in line with recent best practice under the Harbours Act 1964 and detail coordinates and depths. The London Gateway Port Harbour Empowerment Order 2008 (s13 & Schedule 3) provides a good example of this and it is noted this is used as a reference for other provisions within this DCO.

#### Schedule 1 Authorised development

- 5.10. Schedule 1 is referred to in the deemed marine licence at Schedule 8 for descriptions of works. However, this does not include details of all licensable activities and the description does not provide sufficient detail for the purposes of the deemed marine licence (see paragraphs 4.1 to 4.15). If it is intended that this should be a reference point for the deemed marine licence it would need to include all licensable activities items with a corresponding work number and works plan to include sufficient coordinates (see paragraphs 5.15 to 5.20). Alternatively, these details could be provided for in the deemed marine licence and any reference to Schedule 1 dropped.

#### Schedule 8 Deemed marine licence

#### General comments

- 5.11. As the body responsible for monitoring, enforcement and variation of the deemed marine licence deemed should development consent be granted, the MMO must be satisfied that the deemed marine licence would allow the MMO to fulfil its statutory obligations post-consent.
- 5.12. Where applicants choose to have licensable activities under the 2009 Act deemed within the DCO the MMO would prefer that all licensable activities should be included in the deemed consent, unless there is a justifiable reason for them to be excluded.
- 5.13. As discussed in paragraphs 4.1 to 4.15, not all activities licensable under the 2009 Act have been included in the deemed marine licence. An adequate impact assessment of all of the marine works does not appear to have been undertaken in the EIA process and appropriate consultation has not been undertaken on the contents of the deemed marine licence. The deemed marine licence therefore lacks conditions required for mitigation, monitoring, and enforcement purposes and as such it is not sufficient as currently drafted to enable the MMO to fulfil its responsibilities should consent be granted.
- 5.14. The comments provided here detail the information that will be required within the deemed marine licence should the Applicant be able to demonstrate that an adequate impact assessment of the licensable activities has been undertaken. Any mitigation or monitoring arising from that impact assessment will need to be

captured in the deemed marine licence for post-consent monitoring and enforcement purposes.

- 5.15. In order for contractors and MMO enforcement officers to be clear about the works which have been licensed in the deemed marine licence, the MMO expects that each work item is described in full in its own section and include:
- description of works, including location in coordinates in degree, decimal minutes to 3dp in WGS84;
  - methodology to be used;
  - specific conditions relating to that aspect of the works which have been informed from the EIA and HRA process and any relevant consultation responses. Conditions must be drafted in consultation with the MMO.
- 5.16. In considering applications for marine licences, the MMO regularly consults with bodies including, but not limited, to:
- the Environment Agency
  - the relevant statutory nature conservation bodies, i.e. Natural England, the Countryside Council for Wales and/or the Joint Nature Conservation Committee
  - the Maritime and Coastguard Agency
  - English Heritage
  - local planning authorities
  - local harbour authorities
  - local inshore fisheries and conservation authorities
  - the Royal Yachting Association
  - the Royal Society for the Protection of Birds
  - the Corporation of the Trinity House of Deptford Strond.
- 5.17. In determining applications for marine licences, the MMO has regard to any representations made by the above listed bodies and any other person making comment during the public notification period. The MMO may then decide to grant the marine licences, to grant the marine licences subject to conditions or to refuse the marine licences.
- 5.18. Should the Consenting Authority determine that amendments to the deemed marine licence at Schedule 8 to the DCO are required, the MMO would be grateful to receive notice of the proposed amendments and be given the opportunity to provide further comment to ensure that the deemed marine licence would allow the MMO to fulfil its statutory obligations post-consent, if granted.
- 5.19. The MMO have commented on previous versions of the draft deemed marine licence and on the current draft to the Applicant prior to submitting these relevant representations. As such, all of the representations made here have been brought to the Applicants attention previously.
- 5.20. The MMO has continued to have discussions with the Applicant following the acceptance of the DCO Application by the IPC. As a result, the Applicant has provided the MMO with a revised draft deemed marine licence which has addressed some, but not all, of the comments made below. The MMO continues to work

closely with the Applicant to agree a deemed marine licence which is fit for purpose for both parties.

Detailed comments

Schedule 8 Part 1, paragraph 1

- 5.21. Work No 1 refers to the construction of the quay. This does not provide sufficient detail to make clear the full extent of the works. A clear description of the activity is required (see paragraph 5.15).

Schedule 8 Part 1, paragraph 2

- 5.22. The MMO does not consider this provision is required.

Schedule 8 Part 1, paragraph 3

- 5.23. The MMO does not consider this provision is required.

Schedule 8 Part 1, paragraph 4

- 5.24. This does not contain sufficient information. A clear description of the activity is required (see paragraph 5.15).

Schedule 8 Part 1, paragraph 5

- 5.25. Work plans 8 and 9 refer to the construction of the quay. Neither the description nor the plans provide sufficient detail to make clear the full extent of the works. A description is required including coordinates to degree, decimal minutes to 3dp in WGS84 (see paragraph 5.15).

Schedule 8 Part 1, paragraph 6

- 5.26. The MMO recommend that this be re-drafted to make clear that any changes to the works schedule also need to be agreed in writing prior to works commencing by altering paragraph 6 and including an additional paragraph as follows:

*“6. The works shall be carried out in accordance with a works schedule to be agreed in writing between the Company and the MMO prior to the commencement of works.*

*7. Any changes to the works schedule are also to be agreed in writing between the Company and the MMO prior to the commencement of works. Any changes to the works schedule may require a variation to this licence.”*

Schedule 8 Part 1, paragraphs 7, 8, 9 and 10

- 5.27. As drafted, these conditions are not worded appropriately. The MMO requires that conditions for each work item are drafted in light of all relevant consultation responses and in consultation with the MMO to ensure their suitability for the MMO's responsibilities post-consent. See paragraphs 5.16 to 5.18 for further comment.

#### Schedule 8 Part 1, paragraph 8

- 5.28. Should it be determined that this condition is required, the MMO requires that this is re-drafted such that any lighting requirements must be agreed in writing with the MMO prior to commencement of works in consultation with relevant bodies, including Trinity House and the Maritime and Coastguard Agency, should they wish to comment.

#### Schedule 8 Part 2, paragraph 11

- 5.29. Neither the description nor the plans provide sufficient detail to make clear the full extent of the works. A clear description of the activity is required (see paragraph 5.15).

#### Schedule 8 Part 2, paragraphs 12 and 13

- 5.30. Paragraph 12 states 12 (a) but there is no (b). It is not clear what these paragraphs add. Paragraph 11 should have a full description, as described above in paragraph 5.15; these paragraphs would not then be required.

#### Schedule 8 Part 2, paragraph 14

- 5.31. This does not contain sufficient information for it to be clear what the works are or where they are to take place. A clear description of the activity is required (see paragraph 5.15). Also, states 14 (a) but there is no (b).

#### Schedule 8 Part 2, paragraph 15

- 5.32. The drawings referred to do not contain sufficient coordinates for enforcement purposes. A clear description of the activity is required (see paragraph 5.15).

#### Schedule 8 Part 2, paragraph 16

- 5.33. The MMO requires that this be re-drafted to make clear that any changes to the works schedule also need to be agreed in writing prior to works commencing by altering paragraph 16 and including an additional paragraph as follows:

*“16. The works shall be carried out in accordance with a works schedule to be agreed in writing between the Company and the MMO prior to the commencement of works.*

*17. Any changes to the works schedule are also to be agreed in writing between the Company and the MMO prior to the commencement of works. Any changes to the works schedule may require a variation to the deemed marine licence.”*

#### Schedule 8. Part 3, Part 4 and Part 5. Dredging and deposit of dredged arisings

- 5.34. Parts 3, 4 and 5 need to be altered as follows in order to bring them in line with the 2009 Act and OSPAR Convention 1992. A separate section for each dredge activity is required for capital dredging and maintenance dredging. Each section must detail:

- name and location of area to be dredged with coordinates (e.g. turning area, approach channel, reclamation area, pumping station, south bank, berthing pocket, E.ON and Centrica outfalls);
- type of material to be dredged (e.g. silt, sand, gravel, clay);
- quantity in wet tonnes to be dredged in total and each year, by type;
- maximum depth of dredged area;
- method of dredging to be used.

5.35. A separate section for both disposal of capital dredged material and disposal of maintenance dredged material is required. Each section must detail:

- name and location of area to be dredged with coordinates (e.g. turning area, approach channel, reclamation area, pumping station, south bank, berthing pocket, E.ON and Centrica outfalls);
- type of material to be dredged (e.g. silt, sand, gravel, clay);
- quantity in wet tonnes in total and each year;
- name and location (in coordinates) of disposal site;
- max amount of material in wet tonnes to be deposited in total and in each year from each dredge site, to each disposal site, by material type;
- method of dredging and disposal to be used.

5.36. The Applicant must notify the MMO 10 days prior to the dredge or disposal activities commencing.

5.37. All dredge and disposal sections of the deemed marine licence must be time limited to a maximum of 3 years from the date of the first activity to bring in line with current practice under the 2009 Act and to comply with OSPAR reporting requirements.

5.38. Sampling and physico-chemical analysis of sampled material will need to be undertaken within 3 years prior to commencement of dredge/disposal operations in order to be compliant with OSPAR guidance (including dredging for land reclamation or plough dredging).

5.39. The Applicant will be required to agree sampling and analysis requirements with the MMO prior to undertaking any sampling or analysis.

#### Schedule 8 Part 3, paragraph 17

5.40. Co-ordinates need to be provided for the capital dredged area in degree, decimal minutes (to 3dp) in WGS84 projection. See paragraphs 5.15 and 5.34 to 5.35.

#### Schedule 8 Part 3, paragraph 19

5.41. The MMO requires that this be re-drafted to make clear that any changes to the works schedule also need to be agreed in writing prior to works commencing by altering paragraph 19 and including an additional paragraph as follows:

*“19. The works shall be carried out in accordance with a works schedule to be agreed in writing between the Company and the MMO prior to the commencement of works.*



*20. Any changes to the works schedule are also to be agreed in writing between the Company and the MMO prior to the commencement of works. Any changes to the works schedule may require a variation to the deemed marine licence.”*

Schedule 8 Part 4, paragraph 20

- 5.42. Co-ordinates need to be provided for the maintenance dredged area in degree, decimal minutes (to 3dp) in WGS84 projection. See paragraphs 5.15 and 5.34 to 5.35.

Schedule 8 Part 4, paragraph 22

- 5.43. The MMO requires that this be re-drafted to make clear that any changes to the works schedule also need to be agreed in writing prior to works commencing by altering paragraph 22 and including an additional paragraph as follows:

*“22. The works shall be carried out in accordance with a works schedule to be agreed in writing between the Company and the MMO prior to the commencement of works.*

*23. Any changes to the works schedule are also to be agreed in writing between the Company and the MMO prior to the commencement of works. Any changes to the works schedule may require a variation to the deemed marine licence.”*

Schedule 8 Part 5, paragraph 23

- 5.44. Co-ordinates need to be provided for the dredge and disposal areas in degree, decimal minutes (to 3dp) in WGS84 projection. See paragraphs 5.15 and 5.34 to 5.35.
- 5.45. ABP’s applications for the Green Port Hull and Hull Riverside Bulk Terminal developments also seek to dispose of non-erodible material at HU081, HU082 and HU083.
- 5.46. The MMO has considered the requirements of all developments wishing to use these sites and has concluded that the Applicant will be permitted to dispose of the non erodible material to site HU082 only (see paragraphs 7.9 to 7.28). Erodible material will be permitted to be disposed of to HU080.

Schedule 8 Part 5, paragraph 25

- 5.47. The MMO requires that this be re-drafted to make clear that any changes to the works schedule also need to be agreed in writing prior to works commencing by altering paragraph 25 and including an additional paragraph as follows:

*“25. The works shall be carried out in accordance with a works schedule to be agreed in writing between the Company and the MMO prior to the commencement of works.*

*26. Any changes to the works schedule are also to be agreed in writing between the Company and the MMO prior to the commencement of works. Any changes to the works schedule may require a variation to the deemed marine licence.”*

Schedule 8 Part 6, paragraphs 34 to 37

- 5.48. An additional paragraph should be added, or the original paragraphs amended, to stipulate that the amended works cannot commence until the MMO has agreed the amendment or variation in writing and the Company has agreed to the terms and conditions of the amendment or variation in writing.

Schedule 8 Part 6, paragraph 38 Force majeure

- 5.49. This should be drafted to be consistent with licences issued under the 2009 Act and the wording at s.68 of the 2009 Act. As such the following should be re-drafted from:

*“....and for the purposes of this paragraph force majeure shall be deemed to apply....”*

to:

*“....and for the purposes of this paragraph force majeure may be deemed to apply....”*

Schedule 8 Part 6, paragraph 44

- 5.50. The MMO requires this is re-drafted to reflect licences issued under the 2009 Act as vehicles can also be used in dredging activities from:

*“The Master or the Officer of the Watch of each of the vessels undertaking...”*

to:

*“The Master or the Officer of the Watch of each of the vessels and/or vehicles undertaking...”*

Schedule 8 Part 6, paragraphs 47-54

- 5.51. As drafted, these conditions are not worded appropriately. The MMO requires that conditions for each work item are drafted in light of all relevant consultation responses and in consultation with the MMO to ensure their suitability for the MMO's responsibilities post-consent. See paragraphs 5.16 to 5.18.

Schedules 9 and 11. General comments

- 5.52. Schedules 9 and 11 of the draft DCO contain requirements proposed by the Applicant. Some of these requirements relate to works in the marine area (see, paragraphs 5.57, 5.59, 5.61, 5.62).

- 5.53. The MMO recognises there is some overlap between the geographical jurisdiction of the MMO and the local planning authorities (i.e. between mean high water springs and mean low water).
- 5.54. The MMO has considered this and is of the view that matters which fall within the scope of the marine licensing provisions of the 2009 Act (i.e. anything below mean high water springs) are generally best regulated by conditions on marine licences. The MMO's preferred approach would be for matters arising from the works in the marine area to be dealt with by way of conditions on the deemed marine licence at Schedule 8 of the DCO, if granted, rather than by way of requirements on the DCO or in Schedule 11 of the DCO. This should minimize the risk of inconsistency between different schemes of regulation, or of a duplication of controls.
- 5.55. As such, the MMO does not support requirements on the DCO which would or could otherwise be included as conditions on the deemed marine licence and does not suggest any requirements in these representations.
- 5.56. If the IPC disagrees in principle with this approach, the MMO would be grateful to receive notice as soon as possible.

Schedule 9 Part 1, For the protection of Natural England, paragraphs 2, 3, 4, 5

- 5.57. The MMO considers that marine related conditions are best regulated through the 2009 Act for monitoring and enforcement purposes (see paragraphs 5.53 to 5.56). If these provisions remain here, it is unclear who is responsible for post-consent monitoring, enforcement and variation. This requires clarification prior to the DCO Application being consented.

Schedule 9, Part 2, For the protection of the Humber Conservancy

- 5.58. The MMO considers that this would not exempt the Applicant from the marine licensing provisions of Part 4 of the 2009 Act. Any consent required from ABP will be supplementary to this.

Schedule 9, Part 3, For the protection of the Environment Agency, paragraphs 2,3,4,5

- 5.59. The MMO considers that marine related conditions are best regulated through the 2009 Act for monitoring and enforcement purposes (see paragraphs 5.53 to 5.56). If these provisions remain here, it is unclear who is responsible for post-consent monitoring, enforcement and variation. This requires clarification prior to the DCO Application being consented.

Schedule 10 Limits of harbour

- 5.60. See comments at paragraph 5.1.

Schedule 11 Requirements, paragraph 13, Archaeology

- 5.61. The MMO considers that marine related conditions are best regulated through the 2009 Act for monitoring and enforcement purposes (see paragraphs 5.53 to 5.56). If these provisions remain here, it is unclear who is responsible for post-consent

monitoring, enforcement and variation. This requires clarification prior to the DCO Application being consented.

Schedule 11. Requirements. Paragraph 14, Ecological mitigation

- 5.62. The MMO understands that Natural England are working with the Applicant and the Humber Industry and Nature Conservation Association (HINCA) to draft three Ecological Management and Monitoring Plans (EMMP) for terrestrial, marine and the compensation site.
- 5.63. The MMO considers that marine related conditions are best regulated through the 2009 Act for monitoring and enforcement purposes (see paragraphs 5.53 to 5.56). As such, the MMO requires that the marine EMMP and any marine elements of the compensation site EMMP are approved in writing by the MMO and any monitoring and mitigation requirements are captured on the deemed marine licence. If the marine aspects of these provisions remain here, it is unclear who is responsible for post-consent monitoring and enforcement and variation. This requires clarification prior to the DCO Application being consented.

**6. Environmental Statement: General comments**

- 6.1. The MMO has provided advice to the Applicant throughout the pre-application process on draft chapters and a number of Annexes of the ES that have implications for the marine area (discussed further in sections 6 and 7 and detailed in Annex 1).
- 6.2. It is disappointing that many of the comments raised during pre-application engagement have not been addressed in the final submission. As such, most of the comments detailed in this section have been communicated to the Applicant previously.
- 6.3. As discussed in paragraphs 4.1 to 4.15, a clear description of the marine works has not been provided in the DCO Application documentation together in a coherent manner and a number of licensable activities have not been included in the deemed marine licence.
- 6.4. It is the MMOs opinion that the activities licensable under the 2009 Act have not been assessed in a clear manner across the different chapters of the ES, the associated Annexes and DCO Application documents.
- 6.5. There does not appear to be an overall cumulative and in-combination assessment. While these are mentioned in each of the various chapters, there is only reference to other ongoing projects / activities, with little quantification of their combined effects.
- 6.6. It would be useful to have an overall section on cumulative and in-combination effects, where each of the other projects could be assessed as a whole against this DCO Application, as currently it appears piecemeal and it is not difficult to assess whether a proper cumulative and in-combination assessment has been carried out.

- 6.7. The MMO has undertaken a technical review of Volume 2 of the ES on the construction of the compensation site. The MMO provide no view on the conclusions of the Habitats Regulations Assessment.
- 6.8. The MMO requests that the Consenting Authority consider the requirement for further work to address these shortcomings as part of the examination process.

## **7. Environmental Statement: Volume 1 Able Marine Energy Park**

### Chapter 2 EIA process

- 7.1. Paragraph 2.3.5: The definition of 'wider effects' needs to be reconsidered. If the effect is individually significant at a regional level, it is likely to also be significant at the local level.

### Chapter 3 Planning policy and context

- 7.2. In determining the DCO Application, the IPC is required to have regard to the Marine Policy Statement and any relevant marine plan.
- 7.3. The MMO is the marine plan authority for the English inshore and offshore regions. The Project falls within the East Inshore area, which is one of the first areas in England to be selected for marine planning. Formal consultation on the draft marine plans is due to commence in winter 2012/2013. As such, the draft marine plan is likely to become a relevant consideration in determining the DCO Application.

### Chapter 7 Geology, hydrology and ground conditions

- 7.4. The dredging of the reclamation area, anchorage trench, berthing pocket, approach channel and turning area have been considered in Chapter 7. Dredging requirements for the excavation works at the pumping station, the south back channel, of Stone Creek (mentioned in previous draft chapters of the ES but not the current one) and of plough dredging have not been included. In addition, it is not clear if the over-dredge of the berthing pocket has been accounted for in the values provided.
- 7.5. These additional dredging and disposal operations are licensable activities under the 2009 Act. The MMO would prefer for these activities to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the Applicant will need to undertake an impact assessment of these activities to do so.
- 7.6. The MMO requests that the Applicant provides details of the location and quantity of material to be capital and maintenance dredged and disposed of the sea from these additional locations. The impact assessment in Chapter 7 and the Dredging Strategy at Annex 7.6 need to be updated to include this information.
- 7.7. Once this information has been provided, the MMO will advise whether any additional sampling and analysis requirements for these activities.

- 7.8. The comments made below in paragraphs 7.9 to 7.28 are the MMO's comments on the information provided. These comments will obviously need to be updated once the additional information has been provided.

#### Capital dredging and disposal of capital dredged material

- 7.9. Disposal of dredged material is controlled under the London Convention 1972, the OSPAR Convention 1992 and the EU Waste Framework Directive. The 2009 Act provides the necessary statutory means to meet the UK's obligations under both the OSPAR and London Conventions which address the prevention of marine pollution from dumping at sea. Dredged material is classed as a waste material under the aforementioned Conventions. Once a material has entered the waste stream it is strictly controlled. The OSPAR Convention requires Contracting Parties to ensure that authorisation or regulation is in accordance with the relevant applicable criteria, guidelines and procedures adopted by the Commission, which includes requirements to ensure the material is suitable for disposal to sea and maintaining records of material which is disposed of to sea.
- 7.10. In line with OSPAR guidelines, and as conducted for disposal applications made under the 2009 Act, samples were requested for this DCO Application during the pre-application stage. In consultation with the MMO, 45 samples were collected at 23 sites at depths of surface, 1m, 2m and 3m. The samples were analysed in line with practices used for dredge and disposal licence applications the MMO receive under the 2009 Act.
- 7.11. The analysis showed that the material is acceptable for disposal to sea and this was confirmed to the Applicant in a letter to them dated 23 November 2011 and included at Annex 7.6 of the DCO Application.
- 7.12. The capital dredge material is proposed to be disposed of at disposal sites within the Humber estuary at HU080, HU081, HU082 and HU083. A total of 954,350m<sup>3</sup> of non erodible material is proposed to be deposited across disposal sites HU081, HU082 and HU083 (sunk dredge channel sites B, A and C respectively). The remaining 981,150m<sup>3</sup> of erodible material is proposed to be deposited at HU080 (Humber 1A).

#### Cumulative and in combination assessment

- 7.13. There are a number of dredging operations within the Humber some which are licensed and some at the application stage, which also utilise the disposal sites mentioned in paragraph 7.12. The dredging strategy submitted with this DCO Application does take these operations into consideration however some of the quantities used in their assessment are not accurate. Whilst the Environmental Statement references Green Port Hull, it does not include the dredging aspects of the project.
- 7.14. The Applicant has provided further information to the MMO on this in the form of a Green Port Hull Cumulative Impacts Screening Assessment. However, this assessment has been made presuming that Green Port Hull is the same as Quay 2005. Whilst the Green Port Hull project does use the existing licences granted for Quay 2005, there is additional work including infilling of part of Queen Alexandra Dock and additional dredging. Therefore the cumulative assessment screening

needs to be updated allowing for this work, particularly as most cumulative impacts surround the dredging and changes to suspended sediment and coastal processes.

- 7.15. Grimsby RO-RO will also dispose of material to HU080. This has not been included in the calculations in the Environmental Statement. The correct amounts of material from other applications are as per Table 1 below; these quantities are taken from ABPs cumulative impact assessment submitted with the Green Port Hull application to the MMO. Whilst these disposal quantities are higher than referenced in this Application, the MMO is content that the disposal sites do have the capacity to take the material described in the ES. The MMO will provide further advice on this once the details of the additional dredging requirements have been provided.

Table 1: The proposed disposal quantities of known projects disposing to disposal sites HU080, HU081, HU082 and HU083

<b>Application</b>	<b>HU081, 82 &amp; 83; Sunk dredge channel A,B &amp; C (m<sup>3</sup>)</b>	<b>HU080; Humber 1A Middle shoal (m<sup>3</sup>)</b>
Able Marine Energy Park	954,350	981,150
Green Port Hull	135,850	
Hull Riverside Bulk Terminal	548,000	
Immingham Oil Terminal Approach Channel	375,000	1,597,000
Grimsby Ro-Ro	45,000	115,000
<b>TOTAL</b>	<b>2,058,200</b>	<b>2,693,150</b>

- 7.16. The sunk dredge channel sites were opened with the purpose of filling the existing pits located across the disposal sites. Therefore, material deposited at these sites, must be placed in the depressions of the sites. This can only be undertaken using bathymetry to ascertain the location of these depressions. As the construction of Green Port Hull and AMEP may now take place at the same time it is important to ensure that the material is not placed in a way that would lead to mounds being created on the seabed as this could have an effect on navigational safety. As such, the MMO stipulates that the Applicant be permitted to dispose of the non erodible material to site HU082 only.
- 7.17. To conclude, based on the figures presented in the ES, 954,350m<sup>3</sup> of non-erodible capital material is suitable for disposal to HU082 and 981,150m<sup>3</sup> of erodible capital material is suitable for disposal to HU080. The deemed marine licence at Schedule 8 must be updated to reflect this latest advice.
- 7.18. However, these comments must be viewed as preliminary and the MMO will provide further advice on this once the details of the additional dredging requirements have been provided.

#### Maintenance dredging and disposal of maintenance dredged material

- 7.19. The deemed marine licence includes maintenance dredging and disposal of maintenance dredged material. Additional information on this activity is required on the deemed marine licence as discussed at paragraphs 5.15 and 5.34 to 5.39. The

licence does not state the amounts, as is required, but it appears from the ES and annexes, it is understood that a maximum of 1,328,000m<sup>3</sup> of maintenance dredge material is proposed be deposited to HU080. This information will need to be included in the deemed marine licence.

- 7.20. As with the capital dredged material, not all of the maintenance dredging and disposal to be undertaken as part of this project is included in the current assessment.
- 7.21. The impact assessment in Chapter 7, the Dredging Strategy at Annex 7.6 and the deemed marine licence need to be updated to reflect the additional dredging requirements from the south bank channel, Stone Creek (if to be undertaken) and the plough dredging around the E.ON and Centrica outfalls.
- 7.22. HU080 has taken large quantities of material in the past and, given the dispersive nature of the Humber, the MMO considers that the disposal site has capacity to take the material as currently described in the DCO Application. However, the site will need to be monitored to ensure the material is dispersing as predicted and the MMO will require this to be a condition on the deemed marine licence with the Applicant required to agree the scope of the monitoring with the MMO prior to commencement.
- 7.23. The MMO reserves the right to amend these comments once the additional information requested at paragraphs 7.4 to 7.8 is provided.
- 7.24. The MMO requires that the Humber Baseline Document be updated to incorporate the dredging and disposal of dredged material being consented for this project. The MMO requests that this is provided to the MMO within 12 months of this consent being granted. This must be conditioned within the deemed marine licence.

#### Annex 7.6 Dredging Strategy

- 7.25. The dredging plan produced by Westminster Dredging has not been amended to reflect the correct disposal sites mentioned in the rest of the document and in the DCO Application.
- 7.26. The MMO requires that this Dredging Strategy be updated to reflect previous changes and the comments in these written representations.
- 7.27. The Dredging Strategy must also be updated to include all dredging and disposal activities to be undertaken as part of this project including the turning area, approach channel, berthing pocket, south bank channel, plough dredging, dredging for land reclamation, excavation at the pumping station and maintenance of Stone Creek, as well as any other dredge or disposal activities to take place which have not been mentioned in the DCO Application documents.
- 7.28. The Dredging Strategy must be updated and be approved in writing by the MMO prior to any dredging operations commencing. This must be conditioned in the deemed marine licence.



## Chapter 8 Hydrodynamic and sedimentary regime

### Modelling studies

- 7.29. Modelling studies have included hydrodynamic, sediment transport, sediment plume and near-shore wave transformation modelling. Both cohesive and non-cohesive sediment transport models have been used and evidence is presented of model calibration and validation.
- 7.30. However, the modelling has not been undertaken on the final proposed scheme for all component processes. This includes the final quay design and the full extent of dredge and disposal activities (see paragraphs 7.4 to 7.28 for discussion on dredge and disposal activities). The impact of these changes on the interpretation of the modelling needs explanation. The Applicant must be able to demonstrate that the results of the modelling as presented adequately assess the impact of the Project as applied for. The MMO requests that the Applicant clearly demonstrate that the modelling results which have been presented are still relevant in relation to the revised project. Otherwise the Applicant may be required to undertake additional work to be able to demonstrate that an adequate impact assessment of the Project to be consented has been undertaken.
- 7.31. In addition, impacts to Immingham Outer Harbour have not been considered and drag effects of jetties around Immingham and Humber Sea Terminal have not been included in the modelling studies. The MMO considers that the modelling should have included these omissions.
- 7.32. Annex 8.1, paragraph 5.68: It has been proposed that the design will include an allowance to “*top up*” the front 28 m of quay by 200 mm if needed, as a response to climate change. Appendix E, E.27 states that “*additional work conducted by Hydraulics Research, Wallingford*” will be undertaken to detail how this would be undertaken/enforced/assessed or the requirement monitored over time. The MMO requests that this report be provided to the MMO for further comment.
- 7.33. Annex 8.2: The response of the intertidal areas adjacent to the proposed development are largely assessed using the bed shear stress (skin friction) results presented in Chapter 8, and setting these changes in the context of the wider estuarine natural variability. Wave modelling, including investigation of wave reflection from the quay, is used, but the results do not appear to be included in the calculations of bed shear stress, which is particularly relevant in intertidal areas where wave motion is important to erosion. If this is not considered important, it should be stated and backed up with evidence. Otherwise the assessment of erosion/accretion due to the development should include wave (natural and reflected) induced shear stress. The additional impact of the reflected waves off the proposed structure on the intertidal area should also be assessed.
- 7.34. Annex 8.2, paragraphs 3.14 and 3.15 mention important data/evidence. For ease of understanding, quantification and to visualise spatial aspects, these data should also be given in graphical form, for example, a time-series of erosion/accretion maps. Additional discussion on where the accretionary area is located, how large it

is, what the rates of change are, what the spatial variability in bed level changes mentioned are and whether all of the changes are within the 0.5 – 1 m range.

- 7.35. It would appear that the drainage channels of the currently terrestrial side of the compensation site are not represented in the model. Please comment on the significance of this.
- 7.36. Notwithstanding the comments made in paragraphs 7.30 to 7.35, based on the results as presented, the description of the environment and impacts appears accurate as far as is practical. There are inherent uncertainties in sediment transport modelling and this is acknowledged in the ES.
- 7.37. Of concern is the predicted increase in the annual maintenance dredging requirement and potential interactions with the Centrica and E.ON power stations intakes and outfalls.
- 7.38. The proposed development will result in some changes to the flow speeds in some locations. It is considered that the greatest impact of these changes may be a build up of material around part of the AMEP structures. A monitoring and mitigation strategy to assess, and where required mitigate, these changes must be agreed in writing with the MMO prior to any works commencing. The MMO requires a condition to this effect on the deemed marine licence (see paragraphs 5.16 to 5.18 for further discussion on conditions for the deemed marine licence).
- 7.39. The increase in suspended material at the intake valves of the E.ON and Centrica power stations is also of some concern. Real-time monitoring of suspended sediment concentration is proposed near the power station intakes by the Applicant. A monitoring and mitigation strategy to assess, and where required mitigate, these changes must be agreed in writing with the MMO prior to any works commencing. The MMO requires a condition to this effect on the deemed marine licence (see paragraphs 5.16 to 5.18 for further discussion on conditions for the deemed marine licence). Consultation with the power station operators (Centrica and E.ON) will be required in designing an effective monitoring programme with suitable management trigger thresholds.
- 7.40. Construction of a new outfall structure is discussed as potential mitigation for the potential increase in suspended material at the intake valves of the power stations. The Applicant will require a licence under the 2009 Act for construction of a new outfall. The MMO would prefer for this to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any assessment of this activity in the ES which would be required for the licence to be deemed within the DCO.
- 7.41. The DCO Application recognises that monitoring and maintenance of the flood embankment around Cherry Cobb Sands will be required to ensure there are no significant impacts to coastal processes. Similarly, a monitoring plan for the impacts of the Cherry Cobb Sands site on land drainage through Stone Creek is also proposed.
- 7.42. The Applicant acknowledges the inherent uncertainties in sediment modelling and their management of this uncertainty centres on a strategy of monitoring and dredging. The monitoring plans have not yet been produced or consulted upon, but

the Applicant states that they will produce detailed monitoring plans for the Centrica and E.ON outfall and intakes structures and the flood embankment around Cherry Cobb Sands and the drainage through Stone Creek. The monitoring plans will also need to address ABPs concern regarding the extra siltation and mitigation measures should be proposed.

- 7.43. Any monitoring and mitigation plans must be agreed in writing with the MMO prior to any works commencing. The MMO requires a condition to this effect on the deemed marine licence (see paragraphs 5.16 to 5.18 for further discussion on conditions for the deemed marine licence). These plans would need to be developed in agreement with other relevant bodies, for example the Environment Agency, Natural England, E.ON and Centrica.

#### Chapter 10 Aquatic Ecology

- 7.44. With regards to table 10.13, the distance at which injuries, including Temporary Threshold Shift, could occur is more useful than the 'accumulation of energy' distance. Potentially, a marine mammal may only have to be within a certain distance of the piling once to have some auditory damage such as a Temporary Threshold Shift in their hearing.
- 7.45. Paragraph 10.6.46 states that "*in a worst case scenario, harbour porpoises may display behavioural responses within a distance of 1.7km from the piling due to the maximum rms noise during a pulse*". It then goes on to say that "*they would only suffer potential auditory damage if they regularly approach within approximately 25.0 to 38.6km of the piling*". Previous drafts of the ES stated "*in a worst case scenario, harbour porpoises may display behavioural responses over a wide area (40.4 km from the piling)*". The Applicant should clarify the position and ensure that the impact has been correctly assessed citing relevant studies where appropriate.
- 7.46. The impact of piling on migratory fish populations, including Atlantic salmon and lamprey species, during the construction period is of some concern. The impacts of piling on these species will need to be mitigated. As such, the MMO requests that the Applicant submits a piling mitigation strategy. This must be developed in consultation with other relevant bodies, in particular the Environment Agency, and be agreed in writing with the MMO prior to works commencing. The mitigation must be detailed within the deemed marine licence for monitoring and enforcement purposes.
- 7.47. The construction of the Project could cause a barrier to the migration of lamprey species along the intertidal zone as the area is reclaimed. The impact has been mentioned in Table 10.10 and in paragraphs 10.6.59 and 10.6.62, stating that the lamprey could move through other parts of the estuary. However, the MMO does not consider that this is sufficient justification for the conclusion of no significant effect.
- 7.48. Paragraph 10.8.6 states that "*a significant impact to local resident fish populations beyond those that would succumb to the loss of subtidal habitat is possible*". The only point at which any impact is mentioned is in paragraph 10.6.56. However other than to state there may be a locally significant effect, the impact is never described or quantified. Whilst the paragraph goes on to state that the conservation designations of the Humber Estuary SAC may not be affected, this is not to say the

fish populations would not be affected either. A full description of the potential impact on resident fish populations should be provided.

- 7.49. In general, many statements of impact are made but are not evidenced or backed up by appropriate references (for example, paragraphs 10.6.44, 10.6.47, 10.6.49 and 10.6.56). While there are references within paragraph 10.6 as a whole, all statements of impact need to be evidenced. Worked examples of how significance was calculated would assist interpretation.
- 7.50. An auditable methodology of significance assessment is not provided in this Chapter; there are only statements as to whether an impact is significant, in many cases, not backed up by any references. The Applicant needs to provide these methodologies for consideration. Impact tables or matrices of significance, as provided in Chapter 12, would also aid interpretation.

#### Chapter 14 Navigation

- 7.51. Once the final construction plan is developed and an accurate vessel movement plan is available, a more detailed navigational risk assessment of the construction phase should be undertaken. This should be consulted upon with relevant parties, for example the local Harbour Authority and the Maritime and Coastguard Agency, and agreed in writing with the MMO prior to works commencing. This needs to be included as a condition on the deemed marine licence.
- 7.52. Any temporary moorings required for construction of the quay must not extend any further out from the shore than the footprint of an operational vessel berthed at the completed quay.
- 7.53. Temporary pilings or mooring dolphins associated with construction of the Project must be fully extracted once the construction phase is complete.
- 7.54. The Applicant will require a licence under the 2009 Act for the construction, deposit and/or removal of any permanent or temporary pilings or mooring dolphins. The MMO would prefer for this to be deemed within the DCO in order for the project to be considered as a whole. However, the MMO has not found any environmental impact assessment of this activity in the Environmental Statement which would be required for the licence to be deemed within the DCO as discussed at paragraphs 4.9 to 4.11.

### **8. Environmental Statement: Volume 2 Compensation site**

#### Chapter 27 Planning policy and context

- 8.1. In determining the DCO Application, the Consenting Authority is required to have regard to the Marine Policy Statement and any relevant marine plan.
- 8.2. The MMO is the marine plan authority for the English inshore and offshore regions. The Project falls within the East Inshore area, which is one of the first areas in England to be selected for marine planning. Formal consultation on the draft marine

plans is due to commence in winter 2012/2013. As such, the draft marine plan is likely to become a relevant consideration in determining the DCO Application.

#### Chapter 28 Description of Development

- 8.3. Erosion protection may be required, for example concrete blocks or rockfill. The Applicant may require a licence under the 2009 Act for this activity if the activity is taking place below mean high water springs. The MMO would prefer for this to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any environmental impact assessment of this activity in the Environmental Statement which would be required for the licence to be deemed within the DCO.
- 8.4. It is not clear whether the final resulting areas of expected salt marsh, mud flat and subtidal habitat will compensate for lost habitat at the main site in a “like for like” fashion. This needs to be clarified by the Applicant.
- 8.5. The anticipated areas of mud flat and salt marsh (after five years) alongside the areas of mud flat and salt marsh lost as a result of the development have not been provided. This is required to assess the effectiveness of the proposed Compensation Site (CS).
- 8.6. The MMO welcome that the Applicant has committed to producing a monitoring and mitigation strategy and programme. This needs to be conditioned within the deemed marine licence to reflect that works cannot commence until the strategy has been agreed in writing by the MMO.

#### Chapter 32 Hydrodynamic and sedimentary regime

- 8.7. Annex 32.2, paragraph 3.1: The model performance could be tested using the adjacent coastal realignment (i.e. Paull Holme Strays). As the forcing conditions are the same, such a test would give an indication of the reliability of the model as compared to the current situation in which there are no calibration data for the area of interest.
- 8.8. Annex 32.2, paragraph 3.3.6: The suggestion that the large differences between the two models is due to model resolution (and a more uneven surface in the higher resolution model) appears speculative. Evidence for this suggestion and reasoning as to why field measurements were not taken to validate the model (in Cherry Cobb Creek, for example) should be provided.
- 8.9. Annex 32.2, paragraph 3.3.7: A potential issue with the wetting and drying of surfaces in the model is cited for spikes at points 1 and 2. However, if this were the case one might reasonably expect to observe the same behaviour at all intertidal sites. However, this is not the case. Further discussion and justification is required to identify the likely causes and whether or not the model performance is acceptable.
- 8.10. Annex 32.2, paragraph 3.3.10: The model results/performance should be compared statistically using an objective approach. On a number of the plots in Figure 7, the velocity, magnitude and phase are incorrect. For example, sites 2, 5 and 7 show significant magnitude or phase deviations between the two models.

- 8.11. Annex 32.3, paragraph 3.4.5 and 3.4.11: The CS is predicted to give an increase in the maximum average current of 44% from 0.67 m/s to 0.97 m/s between the outlet and Stone Creek. It is stated that there will be increased erosion in this area, but no formal assessment is made to show whether this is correct and, if erosion is to occur, to what levels. As significant deepening is a highly likely impact of the proposed compensation site, it should be quantified in the assessment.
- 8.12. The MMO understands that further modelling work is being undertaken by the Applicant to predict the development of the realignment site for the first 10 years. The MMO would wish to see the results of this modelling and would need to have sight of any new design for the compensation site, along with a detailed method statement which would need to be agreed prior to works commencing.
- 8.13. Annex 32.4: It has been stated that there are no data available for calibration and validation of the model. The Applicant should consider what evidence there is that this model has correctly predicted the effects of a coastal realignment, or how this may be assessed if no evidence readily exists. Although the CS under consideration here does not presently exist, there are other sites in and near the Humber estuary where similar activities have occurred. These sites would make an ideal blind-test of the model – that is the model could be run without calibration/validation and compared afterwards with field data from an established re-alignment site. This would give confidence in the model results. It would be useful to know if the model was used previously with any of the Humber sites and, if so, how well it performed.
- 8.14. Annex 32.4, paragraph 3.5.7: At point 16 there is a considerable change in flow speed. This is likely to scour a deeper channel and result in a slower speed. This model does not assess changes in bed level, which is a limitation. However, one could make predictions of the scour in the channel and use this information to model an anticipated ‘equilibrium’ channel configuration. At present the model only investigates the initial conditions rather than the hydrodynamic conditions that are likely to persist.
- 8.15. Annex 32.4, paragraph 4.3: This paragraph is important, but it is only briefly documented and reported. The time-series of bed shear stress, plotted along with the critical deposition and erosion values, would be informative and should be included. Likewise, an explanation of why the increased velocities at point 19 (Figure 14b) result in a reduction (rather than the expected increase) in the annual erosion estimate (Table 12) would also be useful.
- 8.16. Annex 32.4, paragraphs 5.1.2 and 5.1.3: The qualitatively forecast “*high erosion levels*” in the Cherry Cob Sands Creek should be quantified (i.e. erosion/accretion estimates) as for other parts of the study area. This should be done upstream and downstream of the breach where accretion and erosion (respectively) are expected.

### Chapter 33 Water quality and sediment quality

- 8.17. The land that will be flooded to create the compensation site is agricultural land. The flooding is likely to cause some material to wash into the Humber and as such the Applicant must ensure that this does not present a contamination or pollution risk to the marine environment.

- 8.18. Ground investigations were undertaken for a variety of analysis. From a marine perspective, the material was tested for metals and hydrocarbons; however the methods used are not comparable to the methodologies used by the MMO's scientific advisors at Cefas to assess contamination of the marine environment.
- 8.19. The results from locations TH11 and TH12 are higher than Cefas Action Level 2 for copper, mercury, lead and zinc; however it is unclear whether the methods are comparable to those used to determine the Cefas Action Levels. The MMO requests that details of the analytical methodologies used are provided in order to assess the comparability of this data. If it is not possible to compare the results with MMO criteria, the MMO may require re-sampling and testing using Cefas methods to ensure the direct comparison of TH11 and 12.
- 8.20. TH11 and TH12 also showed higher levels of pyrene and flouranthene than background levels in the Humber. The methods for these analyses also need to be provided to the MMO to determine the suitability of the data for a direct comparison to Cefas Action Levels.
- 8.21. Some sites were also tested for dichlorodiphenyldichloroethylene (DDE) and dieldrin however the limits of detection are several orders of magnitude above Cefas Action Level 1 (0.2 PPM and 0.001 PPM respectively). DDE and dieldrin concentrations have not, therefore, been adequately assessed for risk assessment purposes and will require further sampling and analysis.
- 8.22. The MMO understands that the Applicant is intending to undertake additional site investigation works. The MMO strongly recommend that the MMO are consulted on the scope of these works and the methodologies to be used to ensure that the results can adequately describe the contamination and pollution risk for the marine environment.
- 8.23. The MMO would require that works are not allowed to commence at the compensation site until the information requested in paragraphs 8.17 to 8.22 is provided to the MMO and the MMO has agreed in writing that the works should commence. Should the methodologies used be insufficient to be able to assess the risk of pollution to the marine environment, the MMO would require additional sampling and analysis of sediments to be undertaken place prior to works commencing. The MMO would require that this is made a condition of the deemed marine licence.
- 8.24. Paragraph 33.6.3 states "*the sensitivity of the receiving estuarine waters to contaminants is considered to be medium and the magnitude of effect to be medium, resulting in a moderate negative significant effect*". Evidence of this statement has not been provided. Where possible, appropriate mitigation should be proposed and be detailed in the deemed marine licence.
- 8.25. Paragraph 33.6.7 mentions that a soke dyke will need to be relocated. It is unclear whether this is below mean high water springs, but there is mention that the waters are saline, which implies that it is. Depending on its current and proposed location, this may require a licence under the 2009 Act. Details of the current and proposed location of the soke dyke should be provided to the MMO, as well as a brief intended method statement in order to clarify this point. Should this activity require a licence under the 2009 Act, the MMO would prefer for this to be deemed within the

DCO in order for the project to be considered as a whole. However, the MMO has not found any assessment of this activity in the ES which would be required for the licence to be deemed within the DCO.

#### Chapter 34 Aquatic ecology and nature conservation

- 8.26. Paragraph 34.6.2 states that while there will be damage to the salt marsh due to construction vehicles, but it will recover quickly. There is no evidence or references for this statement and further clarification is required.
- 8.27. Previous drafts of this chapter have mentioned that the removal of salt marsh and placement of any protective matting for vehicles tracking across salt marsh will be required during construction. There is no reference to this in the final ES; however, the applicant has agreed that there will be some excavation of the foreshore during construction. Clarification is sought from the Applicant on whether this will form part of the construction methodology. If these activities are due to occur an impact assessment should be made of them in this DCO Application for the project to be considered as a whole.
- 8.28. The removal of salt marsh and placement of protective matting below mean high water springs are licensable activities under the 2009 Act. Should they be taking place, the MMO would prefer for this to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any assessment of this activity in the ES which would be required for the licence to be deemed within the DCO (as discussed in paragraphs 4.9 to 4.11). This would need to include describe the maximum envisaged extent of matting and the impact of the matting on the marine environment. This should also be included in the in-combination and cumulative impacts assessment for salt marsh habitat.
- 8.29. Paragraph 34.8.1 states that a monitoring programme will be set up. The monitoring programme should also be designed to monitor the “like for like” and have a mitigation programme in place in case of any unforeseen issues arising. The monitoring and mitigation plan should be agreed in writing with the MMO prior to any works commencing at this site. This will also need to be conditioned in the deemed marine licence for compliance and monitoring purposes.

#### Chapter 36 Drainage and flood risk

- 8.30. Previous drafts of this chapter mentioned possible dredging of Stone Creek if siltation levels rise. Any specific reference to dredging has been removed but there is now mention of a monitoring and maintenance plan which will identify mitigation works (see paragraph 7.41).
- 8.31. The MMO requests that the Applicant clarifies whether additional dredging is likely to be required. If there is potential for additional dredging, the environmental impacts of this should be assessed in this DCO Application for the project to be considered as a whole.
- 8.32. Any dredging or disposal would require a licence under the 2009 Act. The MMO would prefer for all licences under the 2009 Act to be deemed within the DCO



alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any environmental impact assessment of this activity in the ES which would be required for the licence to be deemed within the DCO.

#### Chapter 40 Historic environment

- 8.33. Annex 2.2 notes that English Heritage is the body responsible for agreeing mitigation below low water mark. Any mitigation may need to be captured in the deemed marine licence for compliance and monitoring purposes.
- 8.34. Paragraph 40.7.1 states that detailed mitigation measures are set out in a Written Scheme of Investigation for marine and intertidal archaeology. Once agreed with English Heritage and any other relevant bodies, a copy should be provided to the MMO for agreement. Any mitigation or conditions relating to the marine environment would need to be captured in the deemed marine licence for compliance and monitoring purposes.

### **9. Habitats Regulations Assessment**

- 9.1. A likely significant effect was determined due to the effects of the project on estuarine habitats and on birds. A table detailing why other features were screened out is given in Annex D, however, it lacks detailed reasoning. Additional justifications for why features were screened out should be given, or links to relevant chapters where this is detailed should be provided within the table.

### **10. Contact details**

- 10.1. The MMO would prefer electronic communication.

- 10.2. First contact:

Anna Gerring

Email: [anna.gerring@marinemanagement.org.uk](mailto:anna.gerring@marinemanagement.org.uk)

Post: Major Infrastructure Projects Team  
Marine Management Organisation  
PO Box 1275  
Newcastle upon Tyne  
NE99 5BN

Telephone: 0191 376 2532

- 10.3. Second contact:

Shaun Nicholson

Email: [shaun.nicholson@marinemanagement.org.uk](mailto:shaun.nicholson@marinemanagement.org.uk)

Post: Major Infrastructure Projects Team  
Marine Management Organisation  
PO Box 1275  
Newcastle upon Tyne

NE99 5BN

Telephone: 0191 376 2534

**Marine Management Organisation**

**02 April 2012**

## **ANNEX 1 - Pre-application consultation and engagement between the MMO and the Applicant**

<b>Document</b>	<b>Date received</b>	<b>Date MMO response provided</b>
Environmental Scoping Report	20/09/2010	15/10/2010
Preliminary Environmental Information Report	01/02/2011	24/03/2011
Dredge Method Statement and Programme / Sampling	14/02/2011	At dredge workshop 09/03/11
Dredge Strategy	19/04/2011	n/a - for info only
Thermal Plume Modelling Assessment	21/04/2011	26/05/2011
Likely Significant Effect Report	26/04/2011	26/05/2011
Humber Modelling Report (Annex 8.1 of draft ES)	28/04/2011	03/06/2011
Cherry Cobb Sands Compensation Site (Annex 8.1 and 8.2 of draft ES)	28/04/2011	03/06/2011
Chapters 1 - 6 of Draft ES	28/04/2011	03/06/2011
Aquatic Ecology Report (Chapter 10 of Draft ES)	03/05/2011	03/06/2011
Commercial Fisheries Report (Chapter 12 of Draft ES)	05/05/2011	03/06/2011
Water and Sediment Quality Report (Chapter 9 of Draft ES)	09/05/2011	03/06/2011
Geomorphology Report	13/05/2011	17/06/2011
Water Framework Directive Assessment	07/06/2011	
Draft ES	28/06/2011	27/07/2011
Habitats Regulations Report	05/07/2011	8/07/2011 and 27/07/2011
Navigation Risk Assessment	19/07/2011	n/a - for info only
Navigation Risk Assessment	14/04/2011	03/05/2011
Revised Dredge Strategy (Revision D)	25/10/2011	23/11/2011
Draft DCO and DML	01/12/1011	05/12/2011

Presented is an overview of the documents the MMO has commented on throughout the pre-application process for this DCO Application. Alongside this, the MMO has met the Applicant on numerous occasions to discuss comments provided.

## **ANNEX 2 - Tri-partite letter to the Applicant from the MMO, NE and the EA**

## **Annex 2 – Example marine licence provided to Able UK on 18 June 2012**

## 1.1 Licence Validity

This Licence is valid only once the following have been received by the MMO:

- notification of commencement of the Licensed activity/ies; and
- receipt of acceptance of the Licence Terms and Conditions

as set out in the Licence Conditions (Section 5 of this licence)

If no notification of commencement of activity is received within 5 years of the date of issue, this Licence shall be void. Should this 5 year period lapse, a new application must be submitted and approved before any licensable activities can be carried out.

## 2 General

### 2.1 Interpretation

In this Licence, terms are as defined in s.115 of the Marine and Coastal Access Act ("the 2009 Act") and the Interpretation Act 1978 unless otherwise stated.

- a) "Licensable Activity" means any activity listed in Section 66(1) of the 2009 Act.
- b) Licensed activity/ies are those activities set out in Section 4 of this Licence.
- c) "Licence Holder" means the person(s) or organisation(s) named in Section 1 above to whom this licence is issued.
- d) "MMO" means the Marine Management Organisation.
- e) "Mean High Water Springs" means the average of high water heights occurring at the time of spring tides.
- f) "Sea Bed" means the ground under the sea.
- g) All times shall be taken to be Greenwich Mean Time (GMT).
- h) All geographical co-ordinates contained within this licence are in WGS84 format (latitude and longitude degrees and minutes to three decimal places) unless stated otherwise.

### 2.2 Contacts

Except where otherwise indicated, the main point of contact with the MMO and the address for email and postal returns and correspondence shall be:

**Marine Management Organisation  
Marine Licensing Team  
PO Box 1275  
Newcastle upon Tyne  
NE99 5BN**

**Tel: 0300 123 1032**

**Fax: 0191 376 2681**

**Email: [marine.consents@marinemanagement.org.uk](mailto:marine.consents@marinemanagement.org.uk)**

Any references to any local MMO Officer shall be the relevant officer in the area(s) located at:

**Marine Management Organisation**  
**Address to be completed depending on local office**

Tel: XXXXXX

Fax: XXXXX

Email: [XXXXX@marinemanagement.org.uk](mailto:XXXXX@marinemanagement.org.uk)

**3 Description of works**

**3.1 Description of works**

**4 Licensable activity/ies**

The following activity/ies is/are hereby licensed. The licensed activities are licensed only for those locations specified within the Activity Details below:

Activity 1	
Activity Type	Land reclamation and Construction
Location	Quay*
Description	Construction of 1275m quay on south bank of river Humber
Methodology	<p>Piling</p> <p>a. Approximately 550No. tubular and 1 100 No. sheet steel perimeter piles driven into the bed of the estuary to form the external face of the quay. Piles to be installed from named vessels moored in the estuary.</p> <p>b. Two return walls constructed between the ends of the quay and the existing flood defence wall. These structures to comprise approximately 2 300 No. steel piles driven into the bed of the estuary from named vessels and also earthwork revetments with approximately 75 000 T of rock armour protection. The earthwork revetments and the rock armour shall be constructed using land based plant.</p> <p>c. Approximately 450 No. flap anchor piles to be fixed to the landward face of the perimeter piles and seated in a trench on the bed of the estuary. Piles shall be installed from named vessels moored in the estuary.</p> <p>d. Approximately 70 No. steel anchor piles driven into the bed of the estuary and fixed to perimeter piles. Piles to be installed from named vessels moored in the estuary.</p> <p>e. Drainage outfalls and cooling water outfalls to be incorporated into the quay .</p> <p>f. Monitoring equipment fixed to buoys is to be deployed at agreed locations in the Humber Estuary during the piling works in accordance with a Mitigation and Monitoring Plan to be submitted to and approved by the Marine Management Organization following consultation with</p>



	<p>the Environment Agency and Natural England.</p> <p>Reclamation</p> <p>g. The area of estuary approximately 50 m landward of the quay perimeter piles is to be reclaimed by depositing marine dredged sands and gravels from named vessels using 'rainbowing' techniques.</p> <p>h. The remaining area of estuary enclosed by the quay perimeter piles and the two return walls is also to be reclaimed using marine dredged sands and gravels. Two granular dams are to be constructed that extend from the existing flood defence wall to the area reclaimed by 'rainbowing'. These dams will divide the remaining reclaim area into three approximately equal cells. Named vessels shall pump fluidized granular material into each cell in sequence until the reclaim area is raised to its design level. Estuarine water that is retained within each cell will overflow the dams as the fluidized material is deposited and settles within the cell. The activity will continue until all cells attain their design level.</p> <p>Fenders</p> <p>Steel plates to be attached to perimeter piles by welding and bolting. Once the steel plate is in place the fender shall be fixed to the plate by bolts. All works to be undertaken from a man basket suspended from a crane located on land.</p>
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\* as defined in Table x

Activity 2	
Activity Type	Construction and Removal
Location	Temporary Dolphins*
Description	Installation and removal of temporary dolphins by the quay on south bank of Humber
Methodology	<p>Works Methodology</p> <p>a. Seven temporary dolphins to be installed within the berthing pocket. Each temporary dolphin to comprise three tubular steel piles driven into the bed of the estuary from named plant moored in the estuary. The tubular piles will be braced with interconnecting steelwork. The dolphins to be used to moor named vessels involved in the construction of the quay, the reclamation of the estuary or the backfilling of the berthing pocket for any such works permitted by this licence.</p>

	<p>b. Monitoring equipment fixed to buoys is to be deployed at agreed locations in the Humber Estuary during the piling works in accordance with a Mitigation and Monitoring Plan to be submitted to and approved by the Marine Management Organization following consultation with the Environment Agency and Natural England.</p> <p>c. Seven temporary dolphins to be removed. Each tubular pile to be extracted from the bed of the estuary using named plant.</p>
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\* as defined in Table x

Activity 3	
Activity Type	Construction
Location	Berthing Pocket*
Description	Back filling of berthing pocket alongside the quay with stone aggregate
Methodology	Named vessels to deposit approximately 250 000 T of gravel and rock into the berthing pocket to a level not exceeding - 11mCD.

\* as defined in Table x

Activity 4	
Activity Type	Construction
Location	Pumping Station
Description	Works at the Pumping Station on the south bank of Humber
Methodology	<p>Works Methodology</p> <p>a. A temporary steel pile cofferdam to be installed through the existing flood defence and extending onto the foreshore. Six drainage pipes will be installed within the cofferdam and the flood defence wall re-constructed to its original seaward profile using inert soil materials and concrete.</p> <p>b. A section of drainage channel to be created by excavating the foreshore seawards from the outfall pipe. Material to removed down to the invert level of the drainage pipes over the width of the pipes and up to 50 m seawards of the pipes.</p> <p>c. Stone mattress to be placed within the drainage channel created on the foreshore over a distance of 20 m seawards of the outfall pipes.</p> <p>d. Works outside the cofferdam shall be undertaken</p>

	using land based plant operating from a berm formed within the south-eastern return wall.
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\* as defined in Table x

Activity 5	
Activity Type	Construction and Removal
Location	Compensation Site*
Description	Creation of managed realignment site at Cherry Cobb Sands on north bank of Humber
Methodology	<p>Works Methodology</p> <p>a. A 250 m length of existing flood defence wall on the north bank of the Estuary to be removed once a new flood defence has been constructed landward of the existing.</p> <p>b. Seaward of the breach in the existing flood defence, a channel is to be excavated through the foreshore to the same level of the breach.</p> <p>c. All material is to be removed using land based plant.</p> <p>d. All excavated material to be disposed of within the intertidal area created by the realignment of the flood defences.</p> <p>e. The following maximum quantities are to be excavated and disposed of.....</p>

\* as defined in Table x

Activity 6	
Activity Type	Construction
Location	North Killingholme Haven Pits*
Description	Works to existing sluice at North Killingholme Haven Pitts
Methodology	TBC

\* as defined in Table x

Activity 7	
Activity Type	Capital dredge and disposal of capital material
Location (source)	Quay*
Description	

Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 8					
Activity Type		Capital dredge and disposal of capital material			
Location (source)		Berthing pocket*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 9	
Activity Type	Capital dredge and disposal of capital material

Location (source)		Approach Channel*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 10					
Activity Type		Capital dredge and disposal of capital material			
Location (source)		Turning Area*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 11					
Activity Type		Capital dredge and disposal of capital material			
Location (source)		EON outfall*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted deposited per year /	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 12					
Activity Type		Capital dredge and disposal of capital material			
Location (source)		Centrica outfall*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted deposited per year /	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 13					
Activity Type		Capital dredge and disposal of capital material			
Location (source)		South bank channel at pumping station*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 14					
Activity Type		Capital dredge and disposal of capital material			
Location (source)		North bank channel at Cherry Cobb Sands*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					

Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 15					
Activity Type		Maintenance dredge and disposal of capital material			
Location (source)		Quay*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 16					
Activity Type		Maintenance dredge and disposal of capital material			
Location (source)		Berthing pocket*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*



Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 17					
Activity Type		Maintenance dredge and disposal of capital material			
Location (source)		Approach Channel*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 18	
Activity Type	Maintenance dredge and disposal of capital material
Location (source)	Turning Area*
Description	
Methodology	TBC

Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 19					
Activity Type		Maintenance dredge and disposal of capital material			
Location (source)		EON outfall*			
Description					
Methodology		Plough			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 20	
Activity Type	Maintenance dredge and disposal of capital material
Location (source)	Centrica outfall*

Description					
Methodology		Plough			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 21					
Activity Type		Maintenance dredge and disposal of capital material			
Location (source)		South bank channel at pumping station*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

Activity 22

Activity Type		Maintenance dredge and disposal of capital material			
Location (source)		North bank channel at Cherry Cobb Sands*			
Description					
Methodology		TBC			
Material	Specific gravity	Maximum extraction depth	Tonnage extracted / deposited per year	Total licence tonnage	Area deposited to*
Boulder					
Cobble					
Gravel					
Sand					
Silt					
Clay					

Boulder (>256mm) Cobble (64-256mm) Gravel (2-64mm) Sand (62.5µm-2mm) silt (31.26-62.5µm) Clay (<31.25µm); \* as defined in Table x

## 5 Licence Conditions

### 5.1 General conditions

#### 5.1.1 Acceptance of terms and conditions

The Licence Holder must notify the MMO of their acceptance of the terms and conditions of this Licence. This notice must be received by the MMO no less than 5 working days before Licensed Activity/ies is/are due to start under this Licence.

#### 5.1.2 Notification of commencement

The Licence Holder must notify the MMO **prior to** the commencement of any Licensed Activity. This notice must be received by the MMO no less than 5 working days before the commencement of that Licensed Activity.

***This Licence is only valid once acceptance of the Licence Terms and Conditions AND notification of commencement are received by the MMO. If a Licensable Activity is carried out without authority of a valid licence, enforcement action may be taken.***

#### 5.1.3 Licence returns

The Licence Holder must ensure that all Licence Returns required by these conditions are complied with. A summary of these requirements are at Annex 1.

#### **5.1.4 Deemed knowledge**

The Licence Holder states by acceptance of the Terms and Conditions of this Licence that they act as the Company's representative and that the Company on whose behalf they act has knowledge of the Licence and all associated Terms and Conditions.

#### **5.1.5 Licence conditions binding other parties**

Where provisions under s.71(5) of the 2009 Act apply, all conditions attached to this Licence apply to any person who for the time being owns, occupies or enjoys any use of the Licensed Activity for which this licence has been granted.

#### **5.1.6 Agents / contractors / sub-contractors**

The Licence Holder must notify the MMO in writing of any agents, contractors or sub-contractors that will be carrying out any Licensed Activity listed in Section 4 on behalf of the Licence Holder. Such notification must be received by the MMO no less than 5 working days before the commencement of the Licensed Activity.

The Licence Holder must ensure that a copy of this licence and any subsequent revisions or amendments has been provided to, read and understood by any agents, contractors or sub-contractors that will be carrying out any Licensed Activity listed in Section 4 on behalf of the Licence Holder.

#### **5.1.7 Vessels**

The Licence Holder must ensure that the MMO are provided with notification of any vessel being used to undertake any Licensed Activity listed in Section 4. Such notification must be received by the MMO no less than 24 hours before the commencement of the Licensed Activity. Notification must include vessel type, vessel IMO number, vessel owner or operating company.

The Licence Holder must ensure that a copy of this licence and any subsequent revisions or amendments has been read and understood by the Masters of any vessel being used to undertake any Licensed Activity listed in Section 4, and that a copy of this Licence is held on board any such vessel.

#### **5.1.8 Changes to the licence**

Should the Licence Holder become aware that any of the information on which the granting of this licence was based has changed or is likely to change, they must notify the MMO at the earliest opportunity. Failure to do so may render this Licence invalid and may lead to enforcement action.

***NB There will be the option to include sector specific general conditions (e.g. for aggregates or offshore wind)***

## 5.2 Project Wide Conditions

### General

PW1	Methods statement to be approved prior to works commencing
PW2	Notice to mariners
PW3	.....
PW4	.....

### Piling Conditions

PW5	<p>No development shall be commenced until a Piling Method Statement has been submitted to and agreed in writing by the Marine Management Organisation [substitute LPA for MMO when in Requirements schedule], following consultation with the Environment Agency and Natural England. The Piling Method Statement shall include the following measures:-</p> <ul style="list-style-type: none"><li>• Utilisation of pile pads;</li><li>• Utilisation of pile shrouds;</li><li>• Specification of piles to be used;</li><li>• Soft-start procedures to be followed;</li><li>• Marine mammal observation;</li><li>• Implementation of the Active Monitoring Scheme.</li></ul> <p>Percussive piling shall thereafter proceed only in strict accordance with the agreed Piling Method Statement.</p>
PW6	<p>No development shall be commenced until an Active Monitoring Scheme has been submitted to and agreed in writing by the Marine Management Organisation. The Scheme shall include the following details:-</p> <ul style="list-style-type: none"><li>• Location of Active Monitoring Buoy(s) and depth and design of sensors;</li><li>• Full details of the frequency of measurement of temperature and dissolved oxygen in order to ascertain compliance with condition 9;</li><li>• 24 hours a day, 7 days a week monitoring of noise in order to ascertain compliance with condition 9;</li><li>• Full details of when monitoring will commence and cease, which will include a 2 week period of pre and post construction monitoring in order to establish baseline conditions and the return to baseline conditions once construction activity has</li></ul>

	<p>finished;</p> <ul style="list-style-type: none"> <li>• A log of the number and approximate location of piling rigs which are in operation on any given day;</li> <li>• Full details of how the monitored information will be accessed by or communicated to the site contractor and the Marine Management Organisation where necessary.</li> </ul> <p>The Monitoring Scheme shall thereafter be implemented in accordance with the timetable approved as part of the scheme.</p>
PW7	<p>No percussive piling shall commence until a Cold Weather Construction Restriction Strategy for the months of February and March is agreed in writing with the Marine Management Organisation in consultation with Natural England.</p> <p>The strategy shall include the following elements/procedures:-No percussive piling (other than to finish driving any pile that is in the process of being driven at the point the cold weather restriction comes into force ) shall take place following seven consecutive days of zero or sub zero temperatures (where the temperature does not exceed 0°C for more than 6 hours in any day or any other pre-agreed formula to define short periods of thaw);</p> <p>Three temperature monitoring points shall be agreed within the Humber Estuary such as Hull, Grimsby, Spurn or Saltend;</p> <p>Full details of how the monitored information will be accessed by or communicated to the site contractor and the Marine Management Organisation where necessary.</p> <p>The restrictions will be reviewed as follows:</p> <ol style="list-style-type: none"> <li>I. After 24 hours of above-freezing temperatures, the restrictions will be lifted on a "probationary basis", provided that the weather forecast (met office forecast for Hull Location: 53.749, -0.347) indicates that freezing conditions will not return within five days. If this weather forecast turned out to be wrong and freezing conditions did return, then there would have to be an immediate suspension of activity again;</li> <li>II. After five clear days of above-freezing temperatures the restrictions will be lifted entirely and the "clock reset to zero".</li> </ol> <p>The Monitoring Scheme shall thereafter be implemented in accordance with the timetable approved as part of the scheme.</p>
PW8	<p>No percussive piling of piles shall take place between 7<sup>th</sup> April and 1<sup>st</sup> June inclusive in any one calendar year.</p>
PW9	<p>Percussive piling of piles shall be restricted in the following way:-</p>

	<p>1. From 2<sup>nd</sup> June to 22<sup>nd</sup> July inclusive in any one calendar year, the maximum amount of percussive piling permitted within each four-week period shall be limited to:-</p> <ul style="list-style-type: none"> <li>a. 101 hours where a single rig is in operation; or</li> <li>b. A combined total of 168 hours where two or more rigs are in operation.</li> </ul> <p>2. From 23<sup>rd</sup> July to 10<sup>th</sup> September inclusive in any one calendar year, the maximum amount of percussive piling permitted each week shall be limited to:-</p> <ul style="list-style-type: none"> <li>a. 25 hours where a single rig is in operation; or</li> <li>b. A combined total of 42 hours where two or more rigs are in operation.</li> </ul> <p>3. From 11<sup>th</sup> September to 31<sup>st</sup> October inclusive in any one calendar year, the maximum amount of percussive piling permitted within each four-week period shall be limited to:-</p> <ul style="list-style-type: none"> <li>a. 134 hours where a single rig is in operation; or</li> <li>b. A combined total of 224 hours where two or more rigs are in operation.</li> </ul> <p>4. From 1<sup>st</sup> November to 6<sup>th</sup> April inclusive in consecutive calendar years, the maximum amount of percussive piling permitted within each eight-week period shall be limited to:-</p> <ul style="list-style-type: none"> <li>a. 336 hours where a single rig is in operation; or</li> <li>b. A combined total of 560 hours where two or more rigs are in operation.</li> </ul> <p>The measurement of each work block shall begin at the start of the first percussive piling strike, roll throughout the piling day, then cease at the end of the last piling strike. Measurement will begin again at the start of the next percussive piling day, on the start of the first percussive piling strike. This process will be repeated.</p>
PW10	No piling shall take place between the 22.00hours on a Saturday and 06.00hours on a Monday.
PW11	No piling shall take place between 22.00hours and 06.00hours.



PW12	The maximum diameter of marine piles shall be 2.1m.
PW13	No piling shall take place during periods when the data from the Active Monitoring Buoy(s) shows temperature to be above 21.5 degrees Celsius and/or dissolved oxygen to be below 5mg/l.
PW14	The Licence Holder must ensure that soft-start procedures are used to ensure incremental increase in pile power over a set time period until full operational power is achieved. The soft-start duration should be a period of not less than 20 minutes. Should piling cease for a period greater than 10 minutes, then the soft start procedure must be repeated.

### **Dredge and disposal Conditions**

PW15	Dredge and Disposal Strategy to be approved prior to works commencing
PW16	
PW17	
PW18	
PW19	

### **Activity Specific Conditions**

#### **Activity 1: Construction of quay**

A1-1	
A1-2	

#### **Activity 2: Construction and removal of temporary dolphins**

A2-1	
A2-2	


**Activity 3:**

**Activity 4:**

**Activity 5:**

**Activity 6:**

**Activity 7:**

**Activity 8:**

**Activity 9:**

**Activity 10:**

**Activity 11:**

**Activity 12:**

**Activity 13:**

**Activity 14:**

**Activity 15:**

**Activity 16:**

**Activity 17:**

**Activity 18:**

**Activity 19:**

**Activity 20:**

**Activity 21:**

**Activity 22:**

**ANNEX 1 Licence Returns**

Return No.	Return Description	Return Deadline
1	Licence Holder to accept terms and conditions of Licence.	No less than 5 working days before Licensed Activity/ies is/are due to start.
2	Licence Holder to notify MMO of proposed commencement of Licensed Activity/ies.	No less than 5 working days before Licensed Activity/ies is/are due to start.
3	Notification of agents, contractors, etc	No less than 5 working days before Licensed Activity/ies is/are due to start.
4	Notification of vessels used	No less than 24 hours before Licensed Activity/ies is/are due to start.
5		
6		
7		

## **6 Compliance and Enforcement**

Any breach of the Licence Terms and Conditions may lead to enforcement action being taken. This can include variation, revocation or suspension of the Licence, the issuing of an enforcement notice, or criminal proceedings which may carry a maximum penalty of an unlimited fine and / or a term of imprisonment of up to two years.

Your attention is drawn to Part 4 of the Marine and Coastal Access Act 2009, in particular sections 65, 85 and 89 which set out offences and also to sections 86 and 109 which concern defences. The MMO's Compliance and Enforcement Strategy can be found on our website ([http://marinemanagement.org.uk/about/documents/compliance\\_enforcement.pdf](http://marinemanagement.org.uk/about/documents/compliance_enforcement.pdf)).

**Table x: Locations of Activities**

<b>South Bank Works</b>	<b>Lat (deg decimal min) WGS84</b>	<b>Long (deg decimal min) WGS84</b>
Quay	N53 39.46	W00 13.68
	N53 39.54	W00 13.45
	N53 38.95	W00 12.67
	N53 38.88	W00 12.75
	N53 38.98	W00 13.18
	and then along the seaward face of the flood defence wall up to the first point in the list	
Temporary dolphins		
Berthing Pocket	N53 39.55	W00 13.48
	N53 39.57	W00 13.43
	N53 38.94	W00 12.60
	N53 38.92	W00 12.64
Pumping Station		
Compensation Site		
Approach Channel	N53 39.57	W00 13.43
	N53 39.61	W00 13.30
	N53 39.40	W00 12.90
	N53 39.03	W00 12.41
	N53 38.94	W00 12.60
Turning Area	N53 39.40	W00 12.90
	N53 39.41	W00 12.53
	N53 39.11	W00 12.26
	N53 39.03	W00 12.41
Eon Outfall		
Centrica Outfall		
South Bank Channel at Pumping Station		
North Bank Channel at Cherry Cobb sands		
North Killingholme Haven Pitts		
HU080	N53 36.95	W00 03.47
	N53 36.55	E00 00.42
	N53 36.30	W00 00.62

	N53 36.47	W00 02.32
HU082	N53 37.47	W00 02.27
	N53 37.25	W00 00.80
	N53 36.97	W00 00.81
	N53 37.12	W00 02.29

**Annex 3 – Table detailing the MMO’s the updated position on comments made on the environmental statement in the MMO’s relevant representation**



## AMEP

### MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
<b>7. Environmental Statement: Volume 1 Able Marine Energy Park</b>			
<b>Chapter 7, Geology, Hydrology and Ground Conditions</b>			
7.1-7.3		Informative paragraphs, no action required.	<u>29-5-12</u> We would like a response to 7.1. Agree no response required for 7.2 and 7.3
7.4	The dredging of the reclamation area, anchorage trench, berthing pocket, approach channel and turning area have been considered in Chapter 7. Dredging requirements for the excavation works at the pumping station, the south back channel, of Stone Creek (mentioned in previous draft chapters of the ES but not the current one) and of plough dredging have not been included. In addition, it is not clear if the over-dredge of the berthing pocket has been accounted for in the values provided.	<p><u>5-4-12</u></p> <p>The cofferdam for the construction of the pumping station will incorporate the existing flood defence wall which will be removed to allow outfall pipes to be laid; the wall will then be reinstated. The invert of the outfall pipes will be at +3.9mCD. A channel approximately *m wide will be excavated through the intertidal area at a slope of 1:500 for approximately *m.</p> <p>Plough dredging is mentioned in Annex 7.6 as possible mitigation for the Centrica outfall. Work undertaken post submission is presented in HRW Technical Note DHR 4808-1 shows only the E-ON outfall is likely to be smothered and will need to be diverted. The frequency of plough dredging at the Centrica outfall is difficult to estimate; it should be subject to an agreed monitoring programme.</p>	<p><u>29-5-12</u></p> <p>I understand HR Wallingfords work will provide the dredge and disposal estimates required for the deemed marine licence. As such I provide no further comment on this until that report is received.</p> <p>The level of detail required is contained in our relevant representations.</p> <p>I understand you are not now seeking permission to dredge Stone Creek.</p>





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### MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
		<p>The impact of the scheme on sedimentation in Stone Creek is assessed in Annex 32.4, Section 4.5 of the ES. Siltation is not expected to change as a consequence of the scheme. Nevertheless, an effect cannot be excluded due to the uncertainty attached to hydrodynamic modelling. Accordingly paragraph 4.5.5 recommends monitoring of sediment levels. Routine maintenance dredging is currently undertaken by the EA with (we understand) contributions from landowners and we would expect this to continue. It is considered that there is only a slight risk that the frequency of dredging operations increases due to the scheme. Any possible increase in maintenance dredging would be miniscule compared to the annual maintenance dredging on the Humber and is not be considered to give rise to a likely significant effect that needs specific assessment.</p> <p>Dredging volumes are being reviewed against more recent site investigation data. EA to advise on the procedure</p>	
7.5	These additional dredging and disposal operations are licensable activities under the 2009 Act. The MMO would prefer for these	<p><u>5-4-12</u> Excavation within the cofferdam will be undertaken in dry conditions when there</p>	<p><u>29-5-12</u> See comments for 7.4</p>



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### MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	activities to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the Applicant will need to undertake an impact assessment of these activities to do so.	<p>is no hydraulic connection with the estuary. Material will be disposed of on the land.</p> <p>The requirement to excavate a channel for the pumping station outfall is noted in Annex 8.3, Section 4. The potential requirement for maintenance dredging of the channel is also highlighted. It was agreed with Natural England that a similar feature that would be created in relation to a proposed pumping station for Able Logistics Park (NLC Planning Application Reference PA/2009/0600) simply represented a functional change to the habitat. It is estimated that the initial channel will be *m wide, *m long and have an average depth of *m. This represents an initial dredge of *m<sup>3</sup>. This will make no material difference to the impact assessment undertaken for capital dredging works.</p> <p>Increased dredging of Stone Creek is not anticipated (see above).</p> <p>Plough dredging causes sediment to be suspended in the lower reaches of the water body. Works would be undertaken on an ebb tide so that material resettles within the AMEP berthing pocket and</p>	



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
		approach channel and removed during maintenance dredging works.	
7.6	The MMO requests that the Applicant provides details of the location and quantity of material to be capital and maintenance dredged and disposed of the sea from these additional locations. The impact assessment in Chapter 7 and the Dredging Strategy at Annex 7.6 need to be updated to include this information.	<p><u>5-4-12</u>  <i>Capital Dredging</i>  Cofferdam: Approximately 2 000m<sup>3</sup> of material will be excavated from the sea wall and incorporated into the development as fill.  South Bank Channel: Approximately *m<sup>3</sup> will be dredged to create a channel through the intertidal areas.  Stone Creek: None  Plough Dredging: None  <i>Maintenance Dredging</i>  Cofferdam: None.  South Bank Channel: Allow complete re-dredge every year.  Stone Creek: None  Plough Dredging: Nominal tbc</p>	<p><u>29-5-12</u>  See comments for 7.4</p>
7.7-7.13		Informative only	<p><u>29-5-12</u>  Agree that 7.7-7.13 are informative. However, it should be noted that full consideration of Ospar requirements will need to be undertaken again once the final dredge and disposal qualities are provided. Further sampling and analysis of areas not previously covered may be</p>



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
			required and consideration of the Waste Framework Directive and the Waste hierarchy is required (as per my email of 22 May 2012).
7.14	The Applicant has provided further information to the MMO on this in the form of a Green Port Hull Cumulative Impacts Screening Assessment. However, this assessment has been made presuming that Green Port Hull is the same as Quay 2005. Whilst the Green Port Hull project does use the existing licences granted for Quay 2005, there is additional work including infilling of part of Queen Alexandra Dock and additional dredging. Therefore the cumulative assessment screening needs to be updated allowing for this work, particularly as most cumulative impacts surround the dredging and changes to suspended sediment and coastal processes.	<u>5-4-12</u> Estuary wide modelling to be reviewed	<u>29-5-12</u> I understand JBA and ERM are undertaken additional work on the in-combination assessment. As such I provide no further comment on this until that report is received.
7.17	To conclude, based on the figures presented in the ES, 954,350m3 of non-erodible capital material is suitable for disposal to HU082 and 981,150m3 of erodible capital material is suitable for disposal to HU080. The deemed marine licence at Schedule 8 must be updated to reflect this latest advice.	<u>5-4-12</u> Noted, BDB to consider appropriate drafting of the DML	<u>29-5-12</u> This will need to be updated following the findings of HR Wallingfords work. As such I provide no further comment on this until that report is received.
7.18-7.20		Informative	<u>29-5-12</u> Paragraphs 7.19 and 7.20 are not informative and require an action



## AMEP

### MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
			on Ables part. See comments for 7.4.
7.21	The impact assessment in Chapter 7, the Dredging Strategy at Annex 7.6 and the deemed marine licence need to be updated to reflect the additional dredging requirements from the south bank channel, Stone Creek (if to be undertaken) and the plough dredging around the E.ON and Centrica outfalls.	<u>5-4-12</u> Noted. The strategy will be amended and re-issued.	<u>29-5-12</u> Once the HR Wallingford report is available we will need to ensure an adequate impact assessment of the dredge disposal activities has been undertaken.  Following this, the deemed marine licence will need to be updated.  I am content for the updating of the Dredging Strategy to be a condition of the deemed marine licence.
7.22-7.24		Informative	<u>29-5-12</u> 7.22 and 7.24 require conditions to be drafted to include in the deemed marine licence.
<b>Annex 7.6 Dredging Strategy</b>			
7.25	The dredging plan produced by Westminster Dredging has not been amended to reflect the correct disposal sites mentioned in the rest of the document and in the DCO Application.	<u>5-4-12</u> The deposit locations are consistent with those reported elsewhere in the ES. The document will be amended to reflect the current advice from MMO.	<u>29-5-12</u> I am content for the updating of the Dredging Strategy to be a condition of the deemed marine licence.
7.26	The MMO requires that this Dredging Strategy be updated to reflect previous changes and the comments in these written representations.	<u>5-4-12</u> Noted. Strategy to be revised	<u>29-5-12</u> see comments for 7.25



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
7.27	The Dredging Strategy must also be updated to include all dredging and disposal activities to be undertaken as part of this project including the turning area, approach channel, berthing pocket, south bank channel, plough dredging, dredging for land reclamation, excavation at the pumping station and maintenance of Stone Creek, as well as any other dredge or disposal activities to take place which have not been mentioned in the DCO Application documents.	<u>5-4-12</u> Noted. Strategy to be revised.	<u>29-5-12</u> see comments for 7.25
7.28	The Dredging Strategy must be updated and be approved in writing by the MMO prior to any dredging operations commencing. This must be conditioned in the deemed marine licence.	<u>5-4-12</u> Noted. Strategy to be revised.	<u>29-5-12</u> see comments for 7.25
<b>Chapter 8 Hydrodynamic and Sedimentary Regime</b>			
7.29-7.34		Informative	<u>29-5-12</u> Agree 7.29 is information only, however 7.30-7.34 require further clarification. Information required to satisfy 7.30-7.32 should be provided in the HR Wallingford and JBA reports. The information requested in 7.34 should be provided.
7.35	It would appear that the drainage channels of the currently terrestrial side of the compensation site are not represented in the model. Please comment on the significance of this.	<u>29-5-12</u> The drainage channels are not part of the tidal system.	<u>8-6-12</u> Accepted. No further action required.
7.39	The increase in suspended material at the intake	<u>5-4-12</u>	<u>29-5-12</u>



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MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	valves of the E.ON and Centrica power stations is also of some concern. Real-time monitoring of suspended sediment concentration is proposed near the power station intakes by the Applicant. A monitoring and mitigation strategy to assess, and where required mitigate, these changes must be agreed in writing with the MMO prior to any works commencing. The MMO requires a condition to this effect on the deemed marine licence (see paragraphs 5.16 to 5.18 for further discussion on conditions for the deemed marine licence). Consultation with the power station operators (Centrica and E.ON) will be required in designing an effective monitoring programme with suitable management trigger thresholds.	Both parties are being consulted	It is likely that any mitigation or monitoring agreed with E.ON and or Centrica would need to be conditioned in the deemed marine licence. As such, I request that you keep the MMO informed of the progress of these discussions.
7.40	Construction of a new outfall structure is discussed as potential mitigation for the potential increase in suspended material at the intake valves of the power stations. The Applicant will require a licence under the 2009 Act for construction of a new outfall. The MMO would prefer for this to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any assessment of this activity in the ES which would be required for the licence to be deemed within the DCO.	<u>5-4-12</u> Annex 9.6 of the ES assesses the temperature change in the water column above ambient. The temperature changes are too small to have an impact on any receptors and that finding is reported in paragraphs 9.8.32-9.8.34 of the ES.	<u>29-5-12</u> Adequate assessment of the impact of moving the outfalls does not appear to be made in Annex 9.6 of the ES. The Annex concludes (page 3) by saying that "the horizontal extent of the [Centrica discharge] plume for a particular excess temperature at any time is <i>likely to be</i> no greater than <i>about</i> twice that shown in the Technical Note. Similarly, <i>it is considered likely</i> that the peak surface excess temperature near the E.ON intake <i>will probably be</i>



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
			<p>no greater than <i>about twice</i> that shown in this Technical Note." <i>This opinion is unsupported by additional modelling</i> at the present time and <i>should be confirmed by additional modelling</i> if the option of moving the Centrica outfall is to be pursued further.</p> <p>We also require clarification on whether one or both of the outfalls will be moved such that a proper assessment of the works can be undertaken.</p> <p>Has any consideration been given to the new Killingholme Power Station being proposed by CGen?</p>
7.41-7.43		Informative	<p><u>29-5-12</u></p> <p>A condition relating to the requirement for monitoring plans should be drafted for inclusion on the deemed marine licence. We will provide further comments on this in due course.</p>
<b>Chapter 10 Aquatic Ecology</b>			
7.44	With regards to table 10.13, the distance at which injuries, including Temporary Threshold	<u>5-4-12</u> ERM to comment	<p><u>29-5-12</u></p> <p>I provide no further comment on</p>





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MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	Shift, could occur is more useful than the 'accumulation of energy' distance. Potentially, a marine mammal may only have to be within a certain distance of the piling once to have some auditory damage such as a Temporary Threshold Shift in their hearing.		this until the ERM comments are received.
7.45	Paragraph 10.6.46 states that " <i>in a worst case scenario, harbour porpoises may display behavioural responses within a distance of 1.7km from the piling due to the maximum rms noise during a pulse</i> ". It then goes on to say that " <i>they would only suffer potential auditory damage if they regularly approach within approximately 25.0 to 38.6km of the piling</i> ". Previous drafts of the ES stated " <i>in a worst case scenario, harbour porpoises may display behavioural responses over a wide area (40.4 km from the piling)</i> ". The Applicant should clarify the position and ensure that the impact has been correctly assessed citing relevant studies where appropriate.	<u>5-4-12</u> ERM to comment	<u>29-5-12</u> I provide no further comment on this until the ERM comments are received.
7.46	The impact of piling on migratory fish populations, including Atlantic salmon and lamprey species, during the construction period is of some concern. The impacts of piling on these species will need to be mitigated. As such, the MMO requests that the Applicant submits a piling mitigation strategy. This must be developed in consultation with other relevant bodies, in particular the Environment Agency, and be	<u>5-3-12</u> Discussions on-going with EA.	<u>15-6-12</u> The MMO has received a copy of the latest proposal for mitigation that Able have submitted to the EA on this matter. The MMO, EA and NE have worked together to agree a mitigation package for the impacts of piling. This has been communicated to you in a



## AMEP

### MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	agreed in writing with the MMO prior to works commencing. The mitigation must be detailed within the deemed marine licence for monitoring and enforcement purposes.		letter dated 19 June 2012 from the Environment Agency.
7.47	The construction of the Project could cause a barrier to the migration of lamprey species along the intertidal zone as the area is reclaimed. The impact has been mentioned in Table 10.10 and in paragraphs 10.6.59 and 10.6.62, stating that the lamprey could move through other parts of the estuary. However, the MMO does not consider that this is sufficient justification for the conclusion of no significant effect.	<p><u>5-4-12</u></p> <p>What evidence exists for the premise that lamprey migrate preferentially along the intertidal zone?</p> <p>Able procured a report from the Institute of Estuarine and Coastal Studies on Lamprey and it is included in the ES at Annex 10.2. Paragraph 70 records that intertidal areas are not essential habitat for Lamprey.</p>	<p><u>15-6-12</u></p> <p>We have reviewed Annex 10.2 in more detail and agree with the assessment made. We therefore request no further information on this but mitigation will be required.</p> <p>The MMO has received a copy of the latest proposal for mitigation that Able have submitted to the EA on this matter. The MMO, EA and NE have worked together to agree a mitigation package for the impacts of piling. This has been communicated to you in a letter dated 19 June 2012 from the Environment Agency.</p>
7.48	Paragraph 10.8.6 states that " <i>a significant impact to local resident fish populations beyond those that would succumb to the loss of subtidal habitat is possible</i> ". The only point at which any impact is mentioned is in paragraph 10.6.56. However other than to state there may be a locally significant effect, the impact is never described or quantified. Whilst the paragraph	<p><u>5-4-12</u></p> <p>ERM to respond</p>	<p><u>15-6-12</u></p> <p>The MMO has undertaken a thorough review of the fisheries information, including commercial fisheries as well as migratory populations and require mitigation for the impacts of noise from piling activities.</p>



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	goes on to state that the conservation designations of the Humber Estuary SAC may not be affected, this is not to say the fish populations would not be affected either. A full description of the potential impact on resident fish populations should be provided.		The MMO has received a copy of the latest proposal for mitigation that Able have submitted to the EA on this matter. The MMO, EA and NE have worked together to agree a mitigation package for the impacts of piling. This has been communicated to you in a letter dated 19 June 2012 from the Environment Agency.
7.49	In general, many statements of impact are made but are not evidenced or backed up by appropriate references (for example, paragraphs 10.6.44, 10.6.47, 10.6.49 and 10.6.56). While there are references within paragraph 10.6 as a whole, all statements of impact need to be evidenced. Worked examples of how significance was calculated would assist interpretation.	<u>5-4-12</u> ERM to respond	<u>29-5-12</u> I provide no further comment on this until the ERM comments are received.
7.50	An auditable methodology of significance assessment is not provided in this Chapter; there are only statements as to whether an impact is significant, in many cases, not backed up by any references. The Applicant needs to provide these methodologies for consideration. Impact tables or matrices of significance, as provided in Chapter 12, would also aid interpretation.	<u>5-4-12</u> ERM to respond	<u>29-5-12</u> I provide no further comment on this until the ERM comments are received.
<b>Chapter 14 Navigation</b>			
7.51-		Informative, noted.	<u>29-5-12</u>



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MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
7.53			Conditions relating to 7.51-7.53 should be drafted for inclusion on the deemed marine licence. We will provide further comments on this in due course.
7.54	The Applicant will require a licence under the 2009 Act for the construction, deposit and/or removal of any permanent or temporary pilings or mooring dolphins. The MMO would prefer for this to be deemed within the DCO in order for the project to be considered as a whole. However, the MMO has not found any environmental impact assessment of this activity in the Environmental Statement which would be required for the licence to be deemed within the DCO as discussed at paragraphs 4.9 to 4.11.	<u>5-4-12</u> The impact of installing temporary dolphins is covered by the piling assessment.	<u>15-6-12</u> We request that a report or note detailing or sign-posting where all licensable activities have been considered is produced. We will then consider all licensable activities together.
<b>8. Environmental Statement: Volume 2 Compensation Site</b>			
Chapter 28 Description of Development			
8.1-8.2		Informative	<u>29-5-12</u> Agree.
8.3	Erosion protection may be required, for example concrete blocks or rockfill. The Applicant may require a licence under the 2009 Act for this activity if the activity is taking place below mean high water springs. The MMO would prefer for this to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any environmental impact assessment of this activity in the Environmental Statement	<u>5-4-12</u> Rock armour is proposed at the northern and southern revetments. The rock armour will be imported by road and placed by land based plant. What likely significant effect is anticipated and has not been assessed in the ES?	<u>15-6-12</u> We request that a report or note detailing or sign-posting where all licensable activities have been considered is produced. We will then consider all licensable activities together.



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

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No	MMO	Able UK	MMO comments
	which would be required for the licence to be deemed within the DCO.		
8.4	It is not clear whether the final resulting areas of expected salt marsh, mud flat and subtidal habitat will compensate for lost habitat at the main site in a “like for like” fashion. This needs to be clarified by the Applicant.	<u>5-4-12</u> Annex 1 of the EC Directive 92/43/EEC does not identify subtidal habitat per se, as a specific habitat type. Three habitat types in the marine environment are affected by the works: mudflat (1140), estuary (1130) and annuals colonising mud and sand (1310). These specific habitat types are being compensated on a ‘like for like’ basis.	<u>29-5-12</u> I understand you are producing a table of habitat loss and habitat creation. We request a copy of this note and will provide further comments on this point once that has been received.
8.5	The anticipated areas of mud flat and salt marsh (after five years) alongside the areas of mud flat and salt marsh lost as a result of the development have not been provided. This is required to assess the effectiveness of the proposed Compensation Site (CS).	<u>5-4-12</u> Black and Veatch provided professional opinion to Natural England before the application was submitted. They are now undertaking the detailed design.	<u>29-5-12</u> The MMO requests a copy of this report. As such I provide no further comment on this until that report is received.
8.6		Informative	<u>29-5-12</u> A condition relating to the requirement for monitoring plans should be drafted for inclusion on the deemed marine licence. We will provide further comments on this in due course.
<b>Chapter 32 Hydrodynamic and Sedimentary Regime</b>			
8.7	Annex 32.2, paragraph 3.1: The model performance could be tested using the adjacent	<u>29-5-12</u> Attempting a test using Paull Holme	<u>8-6-12</u> Accepted



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	coastal realignment (i.e. Paull Holme Strays). As the forcing conditions are the same, such a test would give an indication of the reliability of the model as compared to the current situation in which there are no calibration data for the area of interest.	Strays as suggested would add another set of uncertainties without necessarily demonstrating that the Cherry Cobb Sands Model was reliable. It is important to note that the TufLOW modelling software used is standard software routinely used by the Environment Agency for modelling inundation of tidal and fluvial floodplains.	
8.8	Annex 32.2, paragraph 3.3.6: The suggestion that the large differences between the two models is due to model resolution (and a more uneven surface in the higher resolution model) appears speculative. Evidence for this suggestion and reasoning as to why field measurements were not taken to validate the model (in Cherry Cobb Creek, for example) should be provided.	<u>29-5-12</u> The detailed model has a 10m grid compared to the 100m grid used in the model of the whole Humber, hence there is much greater bathymetry detail in the detailed model than in the whole Humber model. The detailed model was nested within the Humber model and boundary conditions from the Humber model used to drive the detailed model. The whole Humber model was validated against levels and velocities within the estuary and the detailed model verified against output from the Humber model at the same grid location. Unfortunately we do not know the bed levels in the Humber model at the locations chosen, but because of differing grid resolution there are likely to be some differences in bed level in the two models at the point where comparisons are made.	<u>8-6-12</u> Validation of one model using another model always adds uncertainty to conclusions. Measurements in intertidal areas can be difficult but are achievable (especially on the lower intertidal area where water depths are greater at high water) and would provide greater confidence in the conclusions of the modelling study. It needs to be demonstrated that there are no gross errors in the model thereby making its predictions unreliable. We request that you provide some figures for the range of velocities predicted in the intertidal areas by the model, and a brief assessment of whether these velocities are realistic.



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

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No	MMO	Able UK	MMO comments
		Field measurements would have been desirable, but are difficult in intertidal conditions such as on top of Foulholme Sand and in Cherry Cobb Sands Creek. The operation of this particular model in the area of interest is almost totally determined by the bathymetry, so the potential increase in reliability and confidence in the model results was not considered sufficient to justify the investment.	Ideally the assessment should make reference to measurement of velocity taken somewhere comparable within the estuary. Making this assessment would give some reassurance that the model predictions are valid, and need not be an onerous task.
8.9	Annex 32.2, paragraph 3.3.7: A potential issue with the wetting and drying of surfaces in the model is cited for spikes at points 1 and 2. However, if this were the case one might reasonably expect to observe the same behaviour at all intertidal sites. However, this is not the case. Further discussion and justification is required to identify the likely causes and whether or not the model performance is acceptable.	<u>29-5-12</u> The cause of some spikes is certainly due to wetting and drying process. This can also be seen on tide levels and flow direction plots (i.e. Figure 6 and 7 respectively). TufLOW manual warns that "... high velocities can briefly occur during the wetting process, and are not particularly representative of the peak velocity".  Spikes at sites 1 and 2 are linked to wetting and drying. Spikes after HW time at sites 3, 5 and 7 are thought to be due to some instability in the model.	<u>8-6-12</u> Accepted. No further action required.
8.10	Annex 32.2, paragraph 3.3.10: The model results/performance should be compared statistically using an objective approach. On a number of the plots in Figure 7, the velocity,	<u>29-5-12</u> It is important to remember that we are comparing one model against another, either/ both of which could be in error.	<u>8-6-12</u> This uncertainty adds weight to the comments in point 8.8 above.



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No	MMO	Able UK	MMO comments
	magnitude and phase are incorrect. For example, sites 2, 5 and 7 show significant magnitude or phase deviations between the two models.	<p>Such an 'objective approach' may not help in the assessment of model reliability. Major differences at sites are considered in the preceding paragraphs. Hence in this instance we considered statistical methods were not helpful.</p> <p>We agree that there are differences at the cited points. The specific cause is not known, and which is closer to field conditions is also not known. Important to remember that the detailed model contains a much better representation of bathymetry than the whole Humber model, including a full representation of Cherry Cobb Sands Creek which takes drainage from the landward half of Foulholme Sands. Site 2 is in this part of the sandbank.</p> <p>We concluded that given the difference in model grid the differences were quite small.</p>	We agree that the differences are most likely to arise from differences in the model grids.
8.11	Annex 32.3, paragraph 3.4.5 and 3.4.11: The CS is predicted to give an increase in the maximum average current of 44% from 0.67 m/s to 0.97 m/s between the outlet and Stone Creek. It is stated that there will be increased erosion in this area, but no formal assessment is made to show whether this is correct and, if erosion is to occur, to what levels. As significant deepening is a highly likely impact of the proposed	<p><u>29-5-12</u></p> <p>No assessment of the likelihood of erosion is included in Annex 32.2. This issue is covered in Annex 32.4 (section 4.4) and Annex 32.6 (section 3.3).</p> <p>These annexes do not quantify the deepening that will occur. The detailed modelling of the compensation site</p>	<p><u>8-6-12</u></p> <p>We welcome the extension of the detailed modelling work and will provide further comment on this once that report is received.</p>





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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

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No	MMO	Able UK	MMO comments
	compensation site, it should be quantified in the assessment.	currently underway will be extended to assess the enlargement of Cherry Cob Sands that is likely to occur because of the higher velocities.	
8.12	The MMO understands that further modelling work is being undertaken by the Applicant to predict the development of the realignment site for the first 10 years. The MMO would wish to see the results of this modelling and would need to have sight of any new design for the compensation site, along with a detailed method statement which would need to be agreed prior to works commencing.	<u>5-4-12</u> Noted, the design is currently being undertaken.	<u>29-5-12</u> I provide no further comment on this until the B&V comments are received.
8.13	Annex 32.4: It has been stated that there are no data available for calibration and validation of the model. The Applicant should consider what evidence there is that this model has correctly predicted the effects of a coastal realignment, or how this may be assessed if no evidence readily exists. Although the CS under consideration here does not presently exist, there are other sites in and near the Humber estuary where similar activities have occurred. These sites would make an ideal blind-test of the model – that is the model could be run without calibration/validation and compared afterwards with field data from an established re-alignment site. This would give confidence in the model results. It would be useful to know if the model was used previously with any of the Humber sites and, if so, how well	<u>29-5-12</u> Please see earlier response at point 8.7 on the value of a blind test. This particular model has not been used for previous Humber managed realignment sites. Previous realignment schemes have used MIKE 21 and Delft3D software in 2D mode. Model performance of water levels and inundation extent has been good. Siltation predictions were less reliable, especially at Paull Holme Strays. For this study we have taken advantage of experience at PHS reported in Annex 32.5 and Annex 32.4 (section 4.1) to 'calibrate' accretion and erosion predictions.	<u>8-6-12</u> The difficulty of validating the modelling predictions is acknowledged and accepted, and the use of knowledge gained from Paul Holme Strays is welcomed.



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No	MMO	Able UK	MMO comments
	it performed.		
8.14	Annex 32.4, paragraph 3.5.7: At point 16 there is a considerable change in flow speed. This is likely to scour a deeper channel and result in a slower speed. This model does not assess changes in bed level, which is a limitation. However, one could make predictions of the scour in the channel and use this information to model an anticipated 'equilibrium' channel configuration. At present the model only investigates the initial conditions rather than the hydrodynamic conditions that are likely to persist.	<u>29-5-12</u> We agree and as indicated in 8.12 new modelling work will include reporting on scour in the creek.	<u>8-6-12</u> We welcome the extension of the detailed modelling work and will provide further comment on this once that report is received.
8.15	Annex 32.4, paragraph 4.3: This paragraph is important, but it is only briefly documented and reported. The time-series of bed shear stress, plotted along with the critical deposition and erosion values, would be informative and should be included. Likewise, an explanation of why the increased velocities at point 19 (Figure 14b) result in a reduction (rather than the expected increase) in the annual erosion estimate (Table 12) would also be useful.	<u>29-5-12</u> The time series of bed shear stress will be provided in the report of detailed modelling of the 100ha compensation site currently in progress.	<u>8-6-12</u> We welcome the extension of the detailed modelling work and will provide further comment on this once that report is received.
8.16	Annex 32.4, paragraphs 5.1.2 and 5.1.3: The qualitatively forecast " <i>high erosion levels</i> " in the Cherry Cobb Sands Creek should be quantified (i.e. erosion/accretion estimates) as for other parts of the study area. This should be done upstream and downstream of the breach where accretion and erosion (respectively) are	<u>29-5-12</u> As indicated in 8.12 and 8.14, erosion and accretion estimates for Cherry Cobb Sands Creek will be made as part of the detailed modelling studies underway.	<u>8-6-12</u> We welcome the extension of the detailed modelling work and will provide further comment on this once that report is received.



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	expected.		
<b>Chapter 33 Water Quality and Sediment Quality</b>			
8.17 – 8.18		Informative	<u>29-5-12</u> Agree
8.19	The results from locations TH11 and TH12 are higher than Cefas Action Level 2 for copper, mercury, lead and zinc; however it is unclear whether the methods are comparable to those used to determine the Cefas Action Levels. The MMO requests that details of the analytical methodologies used are provided in order to assess the comparability of this data. If it is not possible to compare the results with MMO criteria, the MMO may require re-sampling and testing using Cefas methods to ensure the direct comparison of TH11 and 12.	<u>5-4-12</u> These trial pit locations lie outside the realignment site.	<u>29-5-12</u> We have been provided with the trial pit location sites and confirm that, since these sites are outside of the realignment site, we have no further comment to make on this.
8.20	TH11 and TH12 also showed higher levels of pyrene and flouranthene than background levels in the Humber. The methods for these analyses also need to be provided to the MMO to determine the suitability of the data for a direct comparison to Cefas Action Levels.	<u>5-4-12</u> These trial pit locations lie outside the realignment site.	<u>29-5-12</u> We have been provided with the trial pit location sites and confirm that, since these sites are outside of the realignment site, we have no further comment to make on this.
8.21	Some sites were also tested for dichlorodiphenyldichloroethylene (DDE) and dieldrin however the limits of detection are several orders of magnitude above Cefas Action Level 1 (0.2 PPM and 0.001 PPM respectively). DDE and dieldrin concentrations have not,	<u>5-4-12</u> A second stage SI has commenced	<u>29-5-12</u> Able have provided the MMO with the methodologies used for the additional site investigation works have the following comments: <ul style="list-style-type: none"> <li>• DDT and it's derivatives will</li> </ul>



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	therefore, been adequately assessed for risk assessment purposes and will require further sampling and analysis.		<p>need to be tested by a laboratory who can achieve an LOD below Cefas action level 1 (for example, the Cefas laboratory);</p> <ul style="list-style-type: none"> <li>• Analysis of TBT and PCBs is also required;</li> <li>• Samples at depths for all contaminants are also required. It may be sensible to wait for the final design of the compensation site to be agreed to ensure that the sampling at depth is appropriate;</li> <li>• The MMO would need to approve any remediation work undertaken.</li> </ul> <p>Full advice was provided to Jenn Dawes of Able UK on 29/05/12.</p>
8.22	The MMO understands that the Applicant is intending to undertake additional site investigation works. The MMO strongly recommend that the MMO are consulted on the scope of these works and the methodologies to be used to ensure that the results can adequately describe the contamination and pollution risk for the marine environment.	<p><u>5-4-12</u> Noted, consultation has commenced.</p>	<p><u>29-5-12</u> see comments for 8.21</p>
8.23	The MMO would require that works are not allowed to commence at the compensation site	<p><u>5-4-12</u> Noted, BDB to consider appropriate</p>	<p><u>29-5-12</u> see comments for 7.25</p>



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

Date: 22-06-2012

No	MMO	Able UK	MMO comments
	until the information requested in paragraphs 8.17 to 8.22 is provided to the MMO and the MMO has agreed in writing that the works should commence. Should the methodologies used be insufficient to be able to assess the risk of pollution to the marine environment, the MMO would require additional sampling and analysis of sediments to be undertaken place prior to works commencing. The MMO would require that this is made a condition of the deemed marine licence.	drafting of the DML	
8.24	Paragraph 33.6.3 states " <i>the sensitivity of the receiving estuarine waters to contaminants is considered to be medium and the magnitude of effect to be medium, resulting in a moderate negative significant effect</i> ". Evidence of this statement has not been provided. Where possible, appropriate mitigation should be proposed and be detailed in the deemed marine licence.	<p><u>29-5-12</u></p> <p>If the second stage SI shows contaminated land is present within the proposed managed realignment site, a mitigation strategy will be proposed in line with the risk assessment of Annex 31.4.</p> <p>We will advise MMO on testing procedures.</p>	<p><u>8-6-12</u></p> <p>We welcome the additional SI work and will provide further comment on the SI work and the mitigation strategy once this information is received. Please see email to Jenn Dawes of Able UK dated 29/05/2012 regarding our position on sampling and analysis requirements, summarised at 8.21</p>
8.25	Paragraph 33.6.7 mentions that a soke dyke will need to be relocated. It is unclear whether this is below mean high water springs, but there is mention that the waters are saline, which implies that it is. Depending on its current and proposed location, this may require a licence under the 2009 Act. Details of the current and proposed location of the soke dyke should be provided to	<p><u>5-4-12</u></p> <p>Plan AME-02016 shows the diverted position of the soke dyke behind the new flood defence. The existing feature is behind the existing defence. Neither the existing nor diverted drain lie within the marine environment.</p>	<p><u>29-5-12</u></p> <p>We are currently still considering this point.</p>



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Date: 22-06-2012

No	MMO	Able UK	MMO comments
	the MMO, as well as a brief intended method statement in order to clarify this point. Should this activity require a licence under the 2009 Act, the MMO would prefer for this to be deemed within the DCO in order for the project to be considered as a whole. However, the MMO has not found any assessment of this activity in the ES which would be required for the licence to be deemed within the DCO.		
<b>Chapter 34 Aquatic Ecology and Nature Conservation</b>			
8.26	Paragraph 34.6.2 states that while there will be damage to the salt marsh due to construction vehicles, but it will recover quickly. There is no evidence or references for this statement and further clarification is required.	<u>5-4-12</u> The paragraph needs to be read in the context of the previous paragraph. There should be no permanent or significant indirect effect on saltmarsh beyond the excavated channel.	<u>29-5-12</u> We are currently still considering this point.
8.27	Previous drafts of this chapter have mentioned that the removal of salt marsh and placement of any protective matting for vehicles tracking across salt marsh will be required during construction. There is no reference to this in the final ES; however, the applicant has agreed that there will be some excavation of the foreshore during construction. Clarification is sought from the Applicant on whether this will form part of the construction methodology. If these activities are due to occur an impact assessment should be made of them in this DCO Application for the project to be considered as a whole.	<u>5-4-12</u> Paragraph 34.6.1 notes that approximately 2ha saltmarsh will be removed to create a drainage channel into the site. This is being compensated for within the realignment site. Vehicles will use bog mats if required but this will not have any additive effect since the machines will operate within the channel that is being created. The bog mats will be recovered on completion of the works.	<u>29-5-12</u> We are currently still considering this point.



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

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No	MMO	Able UK	MMO comments
8.28	The removal of salt marsh and placement of protective matting below mean high water springs are licensable activities under the 2009 Act. Should they be taking place, the MMO would prefer for this to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole. However, the MMO has not found any assessment of this activity in the ES which would be required for the licence to be deemed within the DCO (as discussed in paragraphs 4.9 to 4.11). This would need to include describe the maximum envisaged extent of matting and the impact of the matting on the marine environment. This should also be included in the in-combination and cumulative impacts assessment for salt marsh habitat.	<u>5-4-12</u> The loss of saltmarsh is covered in the ES, is compensated for (refer to Table 11.16 and 11.17). The use of bog mats will not give rise to any likely significant effects.	<u>29-5-12</u> We are currently still considering this point.  We expect losses and gains of saltmarsh to be covered in the note mentioned at 8.4
8.29		Informative	<u>29-5-12</u> A condition relating to the requirement for monitoring plans should be drafted for inclusion on the deemed marine licence. We will provide further comments on this in due course.
Chapter 36 Drainage and Flood Risk			
8.30	Previous drafts of this chapter mentioned possible dredging of Stone Creek if siltation levels rise. Any specific reference to dredging has been removed but there is now mention of a monitoring and maintenance plan which will	<u>5-4-12</u> See response to 7.4	<u>29-5-12</u> See comments for 7.4



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## MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES

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No	MMO	Able UK	MMO comments
	identify mitigation works (see paragraph 7.41).		
8.31	The MMO requests that the Applicant clarifies whether additional dredging is likely to be required. If there is potential for additional dredging, the environmental impacts of this should be assessed in this DCO Application for the project to be considered as a whole.	<p><u>5-4-12</u></p> <p>The impact of the scheme on sedimentation in Stone creek is assessed in Annex 32.4, Section 4.5 of the ES. Siltation is not expected to change as a consequence of the scheme. Nevertheless as an effect cannot be excluded due the uncertainty attached to hydrodynamic modelling. Accordingly paragraph 4.5.5 recommends monitoring of sediment levels. Routine maintenance dredging is currently undertaken by the EA with contributions from landowners and will have to continue. It is considered that there is only a slight risk that the frequency of dredging operations increases due to the scheme. Any possible increase in maintenance dredging would be miniscule compared to the annual maintenance dredging on the Humber and could not be considered to give rise to a likely significant effect.</p>	<p><u>29-5-12</u></p> <p>I understand you are not now seeking permission to dredge Stone Creek.</p>
8.32	Any dredging or disposal would require a licence under the 2009 Act. The MMO would prefer for all licences under the 2009 Act to be deemed within the DCO alongside the other marine licences in order for the project to be considered as a whole.	<p><u>5-4-12</u></p> <p>No dredging is anticipated</p>	<p><u>29-5-12</u></p> <p>I understand you are not now seeking permission to dredge Stone Creek.</p>





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**MMO RELEVANT RESPONSE – DRAFT ABLE RESPONSES**

**Date: 22-06-2012**

<b>No</b>	<b>MMO</b>	<b>Able UK</b>	<b>MMO comments</b>
	However, the MMO has not found any environmental impact assessment of this activity in the ES which would be required for the licence to be deemed within the DCO.		

## **Annex 4 – Additional reports to be submitted by Able UK**

Report No.	Type	Title	Provider	Formal Issue Date	Status
EX 7.7	Explanatory Note	Beneficial Use of Dredge Arisings	Shadbolts	15/06/2012	Not yet received
EX 7.8	Explanatory Note	Impact of Berthing Pocket Construction	Able	22/06/2012	Not yet received
EX 8.5	Explanatory Note	DELWAQ and TELEMAC-3D validation	HRW	18/06/2012	Received 15/06/12
EX 8.6	Explanatory Note	Maintenance Dredge Variability	HRW	18/06/2012	Received 15/06/12
EX 8.7	Supplementary Report	Modelling of Final Quay Design (Supplement to Annex 8.1)	JBA	22/06/2012	Not yet received
EX 8.8	Explanatory Note	Update to Longer Term Morphology Predictions in the Region of the Centrica and E.ON intakes and outfalls	HRW	08/06/2012	Received 15/06/12
EX 8.9	Explanatory Note	Historical Review of Morphological Change North of HIT (2001-2010)	HRW	18/06/2012	Received 18/06/12
EX 8.10	Explanatory Note	Long-Term Morphological Change of Embayment South of Quay	HRW	18/06/2012	Received 18/06/12
EX 8.11	Supplementary Report	Water Framework Directive of Compensation Site	HRW	20/06/2012	Received 15/06/12
EX 8.12	Supplementary Report	Water Framework Directive - Project wide	HRW		Not yet received
EX 10.4	Explanatory Note	Dredging/Disposal on Aquatic Ecology	ERM	15/06/2012	Not yet received
EX 11.14	Supplementary Report	Biotope Report	Able		Received 15/06/12
EX 11.15	Supplementary Report	Mitigation for Lamprey	Able	18/06/2012	Not yet received
EX 11.16	Explanatory Note	Further assessment of Breeding Bird Survey	S. Percival	21/05/2012	Received 15/06/12
EX 11.17	Supplementary Report	Badger Bait-Marking Survey	P. Lewns	29/05/2012	Not required by MMO
EX 11.18	Explanatory Note	Sensitive Months for Birds Using Intertidal	ERM	08/06/2012	Not yet received
EX 11.19	Explanatory Note	AMEP Bat Surveys Supp Note	ERM	25/05/2012	Not required by MMO
EX 11.20	Licence	Draft Great Crested Newts Licence Application - acknowledgement of receipt	AE	06/06/2012	Not required by MMO
EX 11.21	Licence	Draft Badger Licence Application	P. Lewns	15/06/2012	Not required by MMO
EX 11.22	Explanatory Note	Operational Buffer	ERM	08/06/2012	Not yet received
EX 11.23	Explanatory Note	Immediate Habitat Losses within the Designated Site	Able	01/06/2012	Received 15/06/12
EX 11.24	Explanatory Note	Medium and Long Term Losses within the Designated Site	Able	08/06/2012	Not yet received
EX 11.25	Explanatory Note	Impacts of Construction on North Killingholme Haven Pits	ERM	15/06/2012	Not yet received
EX 11.26	Explanatory Note	Pumping Station	ERM	15/06/2012	Not yet received
EX 11.27	Supplementary Report	Killingholme Phase 2 Survey	Just Ecology		Not required by MMO
EX 11.28	Supplementary Report	Great Crested Newt Survey (2006)	Just Ecology		Not required by MMO
EX 11.29	Supplementary Report	Water Vole Survey (2006)	Just Ecology		Not required by MMO
EX 11.30	Supplementary Report	Location of Replacement Ponds for Great Crested Newts	ERM		Not required by MMO
EX 11.31	Supplementary Report	M456 Invertebrate Survey	A. Godfrey		Not required by MMO
EX 13.2	Supplementary Report	Addendum to Flood Risk Assessment	JBA	15/06/2012	Not yet received

EX 14.4	Supplementary Report	Simulation Videos & Stills	Able	15/06/2012	Not yet received
EX 15.3	Supplementary Report	A160 Killingholme Humber Port Access, Stage 1 Road Safety Audit	AECOM		Not required by MMO
EX 15.4	Supplementary Report	A160 Killingholme Humber Port Access, Stage 1 Road Safety Audit Designer's Response	AECOM		Not required by MMO
EX 15.5	Supplementary Report	Additional Junction RSA	JMP	27/06/2012	Not required by MMO
EX 20.3	Supplementary Report	Additional Landscape Masterplan	ERM	15/06/2012	Not yet received
EX 21.1	Explanatory Note	Project Appraisal Framework for Ports	RTP	22/06/2012	Not yet received
EX 31.5	Explanatory Note	Re-use of In-Situ Material at CCS (inc Cherry Cobb Sands Phase 2 Site Investigation)	Able Delta Simons	25/06/2012	Not yet received
EX 35.10	Supplementary Report	Compensation Site Interim Report on Detailed Design	B&V	28/06/2012	Not yet received
EX 35.11	Supplementary Report	Old Little Humber Farm Detailed Design	Thomson	28/06/2012	Not required by MMO
EX 35.12	Explanatory Note	Farmland Disturbance at Cherry Cobb Sands	Able		Received 15/06/12
EX 36.2	Explanatory Note	North Bank Flood Defence Crest Height	B&V	25/05/2012	Not yet received
EX 36.3	Explanatory Note	Residual Flood Risk to Property on North Bank	B&V / Able	25/05/2012	Received 15/06/12
EX 44.1	Supplementary Report	Supplementary In-Combination Assessment	ERM/JBA	22/06/2012	Not yet received

**Annex 5 – Letter from MMO to Able UK dated 29 May 2012**

Email: a [REDACTED]

## BY EMAIL ONLY

29 May 2012

Our ref: DC9172

Dear Richard,

### Able Marine Energy Park – examination timetable

On 2 April 2012, the Marine Management Organisation (MMO) provided comments to the Planning Inspectorate on Able UK's application for development consent for the Able Marine Energy Park, made under the Planning Act 2008.

In response to comments made by the MMO and others, Able UK have undertaken to provide additional information in order to address questions and issues raised. During regular meetings you have confirmed that clarification would be made in a series of additional reports. On 18 May 2012 you provided to the Environment Agency the following list of reports currently in preparation.

<u>Report Title</u>	<u>Provider</u>	<u>Date Due to Able</u>	<u>Formally Issued</u>
Badger Bait-Marking Survey	P. Lewns	22/05/2012	29/05/2012
EX. NOTE: Sensitive Months for Birds Using Intertidal	ERM	24/05/2012	31/05/2012
EX. NOTE: Maintenance Dredge Variability	HRW	25/05/2012	01/06/2012
HR Wallingford Long-Term Morphological Change to N of Quay	HRW	25/05/2012	01/06/2012
HR Wallingford Long-Term Morphological Change to S of Quay	HRW	25/05/2012	01/06/2012
EX. NOTE: Bats	ERM	29/05/2012	05/06/2012
GCN Licence Application	AE	29/05/2012	05/06/2012
EX. NOTE: Operational Buffer	Able	29/05/2012	05/06/2012
EX. NOTE: Site Habitat Loss Tabulation	Able	29/05/2012	05/06/2012
Description of Works within DML	Able	01/06/2012	08/06/2012
EX. NOTE: Quantum of Habitat Compensation	Able	01/06/2012	08/06/2012
Supplement to Annex 8.1	JBA	08/06/2012	15/06/2012
EX. NOTE: Impacts of Construction on NKHP	ERM	12/06/2012	19/06/2012
EX. NOTE: Pumping Station	ERM	12/06/2012	19/06/2012
Additional Landscape Masterplan	ERM	15/06/2012	22/06/2012
Corrigenda to Flood Risk Assessment	JBA	15/06/2012	22/06/2012
EX. NOTE: Beneficial Use of Dredge Arisings	Able	15/06/2012	22/06/2012
EX. NOTE: Dredging/Disposal on Aquatic Ecology & Sub-Tidal Losses	ERM	15/06/2012	22/06/2012
EX. NOTE: Further assessment of Breeding Bird Survey	Able	15/06/2012	22/06/2012
EX. NOTE: Re-use of In-Situ Material at CCS	Able	15/06/2012	22/06/2012
Supplementary In-Combination Assessment	ERM/JBA	15/06/2012	22/06/2012
Biotope Report	Able	Received	
EX. NOTE: Mitigation for Compensation	Able	Received	
EX. NOTE: N Bank Flood Defence Crest Height	B&V	Received	

Whilst the MMO has not requested all of the above named reports, many of them will contain information relevant to the marine area and hence are of relevance to the drafting of the deemed marine licence. As such, we have highlighted in bold the reports the MMO would wish to receive. The MMO has not received copies of the *Biotope Report*, *EX. NOTE: Mitigation for Compensation* or *EX. NOTE: N Bank Flood Defence Crest Height* and requests copies of these reports at your earliest convenience.

We understand that you are also preparing an additional report on the design and suitability of the compensation site at Cherry Cobb Sands, which appears to have been omitted from the list. The MMO requests a copy of this report. The MMO also expect to receive a report on the additional site investigations currently being undertaken at Cherry Cobb Sands, containing information on contamination levels in the sediments at the site. We would be grateful if these reports could be added to the list and if you could confirm when these additional reports are due to be circulated.

According to the draft examination timetable circulated by the Planning Inspectorate on 1 May 2012, written representations are due to be submitted to the Planning Inspectorate on 29 June 2012 with further written representations by 27 July 2012. Given the expected date for the additional reports to be issued (some of which are not scheduled for submission until up to a maximum of six working days before representations are required), and the volume of additional material to be supplied, it is unlikely that the MMO will have had sufficient time to undertake a full review of all documents prior to providing our first written representation to the Planning Inspectorate on 29 June 2012. In our advice on 29 June 2012, we intend to provide only brief comments on those areas where we are reviewing or awaiting additional information. Accordingly, this representation may be of limited value to the Planning Inspectorate for those items. Consequently, we do not expect to be able to provide detailed written advice to the Planning Inspectorate on the contents of these reports, or the issues they relate to, until the second round of written representations due on 27 July 2012. We will, of course, continue to engage with you outside of the formal examination process to address these issues through the Statement of Common Ground and re-drafting of the deemed marine licence, where appropriate.

Should you have any questions arising from this letter, please do not hesitate to contact me.

Yours sincerely,



**Anna Gerring**  
**Marine Management Organisation**

CC Natural England  
Environment Agency

**PLANNING ACT 2008**

**THE ABLE MARINE ENERGY PARK DEVELOPMENT CONSENT ORDER 2012**

**WRITTEN REPRESENTATION**

**PLANNING INSPECTORATE REFERENCE NUMBER: TR030001**

**PLANNING INSPECTORATE REFERENCE NUMBER FOR MMO: ABLE – 0016**

**MMO INTERNAL REFERENCE NUMBER: DC9172**

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## **1. The Able Marine Energy Park**

- 1.1. On 23 February 2012, the Marine Management Organisation (the “MMO”) received notice under section 56 of the Planning Act 2008 (the “2008 Act”) that the Infrastructure Planning Commission (the “IPC”) had, on 12 January 2012, accepted an application made by Able Humber Ports Limited (the “Applicant”) for an order granting development consent (the “DCO Application”) (MMO ref: DC9172; IPC ref: TR030001).
- 1.2. Amongst other things, the DCO Application includes a draft development consent order (the “DCO”) and an environmental statement (the “ES”). The draft DCO includes a draft Deemed Consent under the Marine and Coastal Access Act 2009 (the “2009 Act”) (the “Deemed Marine Licence”).
- 1.3. The DCO Application seeks authorisation for the Able Marine Energy Park (AMEP), which involves a quay of solid construction on the south bank of the river Humber together with an ecological compensation scheme comprising both temporary and permanent habitat creation on the north bank. Associated development includes dredging and land reclamation, onshore facilities for the manufacture, assembly and storage of marine energy installation components. Ancillary matters include compulsory purchase of land, harbour regulation and the diversion of two footpaths (the “Project”).
- 1.4. The Project would comprise a range of terrestrial and marine developments and several work items have the potential to impact on the marine area.

## **2. Scope of these representations**

- 2.1. This document comprises the MMO’s comments in respect of the DCO Application in the form of a written representation<sup>1</sup>. This is without prejudice to any future representation the MMO may make about the DCO Application throughout the examination process. This is also without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for anything else.
- 2.2. The MMO has already provided initial comments in respect of the DCO Application in the form of a relevant representation, submitted to the IPC, now the National Infrastructure Directorate of the Planning Inspectorate on 2 April 2012 (Annex 1). The MMO’s written representation provides an update on the progress made with the Applicant regarding issues initially raised in the relevant representations, and in view of the discussions that have taken place with the Applicant to date on the Statement of Common Ground (“SoCG”) and the Deemed Marine Licence. This written representation outlines those parts of the DCO Application with which the MMO agrees, those parts with which the MMO does not agree, and those issues which are outstanding.
- 2.3. The MMO’s written representation comprises the following:

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<sup>1</sup> Submitted in pursuance of rule 10(1) of the Infrastructure Planning (Examination Procedure) Rules 2010.

- Update on the MMO's comments on licensing requirements under Part 4 of the 2009 Act – **section 3**
- Update on the MMO's comments on the DCO – **section 4**
- Update on the MMO's comments on the environmental impact assessment – **section 5**

2.4. The MMO will continue to consider the DCO Application and reserves the right to add to, amend or withdraw, from time to time, part or all of these representations.

### **3. Update on the MMO's comments on licensing requirements under Part 4 of the 2009 Act**

3.1. The MMO has agreed with the Applicant that the following activities being undertaken as part of the Project are activities which require a licence under s. 66 of the 2009 Act:

- construction of the quay, to include:
  - piling (tubular, sheet metal and anchor)
  - fenders
  - rock armour protection
  - land reclamation
  - relocation of E.ON and Centrica outfalls within the quay perimeter
  - monitoring buoys
- construction and removal of seven temporary dolphins
- backfilling of a berthing pocket with gravel and rock aggregate
- works to the pumping station, to include:
  - temporary sheet pile cofferdam
  - excavation of the foreshore
  - six drainage pipes
  - stone mattressing of drainage channel
- construction of the compensation site, to include:
  - breaching of the sea wall
  - excavation of the foreshore
  - placement of excavated material in construction of new flood defence
  - erosion protection
- works to North Killingholme Haven Pits, to include:
  - works to an existing sluice
- capital dredging of the following areas:
  - reclamation area for the construction of the quay
  - turning area
  - approach channel
  - berthing pocket

- excavation of a drainage channel on the south bank at the pumping station
- excavation of a drainage channel on the north bank at Cherry Cobb Sands compensation site
- plough dredging around the E.ON and Centrica outfall structures
- disposal of capital dredged material at sea
- maintenance dredging of the following areas:
  - turning area
  - approach channel
  - berthing pocket
  - excavation of a drainage channel on the south bank at the pumping station
  - excavation of a drainage channel on the north bank at Cherry Cobb Sands compensation site
  - plough dredging around the E.ON and Centrica outfall structures
- disposal of maintenance dredged material at sea

3.2. The MMO is not yet satisfied that an adequate assessment of the marine works has been presented in the application documents. The MMO has requested the Applicant to provide a sign-posting document to demonstrate where in the application documentation the works have been considered, or to provide additional information where required.

#### **4. Update on the MMO's comments on the DCO**

4.1. The MMO's relevant representation as submitted on 2 April 2012 contains the MMO's detailed comments on the DCO. The comments made in the MMO's relevant representation remain relevant and should be referred to alongside this written representation. They are provided at Annex 1 for ease of reference.

4.2. Of principal concern to the MMO are:

- Part 1, Interpretation, paragraph 2 and Schedule 10: definition of the Jurisdiction of the Harbour Authority
- Part 4, paragraph 12: definition of the jurisdiction for the Right to dredge
- Schedule 8: Drafting of the Deemed Marine Licence
- Schedule 9 and 11: marine provisions

4.3. With regards paragraphs 5.1 to 5.10 and 5.52 to 5.63 of the MMO's relevant representations, which include comments on Part 1, Part 4, Schedules 9, 10 and 11, the MMO understands that the Applicant is considering comments made by the MMO and will respond to them in their written representations on 27 June 2012. The MMO has discussed these points with the Applicant, but is not in a position to provide an update to the Examining Authority (ExA) until it has had sight of the Applicants proposed amendments to the DCO.

4.4. With regards to Schedule 8, the Deemed Marine Licence, the MMO has provided the Applicant with a partially completed draft template of a marine licence as it might look if the application had been made to the MMO. This was not provided as an

example of what the MMO expect the Deemed Marine Licence to look like, but rather was provided to give an indication to the Applicant of the level of detail the MMO expect the Deemed Marine Licence to contain. Similarly, it is included here at Annex 2 to provide the same information to the ExA. This level of detail is required to ensure the MMO can fulfil its responsibilities post-consent in the event that development consent is granted.

- 4.5. The MMO understands that the Applicant has considered the comments made in the MMO's relevant representation, and in the partially completed draft template of a marine licence provided by the MMO, and intends to address them in their written representation to the ExA on 27 July 2012. The MMO understands this will include a revised draft of the Deemed Marine Licence at Schedule 8. As such, the MMO do not consider it would be helpful to provide the current draft to the ExA at this stage.
- 4.6. The MMO accepts that the Applicant may wish to draft the Deemed Marine Licence in line with statutory instrument drafting practices. Nevertheless, the MMO emphasises the importance of ensuring that the licensed activities are sufficiently detailed for post-consent purposes.
- 4.7. As the MMO has not had sight of the revised draft, at present, the comments made in the MMO's relevant representations remain outstanding. However, the MMO considers that those comments can be addressed through modifications to the drafting of the Deemed Marine Licence at Schedule 8.
- 4.8. The MMO hopes to be in a position to provide further advice at the Issue Specific Hearing on the draft Development Consent Order including the draft Deemed Marine Licence due to be held on 12 July 2012.

## **5. Update on the MMO's comments on the environmental impact assessment**

- 5.1. Regular meetings have been held between the Applicant, the MMO, the Environment Agency and Natural England where environmental topics have been discussed.
- 5.2. In addition, the MMO and the Applicant have been working together to complete a table addressing comments made in sections 7 and 8 of the MMO's relevant representations. The most recent version of the table is provided at Annex 3.
- 5.3. In response to comments made by the MMO and others, the Applicant has undertaken to provide additional information in order to address questions and issues raised. The latest version of this list of additional reports is provided at Annex 4 as provided to the MMO on 15 June 2012.
- 5.4. As these reports have either only recently been circulated or are still outstanding, the MMO is not in a position to provide detailed written advice to the ExA at this time on the contents of these reports. The MMO advised the Panel of this at the Preliminary Meeting held on 24 May 2012 and wrote to the Applicant on this point on 29 May 2012 (Annex 5).
- 5.5. The MMO has also requested that the applicant provide two additional reports; one detailing the work to be undertaken at North Killingholme Haven Pits and a second

detailing where all marine works have been considered either in the Application documentation, or in additional reports. These are not included in the list in Annex 4 as provided by the Applicant, but the MMO expect this information to be provided.

## **6. Conclusions**

- 6.1. The MMO would expect the Applicant to address any outstanding issues in response to the MMO's relevant and written representations.

**Marine Management Organisation**

**22 June 2012**