



# The Sizewell C Project

## 9.10.18 Initial Statement of Common Ground - Marine Management Organisation

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## 1 INTRODUCTION

### 1.1 Status of the SOCG

1.1.1 This Statement of Common Ground ('SoCG') has been prepared in respect of the application for a development consent order ('DCO') to the Planning Inspectorate ('PINS') under the Planning Act 2008 ('the Application') for the proposed Sizewell C Project.

1.1.2 This SoCG Version 01 has been prepared by NNB Generation Company (SZC) Limited ('SZC Co.') as the Applicant and the Marine Management Organisation (MMO) and agreed on tbc.

1.1.3 This SoCG has evolved through a programme of engagement and series of versions as detailed in Section 2.

### 1.2 Purpose of this document

1.2.1 The purpose of this SoCG is to set out the position of the parties on a range of issues arising from the application for development consent for the construction and operation of the Sizewell C nuclear power station and together with the proposed associated development (hereafter referred to as 'the Sizewell C Project').

1.2.2 This SoCG has been prepared in accordance with the 'Guidance for the examination of applications for development consent' published in March 2015 by the Department of Communities and Local Government (hereafter referred to as 'DCLG guidance').

1.2.3 Paragraph 58 of the DCLG Guidance states:

*"A statement of common ground is a written statement prepared jointly by the applicant and another party or parties, setting out any matters on which they agree. As well as identifying matters which are not in real dispute, it is also useful if a statement identifies those areas where agreement has not been reached. The statement should include references to show where those matters are dealt with in the written representations or other documentary evidence"*

1.2.4 The aim of this SoCG is to inform the Examining Authority and provide a clear position of the state and extent of discussions and agreement between SZC Co. and the Marine Management Organisation on matters relating to the Sizewell C Project.

- 1.2.5 This SoCG does not seek to replicate information which is available elsewhere within the DCO application documents. All documents are available on the Planning Inspectorate website <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/the-sizewell-c-project/>).

### 1.3 Parties to this Statement of Common Ground

- 1.3.1 On 27<sup>th</sup> May 2020, SZC Co. submitted an application to the Planning Inspectorate for development consent to build and operate a new nuclear power station, Sizewell C, along with the associated development required to enable construction and operation. A further submission was made to the Planning Inspectorate on 12 January 2021 proposing changes to several elements of the project, including (but not limited to) small changes to the permanent Beach Landing Facility (BLF), addition of a second, temporary BLF, design changed to the sea defence and the addition of a temporary outfall for drainage of surface water to the beach.
- 1.3.2 The Marine Management Organisation is responsible for enforcement of all elements of the Marine and Coastal Access Act in England. This includes issuing Marine Licences for any works in or over the sea below the mean high-water spring (MHWS) tidal mark. MMO is also the competent authority in England for issuing Harbours Orders.
- 1.3.3 Collectively SZC Co. and the Marine Management Organisation are referred to as ‘the parties’.
- 1.3.4 Matters of interest to the Marine Management Organisation and which are detailed in Section 2 of this SoCG are as follows:
- Proposed development on the main development site.
  - Coastal geomorphology and hydrodynamics
  - Marine water quality
  - Marine ecology
  - Waste and Materials Management.
  - Water Framework Directive (WFD) Assessment.
  - Habitats Regulations Assessment.

1.3.5 In addition, other DCO application documents of interest to the Marine Management Organisation include:

- Draft DCO (including the Requirements)
- Draft Harbour Powers (Section 6 of draft DCO)
- Draft Marine Licence (Schedule 20 of Draft DCO)
- Code of Construction Practice
- Mitigation Route map

## 1.4 Structure of this Statement of Common Ground

1.4.1 Chapter 2 provides a schedule which details the matters of agreement and disagreement between the parties.

1.4.2 **Appendix A** provides a summary of engagement undertaken to establish this SoCG.

1.4.3 **Appendix B** provides a schedule which identifies pre-application meetings and workshops between SZC Co and the Marine Management Organisation, including joint stakeholder meetings and workshops.

## 2 POSITION OF THE PARTIES

2.1.1 Table 2.1 to 2.8 provide details on the areas of agreement and disagreement between the parties.

**Table 2.1 Position of the Parties – SZC Co. and Marine Management Organisation on Costal Geomorphology and Hydrodynamics**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
<b>Main Development Site [Only]</b>							
MDS_CGH1	The overarching methodology for the assessment of impacts on Coastal Geomorphology and Hydrodynamics as detailed in <b>Volume 1 Appendix 6P and section 20.3 of Volume 2 Chapter 20</b> of the ES.	6.3	There is no comment on the overarching methodology in the MMO relevant representations. Based on this, and considerable pre-application engagement, we assume this is agreed.  DCO Addendum (2021) uses same method so no change in position expected	MMO still seeking clarity on minor comments, see detailed SoCG.	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_CGH2	The construction mitigation, management and monitoring measures detailed in <b>Part B</b> section 12 of the <b>Code of Construction Practice</b> .	8.11	There is no comment on the CoCP in the MMO relevant representations; we assume this is agreed. DCO Addendum (2021) has updated CoCP, change in MMO position possible	All mitigation measures still being discussed.	Y		In progress
MDS_CGH3	The securing mechanisms to control impacts on coastal geomorphology and hydrodynamics as detailed in the <b>Mitigation Route Map</b> including:	8.12 3.1	There is no comment on the securing mechanisms in the MMO relevant representations; we assume the means by which mitigation is agreed in principle but understand that scope and wording	Appropriate mitigation still to be discussed and agreed.	Y		In progress



**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	<ul style="list-style-type: none"> <li>- DCO Article 3 (Scheme design)</li> <li>- Requirement 2 (PW: CoCP)</li> <li>- Deemed Marine Licence Conditions, in particular Conditions 11, 17, 37, 40, 41, 42, 43, 44 and 49.</li> </ul>		<p>etc needs to be finalised (see also Table 2.4).</p> <p>DCO Addendum (2021) provides updated draft DCO (with DML) for consideration by MMO.</p>				
MDS_CGH4	The baseline characterisation of the Greater Sizewell Bay's (GSB) coastal geomorphology and hydrodynamics relevant to the proposed Sizewell C marine infrastructureas	6.3	There is no comment on the baseline in the MMO relevant representations. Based on this, and considerable pre-application engagement, we	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	detailed in <b>section 20.4 of Volume 2 Chapter 20</b> and <b>Appendix 20A</b> section 3 of the ES.		assume this is agreed. DCO Addendum (2021) uses same baseline so no change in position expected.				
MDS_ CGH5	The proposed primary, secondary and tertiary mitigation measures to mitigate impacts as detailed in <b>section 20.5 and 20.12 of Volume 2 Chapter 20</b> . In particular the proposed Coastal Processes Monitoring and Mitigation Plan as defined in Condition	6.3	There is no comment on the primary or secondary mitigation in the MMO relevant representations. Based on this, and considerable pre-application engagement, we assume this is agreed. The Coastal Processes Monitoring and Mitigation Plan (CPMMP) is the	Is Chapter 20 going to be updated? Section 20.5.7 details primary mitigation for the Beach Landing Facility (BLF) which is now outdated (number of piles, length of BLF)  Primary and secondary mitigation measures still to	Y	Agreement of the CPMMP will be sought by consultation with the MMO and other stakeholders (e.g. East Suffolk Council, Environment Agency and Natural England) on future iterations of the plan in the normal manner for discharge of a DCO Requirement and	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	17 of the Marine Licence.		agreed mechanism for mitigation – MMO has seen 1st draft; final position not yet agreed. DCO Addendum (2021) uses same assumption so no change in position expected	be discussed and agreed. The Outline/In Principle CPMMP is still being discussed and yet to be agreed. Outline CPMMP must be agreed in examination. Post consent the final CPMMP will be submitted for approval which will contain the finer details. The final CPMMP must be in line with the In Principle CPMMP submitted in examination.		Marine Licence Condition. Agreement is not expected, or required, prior to the examination As per comment the outline CPMMP should be agreed in examination, with finer detail that is not yet known to be agreed post consent.	
MDS_CGH6	The assessment of impacts associated	6.3	Detailed design is not yet confirmed. Worst	Hard Coastal Defence Feature	Y	Detailed design of hard sea defence to	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	with the hard coastal defence feature as described in section 20.6 of Volume 2 Chapter 20 and Appendix 20A.		case assumed but to be confirmed. Lack of assessment of switch to NE wave climate discussed in meetings – agreed such a switch is not worst case (and therefore enveloped in assessment), but potential side-effects possible if accretion occurs at BLF abutment. DCO has revised (enhanced) BLF so potential for MMO view to change.	(HCDF) not within MMO remit. MMO do not have concerns about impacts associated with the hard coastal defence feature, although are aware further discussions will take place regarding this in relation to the CPMMP.		be provided prior to examination. Potential for accretion at Beach Landing Facility (BLF) abutment will be addressed in the next iteration of the CPMMP	
MDS_CGH7	The assessment of impacts associated with the soft coastal defence feature as described in section	6.3	Detailed design is not yet confirmed.	Detailed design still to be discussed. MMO would seek advice from Environment	Y	Proposed detailed design of soft sea defence to be provided prior to examination	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	20.7 of Volume 2 Chapter 20 and Appendix 20A.			<p>Agency (EA) and East Suffolk Council (ESC) on the detailed design.</p> <p>For the Soft Coastal Defence Feature (SCDF), the timing of its release of sediment is dependant on the rate of sea level rise experienced. The change to the HCDF (toe of the structure moved further towards the shoreline) means that the SCDF will begin its function earlier than previously intended, hence</p>			



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				the volume of sediment released during the lifetime of the SCDF will increase with it being recharged earlier in the project lifetime. However as the SCDF is intended to supply sediment using natural processes, as long as it is monitored and maintained as intended in the CPMMP, (Appendix 2.15A of the Environmental Statement (ES) addendum) with suitable amendments in line with the			

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				monitoring programme MMO is of the view that it will maintain its beneficial role in the coastal system.			
MDS_CGH8	The assessment of impacts associated with the beach landing facility as described in section 20.8 of <b>Volume 2 Chapter 20</b> and <b>Appendix 20A</b> .	6.3	Lack of assessment of switch to NE wave climate discussed in meetings – agreed such a switch is not worst case (and therefore enveloped in assessment), but potential side-effects possible if accretion occurs at BLF abutment. We see no reason or evidence for the promotion of a salient.	There is uncertainty in the predicted impacts on the subtidal regions (and outer longshore bar) due to the assessment of impacts from the BLFs being based on a consideration of the effect of the project on hydrodynamics via the bed shear stress without a sediment transport model being applied. The	Y	Potential for accretion at BLF abutment will be addressed in the next iteration of the CPMMP. Respond to MMO comments in detailed SoCG.	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			DCO has revised (enhanced) BLF so potential for MMO view to change.	uncertainty in these impact assessments leads to the various comments MMO have on the CPMMP, see our detailed SoCG.			
MDS_CGH9	The assessment of impacts associated with the nearshore outfalls as described in section 20.9 of Volume 2 Chapter 20 and Appendix 20A.	6.3	There is no comment on the assessment of the nearshore outfalls in the MMO relevant representations. Based on this, we assume this is agreed. DCO Addendum (2021) makes no change to the nearshore outfalls so no change in position expected.	No comments on the assessment of impacts at this stage. Further discussions to take place regarding monitoring and mitigation as part of the CPMMP.	N	Agree an outline plan for monitoring and mitigation	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_CGH10	The assessment of impacts associated with the offshore cooling water infrastructure as described in section 20.10 of Volume 2 Chapter 20 and Appendix 20A.	6.3	There is no comment on the assessment of the physical presence of the offshore outfalls in the MMO relevant representations. Potential effects of the thermal plume on sediment dynamics confirmed as addressed in the scour assessment. Based on this, we assume this is agreed. DCO Addendum (2021) makes no change to the offshore outfalls so no change in position expected.	No comments on the assessment of impacts at this stage. Further discussions to take place regarding monitoring and mitigation as part of the CPMMP.	N	Agree an outline plan for monitoring and mitigation	In progress
MDS_CGH11	The assessment of combinations of	6.3	There is no comment combinations of	The MMO have no comments to make	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	spatially and temporally overlapping marine components as described in section 20.11 of Volume 2 Chapter 20.		spatially and temporally overlapping marine components in the MMO relevant representations. Assume agreed. DCO Addendum (2021) has changes for BLF, second BLF and sea defence so change in MMO position possible.	at present. The MMO reserves the right to make comments in the future should any issues arise.			
MDS_CGH12	The residual effects of impacts associated with the hard coastal defence feature as described in section 20.6 of Volume 2 Chapter 20 and Appendix 20A.	6.3	Agreement subject to agreement of CPMMP. DCO Addendum (2021) has changes for sea defence so change in MMO; but CPMMP still applies.	The MMO have no comment to make at this stage. Further discussions required as part of the agreement of the In Principle CPMMP.	N	As for MDS_CGH5	In progress
MDS_CGH13	The residual effects of impacts associated with the soft coastal	6.3	As for MDS_CGH12.	Further discussions required as part of	Y	As for MDS_CGH5	In progress



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	defence feature as described in section 20.7 of Volume 2 Chapter 20 and Appendix 20A.			the agreement of the In Principle CPMMP.			
MDS_CGH14	The residual effects of impacts associated with the beach landing facility as described in section 20.8 of Volume 2 Chapter 20 and Appendix 20A.	6.3	Agreement subject to agreement of CPMMP. DCO Addendum (2021) has changes for permanent BLF and has additional BLF; CPMMP still applies.	MMO awaits further modelling. MMO has queries in our detailed SoCG regarding the BLF in relation to the CPMMP. Further discussions required as part of the agreement of the In Principle CPMMP.	Y	As for MDS_CGH5	In progress
MDS_CGH15	The residual effects of impacts associated with the nearshore outfalls as described in section 20.9 of Volume 2 Chapter 20 and Appendix 20A.	6.3	As for MDS_CGH9	Further discussions to take place regarding monitoring and mitigation as part of the CPMMP.	N		In progress

**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_CGH16	The residual effects of impacts associated with the offshore cooling water infrastructure as described in section 20.10 of Volume 2 Chapter 20 and Appendix 20A.	6.3	As for MDS_CGH10	Further discussions to take place regarding monitoring and mitigation as part of the CPMMP.	N		In progress

**Table 2.2 Position of the Parties - SZC Co. and Marine Management Organisation on Marine Water Quality and Sediments**

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_MWQ1	The overarching methodology for the assessment of impacts on marine water quality and sediments as detailed in <b>Volume 1 Appendix 6Q</b> and <b>section 21.3 of Volume 2 Chapter 21</b> of the ES.	6.3	There is no comment on the overarching methodology in the MMO relevant representations. Based on this, and considerable pre-application engagement, we assume this is agreed. Methodology is unchanged in DCO 2021 ES Addendum; change in position not expected.	MMO have not been able to locate Appendix 6Q. Please provide to MMO to review. This is ongoing until MMO have reviewed Appendix 6Q. MMO have asked for the Applicant to confirm what is meant by 'combined sources or ammonia' in section 21.3 of Chapter 21 of the ES. MMO have reviewed - '6.3 Volume 2 Main Development Site	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] but can not locate the Erratum where the Applicant states that clarity on this has been provided. Please provide the Erratum for MMO to review. (see MMO-149 in the detailed SoCG for details on this). This is ongoing until MMO have reviewed the 'Erratum' to the ES.			
MDS_ MWQ2	The construction mitigation, management and monitoring measures detailed in <b>Part B</b> section	8.11	There is no comment on the CoCP in the MMO relevant	All mitigation measures still being discussed.	Y		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	12 of the <b>Code of Construction Practice</b> .		representations; we assume this is agreed. DCO Addendum (2021) has updated CoCP, change in MMO position possible				
MDS_ MWQ3	The securing mechanisms to control impacts on marine water quality and sediments as detailed in the <b>Mitigation Route Map</b> including: <ul style="list-style-type: none"> <li>- DCO Article 3 (Scheme design)</li> <li>- Requirement 2 (PW: CoCP)</li> <li>- Deemed Marine Licence Conditions, in particular Conditions 11, 17, 18, 21, 22, 23,</li> </ul>	8.12 3.1	There is no comment on the securing mechanisms in the MMO relevant representations; we assume the means by which mitigation is agreed in principle but understand that scope and wording etc needs	Appropriate mitigation still to be discussed and agreed.	Y		In progress



Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	25, 26, 27 ,29, 35, 36, 38, 40, 41, 43, 44, 46, 48 and 49.  - WDA (Operational) Permit		to be finalised (see also Table 2.4). DCO Addendum (2021) provides updated draft DCO (with DML) for consideration by MMO.				
MDS_MWQ4	The baseline environment as detailed in <b>section 21.4 of Volume 2 Chapter 21</b> and <b>Appendices 21A-21F</b> , including:  - physical environment (incl. Appendix 21A); - temperature; - salinity (incl. Appendix 21A); - dissolved oxygen (incl. Appendix 21D);	6.3	There is no comment on the baseline in the MMO relevant representations. Based on this, and considerable pre-application engagement, we assume this is agreed. DCO Addendum (2021) uses same baseline so no	MMO have asked for clarity on the range of data to be provided (See MMO-151 in detailed SoCG). The applicant have stated this information is in the 'Erratum' to the ES. MMO have reviewed - '6.3 Volume 2 Main Development Site	N		In progress

**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	<ul style="list-style-type: none"> <li>- SSC;</li> <li>- nutrient status;</li> <li>- un-ionised ammonia (incl. Appendix 21F);</li> <li>- Priority and other substances (incl. Appendix 21A and B);</li> <li>- sediment quality (incl. Appendix 21D and E);</li> <li>- trace metal concentrations in the water and sediment; and</li> <li>- polycyclic aromatic hydrocarbons (PAH) and contaminants.</li> </ul>		change in position expected.	Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] but can not locate the Erratum. This is ongoing until MMO have reviewed the 'Erratum' to the ES. MMO has outstanding comments on Appendix 21E. See comments MMO-158-165 in detailed SoCG.			
MDS_MWQ5	The proposed primary, secondary and tertiary mitigation measures to mitigate impacts as detailed in <b>section 21.5</b>	6.3	There is no comment on the primary or secondary mitigation in the	The MMO has no comments to make at this stage. However the appropriate	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	and <b>21.7</b> of <b>Volume 2 Chapter 21</b> .		MMO relevant representations. Based on this, and considerable pre-application engagement, we assume this is agreed. DCO Addendum (2021) uses same assumption so no change in position expected	mitigation is still to be discussed and agreed with the input from other stakeholders.			
MDS_MWQ6	The assessment of impacts on marine water quality and sediments from dredging activities as described in section <b>21.6</b> of <b>Volume 2 Chapter 21</b> .	6.3	Agreed subject to provision of additional information on dredging at intake/outfall heads requested by MMO in	MMO has outstanding comments on section 21.6 of Volume 2 Chapter 21. See MMO-153-157 in detailed SoCG. These comments relate to	Y		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			relevant representations. DCO Addendum (2021) proposes revised dredging so change in position possible.	the use of ammonia, and justification for the values used for hydrazine.			
MDS_MWQ7	The assessment of impacts on marine water quality and sediments during construction of the Beach Landing Facility as described in section 21.6 of <b>Volume 2 Chapter 21</b> .	6.3	There is no comment on the construction of the BLF, so assume we are agreed. DCO Addendum (2021) proposes BLF design together with a second BLF so change in position possible.	MMO considers the assessment of impacts on marine water quality and sediments from the construction of the BLF is appropriate. However, further discussions are required in relation to monitoring the impacts of the dredging that is required.	Y		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_MWQ8	The assessment of impacts on marine water quality and sediments during construction of the Combined Drainage Outfall as described in section <b>21.6</b> of <b>Volume 2 Chapter 21</b> .	6.3	There is no comment on the construction of the CDO, so assume we are agreed. DCO Addendum (2021) makes no change to CDO construction so no change in position expected.	The MMO advises that there a DML condition is added requiring specific authorisation from MMO for tunnelling chemicals to be used.	N		In progress
MDS_MWQ9	The assessment of impacts on marine water quality and sediments during construction of the Fish Recovery and Return (FRR) outfalls as described in section <b>21.6</b> of <b>Volume 2 Chapter 21</b> .	6.3	There is no comment on the construction of the FRRs, so assume we are agreed. DCO Addendum (2021) makes no change to FRRs construction so no change in position expected.	The MMO advises that there a DML condition is added requiring specific authorisation from MMO for tunnelling chemicals to be used.	N		In progress



Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_MWQ10	The assessment of impacts on marine water quality and sediments during construction of the cooling water intake and outfalls as described in section 21.6 of Volume 2 Chapter 21.	6.3	There is no comment on the construction of the cooling water intake and outfalls per se, so assume we are agreed. However, see MDS_MWQ6 regarding dredging. DCO Addendum (2021) makes no change to the cooling water intake/outfall construction so no change in position expected. Discharges to the marine environment from	The MMO advises that there a DCO/DML condition is added requiring specific authorisation of tunnelling chemicals to be used.	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			the Tunnelling Boring Machines will be subject to a Water Discharge Activity permit from the Environment Agency. We see no reason for this to be repeated on the DML.				
MDS_MWQ11	The assessment of impacts on marine water quality and sediments from discharges from the CDO during construction as described in section 21.6 of <b>Volume 2 Chapter 21</b> and <b>Appendices 21E</b> and <b>21F</b> .	6.3	There is no comment on the construction discharges from the CDO in the MMO Relevant Representations; assume agreed. DCO Addendum (2021) makes no change to the CDO discharges so no	The MMO advises that there is a DML condition added requiring specific authorisation from MMO for tunnelling chemicals to be used during construction of the Combined Drainage Outfall.	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			change in position expected. Discharges to the marine environment from the Tunnelling Boring Machines will be subject to a Water Discharge Activity permit from the Environment Agency. We see no reason for this to be repeated on the DML.				
MDS_MW12	The assessment of impacts on marine water quality and sediments from discharges from the CDO during commissioning as described in section 21.6	6.3	Assumed agreed subject to clarification requested on ammonia and hydrazine in	MMO has outstanding comments on the impacts on marine water quality and sediments during operation of the	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	of <b>Volume 2 Chapter 21</b> and <b>Appendices 21E and 21F</b> .		Relevant Representations. DCO Addendum (2021) makes no change to the CDO discharges so no change in position expected.	Combined Drainage Outfall. This relates to the use of ammonia and justification for the values used for hydrazine (see MMO-154 in detailed SoCG).			
MDS_MWQ13	The assessment of impacts on marine water quality and sediments from discharges during operations from the FRR as described in <b>21.6</b> of <b>Volume 2 Chapter 21</b> .	6.3	There is no comment on the impacts on marine water quality from discharges from the FRRs in the MMO Relevant Representations; assume agreed. DCO Addendum (2021) provides more information on FRR discharges	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	Y		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			(TR520) so change in position expected possible.				
MDS_MWQ14	The assessment of impacts on marine water quality and sediments from discharges during operations from the cooling water outfall as described in <b>21.6</b> of <b>Volume 2 Chapter 21</b> .	6.3	MMO makes a number of comments requesting clarification on the assessment of impacts on marine water quality and sediments from discharges during operations from the cooling water outfall but none are expected to lead to disagreement. SZC assumes agreed following provision of	MMO has outstanding comments on the impacts on marine water quality and sediments during operation of the cooling water outfall. This relates to the justification for the values used for hydrazine (see MMO-157 in detailed SoCG).	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			additional information. DCO Addendum (2021) makes no change to the cooling water outfall discharges so no change in position expected.				
MDS_MWQ15	The residual effects from construction impacts on marine water quality and sediments as detailed in <b>section 21.8 of Volume 2 Chapter 21</b>	6.3	There is no comment on the residual impacts from MMO in their relevant representations; however, given initial impacts are assumed agreed we assume so too are residual impacts.	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	Y		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			DCO Addendum (2021) proposes changing to dredging so MMO position could change.				
MDS_MWQ16	The residual effects from commissioning impacts on marine water quality and sediments as detailed in <b>section 21.8 of Volume 2 Chapter 21</b>	6.3	There is no comment on the residual impacts from MMO in their relevant representations; however, given initial impacts are assumed agreed we assume so too are residual impacts. DCO Addendum (2021) makes no changes to commissioning	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	N		In progress

Ref.	Matter	Book ref.	SZC Co.	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			discharges so no change in position expected.				
MDS_MWQ17	The residual effects from operational impacts on marine water quality and sediments as detailed in <b>section 21.8 of Volume 2 Chapter 21</b>	6.3	There is no comment on the residual impacts from MMO in their relevant representations; however, given initial impacts are assumed agreed we assume so too are residual impacts. DCO Addendum (2021) makes no changes to operational discharges so no change in position expected.	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	N		In progress



**Table 2.3 Position of the Parties - SZC Co. and Marine Management Organisation on Marine Ecology and Fisheries**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
<b>Main Development Site [Only]</b>							
MDS_MEF1	The overarching methodology for the assessment of impacts on marine ecology and fisheries as detailed in <b>Volume 1 Appendix 6R</b> and <b>section 22.3</b> of <b>Volume 2 Chapter 22</b> of the ES.	6.3	There is no comment on the overarching methodology in the MMO relevant representations. Based on this, and considerable pre-application engagement, we assume this is agreed.	MMO does not require any changes to the overarching methodology for the assessment of impacts. MMO considers the methodology used is reasonable. However, in relation to the impacts to fisheries, MMO advises that a further sensitivity analysis should be carried out for	N	Further sensitivity analysis should be carried out for demersal fish assuming zero effectiveness of the LVSE design and FRR system.	In progress

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				demersal fish assuming zero effectiveness of the Low Velocity Side Entry (LVSE) design and Fish Return and Recovery (FRR) system. This will help to clarify uncertainties concerning potential local impact on demersal fish and their role in the local ecosystem. See our comments on the methodology for assessing impacts to fisheries in the detailed SoCG.			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_MEF2	The construction mitigation, management and monitoring measures detailed in <b>Part B</b> section 12 of the <b>Code of Construction Practice</b> .	8.11	There is no comment on the CoCP in the MMO relevant representations; we assume this is agreed.	It is noted that the CoCP contains the following mitigation: <ul style="list-style-type: none"> <li>• Use of a hydrohammer piling technique where feasible for installation of the marine piles of the two BLFs to suppress underwater noise.</li> <li>• Piling for construction of the two BLFs not to occur between 01 May and 31 August in any year.</li> </ul> The Code of Construction Practice (CoCP) is	Y	Add mitigation to DML	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				<p>secured as a requirement however this mitigation should be secured on the DML as well as it is within MMO jurisdiction.</p> <p>Reference to Unexploded Ordinance (UXO) detonation can be removed completely from CoCP.</p> <p>A Southern North Sea Special Area of Conservation (SAC) Site Integrity Plan (SIP) should be referenced as mitigation for the</p>			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				underwater noise created by piling. All mitigation measures still to be reviewed and agreed			
MDS_ MEF3	The securing mechanisms to control impacts on marine ecology and fisheries as detailed in the <b>Mitigation Route Map</b> including: <ul style="list-style-type: none"> <li>- DCO Article 3 (Scheme design)</li> <li>- Requirement 2 (PW: CoCP)</li> <li>- Deemed Marine Licence Conditions, in particular Conditions 11, 17, 18, 21, 24, 35,</li> </ul>	8.12 3.1	There is no comment on the securing mechanisms in the MMO relevant representations; we assume the means by which mitigation is agreed in principle but understand that scope and wording etc needs to be finalised (see also Table 2.4).	The Offshore Written Scheme of Investigation (WSI), Marine Mammal Mitigation Protocol (MMMP), Southern North Sea SAC SIP, and Sabellaria Monitoring Plan are not included in the Mitigation Route Map. MMO advises that all mitigation should be included here. The MMMP and	Y	Include all mitigation plans in the Mitigation Route Map. All Mitigation relevant to project elements that are below MHWS must be secured on the DML.	In progress

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	39, 40, 44, 45, 4, 49 and 50. - WDA (Operational) Permit		DCO Addendum (2021) provides updated draft DCO (with DML) for consideration by MMO.	SIP are also not secured via DML conditions.			
MDS_MEF4	The proposed primary, secondary and tertiary mitigation measures to mitigate impacts as detailed in <b>section 22.5</b> of <b>Volume 2 Chapter 22</b> and referenced appendices. In particular the Marine Mammal Mitigation Plan ( <b>Appendix 22N</b> of the ES), <i>Sabellaria</i> monitoring plan (ML Condition 45) and fish monitoring plan (ML Condition 50).	6.3	MMO suggest review to include any missing pathways raised in RRs. We assume agreed subject to this. DCO Addendum (2021) provides updated draft DCO (with DML) for consideration by MMO.	Further discussions required with Applicant and NE to agree the in principle MMMP and <i>Sabellaria</i> monitoring plan. MMO also requires a Southern North Sea SAC SIP to be implemented as mitigation to ensure that the Project, either alone or in combination with other plans or	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				<p>projects, will not exceed the noise thresholds for the Southern North Sea SAC.</p> <p>The MMO seek clarification around the fish monitoring plan as MMO do not believe that we have had sight of this and can not see it secured on the DML version 3.</p> <p>Additionally MMO requires further consideration of the Acoustic Fish Deterrent (AFD) options prior to excluding them as a form of mitigation.</p>			

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_ MEF5	The baseline for <i>plankton</i> as detailed in <b>sections 22.6b)</b> of <b>Volume 2 Chapter 22</b> and <b>Appendices 22A</b> (phytoplankton) and <b>22B</b> (zooplankton) of the ES.	6.3	There is no comment on the baseline in the MMO relevant representations. Based on this, we assume this is agreed. DCO Addendum (2021) uses same baseline so no change in position expected.	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	N		In progress
MDS7_ MEF6	The assessment of impacts on <i>plankton</i> as detailed in <b>section 22.6 c) and d)</b> of <b>Volume 2 Chapter 22</b> and <b>Appendix 22G</b> of the ES.	6.3	There is no comment on the plankton assessment in the MMO relevant representations. Based on this, and considerable pre-application	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	N		In progress



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			engagement, we assume this is agreed. DCO Addendum (2021) provides updated assessment for plankton; change in MMO position possible.				
MDS_MEF7	The proposed mitigation measures and monitoring to mitigate impacts on <i>plankton</i> as detailed in <b>section 22.12 of Volume 2 Chapter 22.</b>	6.3	There is no comment on the mitigation measures and monitoring in the MMO relevant representations. Based on this, we assume this is agreed. DCO Addendum (2021) provides updated	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.			In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			assessment for plankton; change in MMO position possible.				
MDS_MEF8	The residual effects for <i>plankton</i> as detailed in <b>section 22.13 of Volume 2 Chapter 22</b>	6.3	Given response at MDS_MEF5 we assume this is agreed (noting MMO relevant representation comment on Table 22.155). DCO Addendum (2021) provides updated assessment for plankton; change in MMO position possible.	The MMO have no comments to make at present. The MMO reserves the right to make comments in the future should any issues arise.	N		In progress
MDS_MEF9	The baseline for <i>benthic ecology</i> as detailed in <b>section 22.7 b) Volume 2</b>	6.3	There MMO requests a consideration of the baseline INNS in its	Resolved via detailed SoCG.	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	<b>Chapter 22 and Appendix 22C</b> of the ES.		relevant representations. Assume agreed subject to further information on INNS. DCO Addendum (2021) uses the same baseline so no change in position expected				
MDS_MEF10	The assessment of impacts on <i>benthic ecology</i> as detailed in <b>section 22.7 c) and d) of Volume 2 Chapter 22 and Appendix 22I</b> of the ES.	6.3	There is no comment on the benthic ecology assessment in the MMO relevant representations. Based on this, and considerable pre-application engagement, we	MMO has no comments to make regarding the impact assessment for benthic ecology at present. The MMO reserves the right to make comments in the future should any issues arise.	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			assume this is agreed. DCO Addendum (2021) provides updated assessment for benthic ecology; change in MMO position possible.				
MDS_MEF11	The proposed mitigation measures and monitoring to mitigate impacts on <i>benthic ecology</i> as detailed in <b>section 22.12 of Volume 2 Chapter 22</b> of the ES.	6.3	There is no comment on the mitigation measures and monitoring in the MMO relevant representations. Based on this, we assume this is agreed. DCO Addendum (2021) provides updated assessment for	Sabellaria Monitoring Plan still to be discussed and agreed. NE should be involved in discussions to agree the appropriate mitigation for Sabellaria.	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			benthic ecology; change in MMO position possible.				
MDS_MEF12	The residual effects for <i>benthic ecology</i> as detailed in <b>section 22.13 of Volume 2 Chapter 22</b>	6.3	Given response at MDS_MEF10 we assume this is agreed (noting MMO relevant representation comment on Table 22.155). DCO Addendum (2021) provides updated assessment for benthic ecology; change in MMO position possible.	MMO has no comments to make regarding the residual effects for benthic ecology that are detailed in Chapter 22 of the ES at present. The MMO reserves the right to make comments in the future should any issues arise.	Y		In progress
MDS_MEF13	The baseline for <i>fish</i> as detailed in <b>section 22.8 b) of Volume 2 Chapter 22</b>	6.3	There is no comment on the baseline in the MMO relevant	MMO has no comments to make on the baseline for fish at present. The	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	and <b>Appendix 22D</b> of the ES.		representations. Based on this, we assume this is agreed. DCO Addendum (2021) uses same baseline so no change in position expected.	MMO reserves the right to make comments in the future should any issues arise.			
MDS_MEF14	The assessment of impacts on <i>fish</i> as detailed in <b>section 22.8c)</b> and <b>d)</b> of <b>Volume 2 Chapter 22</b> and <b>Appendices 22I</b> and <b>22L</b> of the ES.	6.3	The MMO provides detailed narrative on the fish assessments which is helpful. Assume agreed subject to differing views on perceived benefit, or otherwise, of the of the LVSE head (and comments on Appendix 22G).	MMO consider that there are some remaining uncertainties relating to the fish impact assessment, and in some areas, a more conservative approach could have been adopted. Overall, MMO do not consider that these issues	Y	Potential for further discussion of perceived benefit of LVSE intake head based on MMO comments on supplemental information.	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			DCO Addendum (2021) provides updated fish assessment reports for consideration by MMO.	materially affect the conclusions of the assessment. MMO advises that a further sensitivity analysis should be carried out for demersal fish assuming zero effectiveness of the LVSE design and FRR system. This will help to clarify uncertainties concerning potential local impact on demersal fish and their role in the local ecosystem. See detailed comments in our detailed SoCG for			

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				the Applicant to address.			
MDS_MEF15	The proposed mitigation measures and monitoring to mitigate impacts on <i>fish</i> as detailed in <b>section 22.12</b> of <b>Volume 2 Chapter 22</b> of the ES.	6.3	MMO has requested SZC specific assessment of AFD feasibility. SZC Co considers infeasible; report to be provided. DCO Addendum (2021) provides updated fish assessment reports for consideration by MMO.	MMO would like to see further consideration of the AFD options prior to excluding them as a form of mitigation. MMO advises that a detailed Comprehensive Impingement Monitoring Programme (CIMP) should be provided and agreed. This could be required via a condition on the DML.	Y	Report on justification for not installing an AFD system to be provided to MMO. Under SZC review, date tbc but before 31 March 2021	In progress



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_MEF16	The residual effects for <i>fish</i> as detailed in <b>section 22.13 of Volume 2 Chapter 22</b>	6.3	There is no comment on the residual impacts from MMO in their relevant representations; however, based on MDS_MEF14 we assume so residual impacts to be confirmed. DCO Addendum (2021) provides updated fish assessment reports for consideration by MMO.	See MMO comment on MDS_MEF14.	Y	As for MDS_MEF14	In progress
MDS_MEF17	The baseline for <i>marine mammals</i> as detailed in <b>section 22.9 b) of Volume 2 Chapter 22</b> and <b>Appendix 22E</b> of the ES.	6.3	The MMO makes reference to further information that could inform the baseline but doesn't	MMO is content with the baseline for marine mammals at this stage.	N		Agreed

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			state the baseline is inadequate. Assume agreed based on pre-application discussions. DCO Addendum (2021) uses same baseline so no change in position expected.				
MDS_MEF18	The assessment of impacts on <i>marine mammals</i> as detailed in <b>section 22.9c)</b> and <b>d)</b> of <b>Volume 2 Chapter 22</b> and <b>Appendix 22L</b> of the ES.	6.3	The MMO states the underwater noise assessment is comprehensive and adequate. Assume agreed subject to confirmation of minor evidence gaps (potential toxicity of discharges and comments on Appendix 22L).	MMO note that some evidence gaps remain but MMO concurs that these uncertainties do not undermine the assessment that has been made. However MMO requests that you provide clarity	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			DCO Addendum (2021) provides updated assessment for noise etc based on proposal of additional BLF; change in MMO position possible.	as per our comments below. The outputs of the assessment of the impact magnitude of underwater noise from percussive piling on marine mammals, found in sections 2.17.41-2.17.46 of ES Addendum (Vol 1.), Chapter 2 [AS-181], are clearly presented. However, there are no details of the specific model or input parameters that have been used. These are assumed to be the			

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				<p>same as in Appendix L of the original ES (Doc Ref. 6.3) [APP-329]) but it would be helpful for the applicant to confirm this.</p> <p>Also please see our comments on the Underwater Noise Assessment in relation to the changes to the BLF in comments MMO-365 – 368 in our detailed SoCG.</p>			
MDS_MEF19	The proposed mitigation measures and monitoring to mitigate impacts on <i>marine mammals</i> as detailed in	6.3	The Marine Mammal Mitigation Protocol (MMMP) is still being developed but the MMO has	There are further discussions required to agree the in principle MMMP. There is	Y		In progress

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	section 22.12 of Volume 2 Chapter 22 of the ES.		provided some useful information to include in the next version. DCO Addendum (2021) provides updated assessment for noise etc based on proposal of additional BLF; change in MMO position possible.	no DML condition requiring a MMMP, this should be added to the DML. There is no DML condition requiring a Southern North Sea SAC SIP. This should be added to the DML, see comment MMO-237 in detailed SoCG. A DML condition should be added relating to specific authorisation from the MMO for tunnelling chemicals to be used. See comment MMO-			

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				191 in the detailed SoCG.			
MDS_MEF20	The residual effects for <i>marine mammals</i> as detailed in <b>section 22.13</b> of <b>Volume 2 Chapter 22</b>	6.3	As for MDS_MEF18	See MMO comment on MDS_MEF18.	Y		In progress
MDS_MEF21	The method for assessing impacts on <i>food-webs</i> as detailed in <b>section 22.10b</b> of <b>Volume 2 Chapter 22</b> of the ES		There is no comment on the method in the MMO Relevant Representations so assume agreed. DCO Addendum (2021) does not further assess food webs; change in position not expected.	The MMO has no comments at this stage. The MMO reserves the right to comment on this in the future should any issues arise.	N		In progress
MDS_MEF22	The baseline <i>food-web</i> as detailed in <b>section 22.10c</b>		There is no comment on the baseline in the	The MMO has no comments at this stage. The MMO	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	of <b>Volume 2 Chapter 22</b> of the ES		MMO Relevant Representations but there is reference to the inclusion on entrainment effects, so assume agreed subject to that confirmation. DCO Addendum (2021) does not further assess food webs; change in position not expected.	reserves the right to comment on this in the future should any issues arise.			
MDS_ MEF23	The assessment of impacts on <i>indirect effects and food-webs</i> as detailed in <b>section 22.10d) of Volume 2 Chapter 22</b> of the ES		There is no comment on the impacts in the MMO Relevant Representations but there is reference to the inclusion on entrainment effects,	The MMO has no comments at this stage. The MMO reserves the right to comment on this in the future should any issues arise.	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			so assume agreed subject to that confirmation. DCO Addendum (2021) does not further assess food webs; change in position not expected.				
MDS_MEF24	The baseline for <i>commercial and recreational fisheries</i> as detailed in <b>section 22.11 b)</b> of <b>Volume 2 Chapter 22</b> and <b>Appendix 22F</b> of the ES.		The MMO query the inclusion of a paper by Walmsley and the robustness of the recreational angling baseline in its relevant Representation. SZC Co to provide further information. The Walsmely paper (for Defra) remains unavailable		Y	Potential for further discussion based on MMO comments on supplemental information (date tbc).	In progress



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			however SZC Co is of the view that the data are sufficient to define the EIA baseline, although economic value was not attainable. DCO Addendum (2021) provides an update assessment of commercial and recreational fisheries based on additional BLF; change in MMO position possible.				
MDS_MEF25	The assessment of impacts on <i>commercial and recreational fisheries</i> as detailed in <b>section 22.11c)</b> and <b>d) of Volume 2 Chapter 22</b> and		Baseline queries notwithstanding, the MMO did not comment on the assessment of	MMO awaits further information from Applicant. See our comments MMO-204 and 205 in detailed SoCG	Y		In progress

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	Appendices 22I and 22L of the ES.		impacts; assume agreed. DCO Addendum (2021) provides and update assessment of commercial and recreational fisheries based on additional BLF; change in MMO position possible.	which ask for clarification regarding potential exclusion zones and potting for whelks. See comments MMO- 349-353 in the detailed SoCG regarding a further sensitivity analysis for demersal fish assuming zero effectiveness of LVSE design and FRR system. Also see comment MMO-222 in detailed SoCG. The current text in TR406 is not considered adequate. MMO			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				requires further consideration of the Acoustic Fish Deterrent (AFD) options prior to excluding them as a form of mitigation. Also see our comments MMO-216-218 in the detailed SoCG.			
MDS_ MEF26	The proposed mitigation measures and monitoring to mitigate impacts on <i>commercial and recreational fisheries</i> as detailed in <b>section 22.12</b> of <b>Volume 2 Chapter 22</b> of the ES.		Mitigation by means of liaison officer and forum and Notification to Mariners assumed agreed (minor MMO comment in Relevant Representation on lack of inclusion in	Ongoing. Mitigation still to be discussed and agreed. MMO requires discussions with stakeholders such as Maritime and Coastguard Authority (MCA)	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			parts of ES). Draft Section 106 agreement to be shared with MMO to agree wording. DCO Addendum (2021) provides an updated assessment of commercial and recreational fisheries based on additional BLF but same mitigation applies. Change in MMO position not expected.	and Trinity House (TH) regarding appropriate mitigation to be secured on DML to minimise impacts to navigation. For example the frequency of the Notifications to Mariners throughout construction and operation. See our comment MMO-206 in the detailed SoCG. As above MMO requires further consideration of the AFD options prior to excluding them as a form of			

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				mitigation for impacts to fish. MMO welcomes the proposals for a Fisheries Liaison and Co-existence Plan and an appointed Fisheries Liaison Officer.			
MDS_MEF27	The residual effects for <i>commercial and recreational fisheries</i> as detailed in <b>section 22.13</b> of <b>Volume 2 Chapter 22</b>		As for MDS_MEF25	See MMO comment on MDS_MEF25	Y		In progress

**Table 2.4 Position of the Parties - SZC Co. and Marine Management Organisation on the Marine Licence**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_ML1	The Introduction as defined in <b>of Schedule 20</b> of the draft <b>DCO</b>	3.1	The MMO made several comments on the content of Part 1 in its Relevant Representations. These have been addressed in the revised version submitted as part of the DCO Addendum (2021). Further consultation required to close out precise wording.	Ongoing see detailed SoCG.	Y	Meeting with MMO to discuss arranged for 1 March 2021.	In progress
MDS_ML2	The Licensed Activities and details as defined in	3.1	The MMO made several comments on the licensible	Ongoing see detailed SoCG.	Y	Meeting with MMO to discuss	In progress

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	of <b>Schedule 20</b> of the draft <b>DCO</b>		activities in its Relevant Representations. These have been addressed in the revised version submitted as part of the DCO Addendum (2021), most noticeable UXO detonation is now not included in the list of licensible activities. DCO Addendum (2021) includes revised and new descriptions for the MMO to consider.	Normally the DCO in Schedule 1 would describe the works packages in detail and then the DML would repeat what those descriptions are in this section for the marine licensible works. However, the descriptions in schedule 1 are quite vague. MMO need to be sure that the descriptions in the DML, in this expanded format, don't go beyond what is to be authorised under the main order.		arranged for 1 March 2021.	

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				The MMO request a break down of this so MMO can be clear that the descriptions in the DML are in line with the works packages authorised by the main order.			
MDS_ML3	The General Conditions as defined in <b>Part 3 (8) and (9) of Schedule 20</b> of the draft <b>DCO</b>	3.1	The MMO did not comment on these General Conditions in its Relevant Representations so assume agreed.	Ongoing. MMO require discussions with stakeholders to agree that the level of detail provided in the DML conditions is adequate. MMO will be contacting stakeholders to discuss this and	N		In progress



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				will feed back in future responses. Also see out comments in the detailed SoCG.			
MDS_ML4	The Pre-Construction Conditions as defined in <b>Part 3 (10) to (20) of Schedule 20</b> of the draft DCO	3.1	The MMO made several comments on pre-construction Conditions in its Relevant Representations. These have been addressed as much as possible and revised as required due to the changes proposed in the DCO Addendum (2021).	Ongoing. MMO require discussions with stakeholders to agree that the level of detail provided in the DML conditions is adequate. MMO will be contacting stakeholders to discuss this and will feed back in future responses. There are outstanding issues with the proposed	Y	Meeting with MMO to discuss arranged for 1 March 2021.	Not Agreed

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			<p>DCO Addendum (2021) includes revised and new descriptions for the MMO to consider.</p> <p>We feel that 6 months lead time for submission of Marine Licence returns is disproportionately long, given that the MMO's own KPI for full licence determination is only 13 weeks. Regardless, 6 months would provide several challenges to SZC:</p>	<p>timeframes for submission of documents stated in the conditions. MMO advises that a 6 month lead period (prior to the commencement of activities) is more appropriate and a realistic timeframe for MMO to approve detailed plans.</p> <p>MMO strongly disagrees with the inclusion of 'determination dates after which the undertaker may submit an appeal for nondetermination'</p>			

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			(i) the necessary detailed information is sometimes not available, as contractors 'cycle' in and out of site in an orchestrated manner as and when work areas become available (for example detailed method statements can often only be fully defined much closer to the start of works);	in the conditions. MMO should not have set determination periods in which to approve plans and protocols etc. This is for the MMO to approve the finer details before the works start, which the applicant can't provide during the application and examination process, so it's necessary for us to have enough time to properly scrutinise those documents. How long that takes us will depend on			

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			(ii) pre-submission consultation typically takes place with the Marine Technical Forum (MTF) so in light of (i) 6 months lead time means even longer if meaningful pre-application consultation can take place. Pre-application with the MTF also means that determination time by the MMO should	factors such as the quality of the plans submitted in the first instance, the MMO resource available at the time these documents come in for approval, how much consultation is required, and how long any consultees need to respond in a meaningful way. MMO does not delay determinations without necessity. If MMO delay unduly then there are existing routes			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			be considerably shortened. SZC Co feels determination deadlines are essential for a large infrastructure project like Sizewell C where delays can add significant costs (£millions) to the project. Judicial Review requires very well defined criteria to be met and SZC Co feels that JR would not be the suitable route for appeal. Similarly, SZC Co	to challenge this via our internal complaints system or via judicial review. MMO don't set determination timescales in condition sign offs within stand alone marine licences and DMLs should be as consistent as possible with standalone Marine Licences. See our comments on the Appeals procedure in MDS_DCO6.			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			feels that an independent route of appeal should be available and that the MMO internal complaints system is not suitable for a large infrastructure project such as Sizewell C.				
MDS_ML5	The Construction, Operation and Maintenance Conditions as defined in <b>Part 3 (21) to (50) of Schedule 20</b> of the draft <b>DCO</b>	3.1	The MMO made several comments on Construction, Operation and Maintenance Conditions in its Relevant Representations. These have been addressed as	Ongoing. MMO require discussions with stakeholders to agree that the level of detail provided in the DML conditions is adequate. MMO	Y	Meeting with MMO to discuss arranged for 1 March 2021.	Not Agreed

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			much as possible and revised as required due to the changes proposed in the DCO Addendum (2021). DCO Addendum (2021) includes revised and new descriptions for the MMO to consider. See response at MDS_ML4 in relation to timelines	will be contacting stakeholders to discuss this and will feed back in future responses. Our comment in MDS_ML5 and MDS_DCO6 regarding timeframes, 'determination dates' and the enhanced Appeals procedure also apply here. Also see comments in detailed SoCG.			
MDS_ML6	The Co-ordinates as detailed in <b>Part 4</b> of <b>Schedule 20</b> of the draft DCO	3.1	The MMO did not comment on the co-ordinates	Ongoing. MMO advises that co-ordinates should be stated in	Y	Meeting with MMO to discuss	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			submitted so assume agreed. DCO Addendum (2021) includes revised coordinates for the MMO to consider.	WGS84 or as requested by navigational bodies.		arranged for 1 March 2021.	



**Table 2.5 Position of the Parties - SZC Co. and Marine Management Organisation on the Harbours Order and Powers**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_HO1	Incorporation / Application of the: Harbours, Docks and Piers Clauses Act 1847 as defined at <b>Part 6 (46)</b> of the draft <b>DCO</b> ; Pilotage Act 1987 as defined at <b>Part 6 (50)</b> of the draft <b>DCO</b> : and, Marine and Coastal Access Act 2009 as defined at <b>Part 6 (52)</b> of the draft <b>DCO</b>	3.1	Inclusion and application of the Harbours, Docks and Piers Clauses Act 1847 is considered agreed. Inclusion and application of Pilotage Act, and creation of CHA by means of DCO, contested by MMO. SZC to engage further with MMO on this. Inclusion and application of the Marine and Coastal Access Act 2009 is not appropriate and	Ongoing, further information is required see comments MMO-28 -32 and MMO-437 in detailed SoCG. Clarification is required as to who is intended to be appointed as the harbour authority, and therefore become the body responsible for the harbour. Further information is required	Y	Meeting with MMO to discuss arranged for 1 March 2021.	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			has been removed from the DCO 2021 Addendum version. DCO Addendum (2021) includes a revised version of Section 6 Harbour Powers for the MMO to consider. Further engagement necessary.	regarding the charging of rates and fines. Clarification is required regarding the application of the Marine and Coastal Access Act 2009 (MACAA) within a provision in the harbour order.			
MDS_HO2	Harbour authority as defined at <b>Part 6 (48)</b> of the draft <b>DCO</b>	3.1	The MMO makes no reference to Article 48 in its Relevant Representations so assume agreed. DCO Addendum (2021) includes a revised version of Section 6 Harbour	Ongoing see detailed SoCG. Clarification is required as to who is intended to be appointed as the harbour authority, and therefore become the body responsible for the	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			Powers for the MMO to consider.	harbour? Currently the “undertaker” appears in the interpretation section at the start of the DCO: “undertaker” means NNB Generation Company (SZC) Limited (company number 09284825) or any person who has the benefit of this Order in accordance with articles 8 (Benefit of Order) and 9 (Consent to transfer benefit of Order).			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				Can it be confirmed if you seek the requisite powers to be conferred as a harbour authority – or is it intended that these be conferred on a designated person or a body corporate? Clarification is required regarding what constitutes the “harbour” over which the newly constituted harbour authority will exercise jurisdiction. – eg clarify the specific works which relate			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				to the construction of a “harbour”.  Is the “harbour” to be temporary or permanent? Is it proposed that any temporary structures be dismantled after completion of the project?			
MDS_HO3	Limits of Harbour as defined at <b>Part 6 (51)</b> and <b>Schedule 19</b> of the draft <b>DCO</b>	3.1	The MMO makes no reference to Article 51 (other than a typo) in its Relevant Representations so assume agreed. DCO Addendum (2021) includes a revised version of Section 6 Harbour	Ongoing see detailed SoCG. The limits of the harbour should be very clear. The instrument should stipulate over which area the newly constituted harbour authority will have	Y		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			Powers for the MMO to consider.	jurisdiction to enable the harbour authority to exercise their powers of general direction and byelaws.			
MDS_HO4	Proposed clauses under Harbour Powers as defined in <b>Part 6 (46) to (75)</b> of the draft <b>DCO</b>	3.1	The MMO makes detailed comments on Harbour Powers clauses in its Relevant Representations, including 46, 50, 51,55, 62, 64, 65, 66, 67, 71 and 75. DCO Addendum (2021) includes a revised version of Section 6 Harbour Powers for the MMO to consider. Further	Ongoing see detailed SoCG.	Y	Meeting with MMO to discuss arranged for 1 March 2021.	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			engagement necessary.				
MDS_HO5	The statement of need as outlined in <b>Regulation 6 – Additional Information (Part 3)</b> of the draft DCO		The MMO makes no reference to Regulation 6 Additional Information (Part 3) in its Relevant Representations so assume agreed.	See detailed SoCG for further clarifications required regarding the statement of need.  Although the decision on the harbour powers sought in the DCO will be a matter for The Planning Inspectorate (PINS), to best support your application, it would be helpful if you could clarify which objects in	N		In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				Section 16 to the Harbours Act 1964 are to be achieved and how these objects meet the 'tests' or requirements in S16(5) of the HA 1964.			



**Table 2.6 Position of the Parties - SZC Co. and Marine Management Organisation on the draft Development Consent Order**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_DCO1	The General Provisions as defined in Part 1 of the DCO	3.1	The MMO requested further definitions in Article 1. DCO Addendum (2021) includes a revised draft DCO for the MMO to consider, however, the specific changes requested have not yet been made. Further discussion required.	Ongoing see comments MMO-09 and 10 in detailed SoCG. Further discussions required around the definitions of 'commence' and 'offshore'.	Y	Meeting with MMO to discuss arranged for 1 March 2021.	In progress

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
MDS_DCO2	Principal Powers as defined in Part 2 of the DCO	3.1	The MMO requested further information be added in Article 2. DCO Addendum (2021) includes a revised draft DCO for the MMO to consider, however, the specific changes requested have not yet been made. Further discussion required.	Ongoing. There should be maximum limits on horizontal and vertical deviations and this should be stated on the DCO. This can be the "worst-case" scenario deviations. See MMO-11 in detailed SoCG.	Y	Meeting with MMO to discuss arranged for 1 March 2021.	In progress
MDS_DCO3	The numbered works as defined in Schedule 1 (Authorised	3.1	The MMO made commentson	Normally the DCO in Schedule 1 would describe the works	Y	Meeting with MMO to discuss	In progress

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	Development) - Part 1, inasmuch as they relate to licensed activities included in the Marine Licence		Schedule 1 Part 1 (and Part 2 ). DCO Addendum (2021) includes a revised draft DCO for the MMO to consider, however, the specific changes requested have not yet been made. Further discussion required.	packages in detail and then the DML would repeat what those descriptions are in this section for the marine licensable works. However, the descriptions in schedule 1 are quite vague. MMO need to be sure that the descriptions in the DML, in this expanded format, don't go beyond what is to be authorised under the main order. Can you break this down to the MMO so we can be clear that the descriptions in the		arranged for 1 March 2021.	

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				DML are in line with the works packages authorised by the main order.			
MDS_DCO4	Schedule 2 (Requirements) insofar as they relate to licensed activities included in the Marine Licence	3.1	The MMO stated key mitigation documents should be included in the DCO requirements. The DCO Addendum (2021) includes a revised draft DCO for the MMO to consider.	Ongoing discussions required regarding the key mitigation documents to be captured within Schedule 2.	Y	Meeting with MMO to discuss arranged for 1 March 2021.	In progress
MDS_DCO5	Schedule 4 (Works Plans) insofar as they relate to licensed	3.1	The MMO makes no comment on	MMO has no comments to make on the Works Plans	Y		In progress

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	activities included in the Marine Licence		Schedule 4 in its relevant representations. Assume agreed. The DCO Addendum (2021) includes a revised draft DCO for the MMO to consider. In light of additional BLF and changes to the sea defence MMO position may change.	at present. The MMO reserves the right to make comments in the future should any issues arise.			
MDS_DCO6	Schedule 20A (Appeals procedure in relation to deemed marine licence)	3.1	SZC Co feels determination deadlines are essential for a large	MMO strongly disagree with the Appeals Procedure described in Schedule 20A and			Not Agreed

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			infrastructure project like Sizewell C where delays can add significant costs (£millions) to the project. Judicial Review requires very well defined criteria to be met and SZC Co feels that JR would not be the suitable route for appeal. Similarly, SZC Co feels that an independent route of appeal should be available and	require it to be removed from the DCO. Appeals are already available to the Applicant in the form of an escalated internal procedure and judicial review (JR), and therefore including any additional appeal mechanism for the MMO in the order is unnecessary. The Marine Licensing (Licence Application Appeals) Regulations 2011 apply a statutory appeal process to the decisions the MMO takes regarding whether to			

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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			that the MMO internal complaints system is not suitable for a large infrastructure project such as Sizewell C.	grant or refuse a licence or conditions which are to be applied to the licence. However, they do not include an appeal process to any decisions the MMO is required to give in response to an application to discharge any conditions of a marine licence issued directly by us. Therefore, if the DCO were to be granted with the proposed appeal process included, this would not be an appeal procedure broadly consistent			

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				with the existing statutory processes. This amendment would be introducing and making available to this specific Applicant a new and enhanced appeal process which is not available to other marine licence holders, which would create an unlevel playing field across the regulated community. The scale and complexity of Nationally Significant Infrastructure Projects creates no exception in this regard. See our			



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Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				detailed SoCG for further information.			

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**Table 2.7 Position of the Parties - SZC Co. and Marine Management Organisation on the Habitats Regulations Assessment (HRA)**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				The MMO defers to Natural England as the Statutory Nature Conservation body (SNCB) regarding matters relating to the Habitats Regulations Assessment (HRA). However, we do have a series of minor comments on the shadow HRA that we would be grateful for the Applicant to address. Please see the following comments in our details SoCG:			
				See MMO-245-297 for all previous comments raised in MMO's			N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
				Relevant Representation (all considered to be resolved now). See MMO-365-369 for all MMO's new comments for the Applicant to address.			
<b>SHADOW HRA REPORT VOLUME 1: SCREENING AND APPROPRIATE ASSESSMENT</b>							
<b>Scoping of European sites</b>							
HRA1	The list of European sites scoped into the Shadow HRA as detailed in <b>section 4.3 of Volume 1</b> of the Shadow HRA.	5.10	MMO state this is agreed in their Relevant Representation. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for		N		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			MMO to consider. No new sites included in respect of project changes.				
<b>Screening of potential effects</b>							
HRA2	The conclusions of the screening exercise for each European site as detailed in <b>section 5 of Volume 1</b> of the Shadow HRA and summarised in the screening matrices presented in <b>Appendix B of Volume 1</b> of the Shadow HRA.	5.10	MMO state this is broadly agreed in their Relevant Representation but provides specific detail on minor elements. Assume agreed. A sHRA Addendum was submitted with		N		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			2021 DCO change submission for MMO to consider.				
<b>Baseline conditions</b> The description of the baseline conditions for coastal, freshwater and terrestrial habitats for the relevant European sites as detailed in <b>section 6.2 of Volume 1</b> of the Shadow HRA, namely:							
HRA3	<ul style="list-style-type: none"> <li>Alde, Ore and Butley Estuaries SAC.</li> </ul>	5.10	MMO makes no specific comment on the baseline. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for				N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			MMO to consider.				
HRA4	<ul style="list-style-type: none"> <li>Alde-Ore Estuary Ramsar site.</li> </ul>	5.10	As for HRA3				N/A
HRA5	<ul style="list-style-type: none"> <li>Benacre to Easton Bavents Lagoons SAC.</li> </ul>	5.10	As for HRA3				N/A
HRA6	<ul style="list-style-type: none"> <li>Deben Estuary Ramsar site.</li> </ul>	5.10	As for HRA3				N/A
HRA7	<ul style="list-style-type: none"> <li>Dew's Ponds SAC.</li> </ul>	5.10	As for HRA3				N/A
HRA8	<ul style="list-style-type: none"> <li>Minsmere to Walberswick Heaths and Marshes SAC.</li> </ul>	5.10	As for HRA3				N/A
HRA9	<ul style="list-style-type: none"> <li>Minsmere-Walberswick Ramsar site.</li> </ul>	5.10	As for HRA3				N/A
HRA10	<ul style="list-style-type: none"> <li>Orfordness to Shingle Street SAC.</li> </ul>	5.10	As for HRA3				N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA11	<ul style="list-style-type: none"> <li>Stour and Orwell Estuaries Ramsar site.</li> </ul>	5.10	As for HRA3				N/A
The description of the baseline conditions for birds for the relevant European sites as detailed in <b>section 6.3</b> of <b>Volume 1</b> of the Shadow HRA, namely:							
HRA12	<ul style="list-style-type: none"> <li>Alde-Ore Estuary SPA</li> </ul>	5.10	Further survey work has been undertaken for birds and provided in the sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA13	<ul style="list-style-type: none"> <li>Alde-Ore Estuary Ramsar site</li> </ul>	5.10	As for HRA12		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA14	• Benacre to Easton Bavents SPA	5.10	As for HRA12		Y		N/A
HRA15	• Deben Estuary SPA	5.10	As for HRA12		Y		N/A
HRA16	• Deben Estuary Ramsar site	5.10	As for HRA12		Y		N/A
HRA17	• Minsmere to Walberswick SPA	5.10	As for HRA12		Y		N/A
HRA18	• Minsmere to Walberswick Ramsar site	5.10	As for HRA12		Y		N/A
HRA19	• Outer Thames Estuary SPA	5.10	As for HRA12		Y		N/A
HRA20	• Sandlings SPA	5.10	As for HRA12		Y		N/A
HRA21	• Stour and Orwell Estuaries SPA	5.10	As for HRA12		Y		N/A
HRA22	• Stour and Orwell	5.10	As for HRA12		Y		N/A



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	Estuaries Ramsar site						
The description of the baseline conditions for marine mammals for the relevant European sites as detailed in <b>section 6.4</b> of <b>Volume 1</b> of the Shadow HRA, namely:							
HRA23	<ul style="list-style-type: none"> <li>Humber Estuary SAC</li> </ul>	5.10	MMO makes no specific comment on the baseline. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA24	<ul style="list-style-type: none"> <li>Southern North Sea SAC</li> </ul>	5.10	As for HRA23		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA25	<ul style="list-style-type: none"> <li>The Wash and North Norfolk Coast SAC</li> </ul>	5.10	As for HRA23		Y		N/A
The description of the baseline conditions for migratory fish for the relevant European sites as detailed in <b>section 6.5</b> of <b>Volume 1</b> of the Shadow HRA, namely:							
HRA26	<ul style="list-style-type: none"> <li>Humber Estuary SAC</li> </ul>	5.10	MMO requested information on twaite shad from non-UK sites. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider	.	Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
<p><b>Conclusions of Stage 2 of the Shadow HRA (information for Appropriate Assessment) for European sites with coastal, freshwater and terrestrial habitat qualifying interest features (detailed in the sections referred to below and summarised in the integrity matrices presented in Appendices D1 and D3, of Volume 1 of the Shadow HRA)</b></p> <p>Alde, Ore and Butley Estuaries SAC and Alde-Ore Estuaries Ramsar site as detailed in <b>section 7.4 of Volume 1</b> of the Shadow HRA:</p>							
HRA27	<ul style="list-style-type: none"> <li>alteration of coastal processes / sediment transport</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA28	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 27		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA29	<ul style="list-style-type: none"> <li>disturbance due to an increase in recreational pressure</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA30	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA31	<ul style="list-style-type: none"> <li>water quality effects – terrestrial environment</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA32	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydrogeology</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA33	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 27		Y		N/A
Benacre to Easton Bavents Lagoons SAC as detailed in <b>section 7.5</b> , of <b>Volume 1</b> of the Shadow HRA:							
HRA34	<ul style="list-style-type: none"> <li>alteration of coastal processes /</li> </ul>	5.10	As for HRA 27		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	sediment transport; and						
HRA35	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA36	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 27		Y		N/A
Dew's Ponds SAC as detailed in <b>section 7.6</b> of <b>Volume 1</b> of the Shadow HRA:							
HRA37	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydrogeology</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA38	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 27		Y		N/A
Minsmere to Walberswick Heaths and Marshes SAC as detailed in <b>section 7.7</b> of <b>Volume 1</b> of the Shadow HRA							
HRA39	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 27		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA40	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA41	<ul style="list-style-type: none"> <li>alteration of coastal processes/sediment transport</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA42	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 27		Y		N/A
HRA43	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 27		Y		N/A
Minsmere-Walberswick Ramsar site as detailed in <b>section 7.8</b> of <b>Volume 1</b> of the Shadow HRA							
HRA44	<ul style="list-style-type: none"> <li>alteration of coastal processes/sediment transport</li> </ul>	5.10	MMO advised that the assessment should include intertidal mudflat habitat		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			particularly in Blyth and the overlap with the Blyth estuary. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.				
HRA45	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA44		Y		N/A
HRA46	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydrogeology</li> </ul>	5.10	As for HRA44		Y		N/A
HRA47	<ul style="list-style-type: none"> <li>water quality effects –</li> </ul>	5.10	As for HRA44		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	terrestrial environment						
HRA48	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA44		Y		N/A
HRA49	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA44		Y		N/A
HRA50	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA44		Y		N/A
Orfordness to Shingle Street SAC as detailed in <b>section 7.9</b> of <b>Volume 1</b> of the Shadow HRA							
HRA51	<ul style="list-style-type: none"> <li>alteration of coastal processes / sediment transport</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change		Y		N/A



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			submission for MMO to consider.				
HRA52	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 51		Y		N/A
HRA53	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 51		Y		N/A
HRA54	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 51		Y		N/A
HRA55	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 51		Y		N/A
<p><b>Conclusions of Stage 2 of the Shadow HRA (information for Appropriate Assessment) for European sites with bird qualifying interest features (detailed in the sections referred to below and summarised in the integrity matrices presented in Appendix D2, of Volume 1 of the Shadow HRA)</b></p> <p>Alde-Ore Estuary SPA as detailed in <b>section 8.3</b> of <b>Volume 1</b> of the Shadow HRA</p>							

SIZEWELL C PROJECT – STATEMENT OF COMMON GROUND  
MARINE MANAGEMENT ORGANISATION

**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA56	<ul style="list-style-type: none"> <li>alteration of coastal processes / sediment transport</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA57	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	MMO suggests foraging area affected by thermal plumes may be underestimate. A sHRA Addendum was submitted with		Y	Potential for further discussion based on MMO comments on supplemental information (date tbc).	N/A

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**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			2021 DCO change submission for MMO to consider.				
HRA58	<ul style="list-style-type: none"> <li>water quality effects – terrestrial environment</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA59	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydro-geology</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA60	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA61	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA62	<ul style="list-style-type: none"> <li>physical interaction between</li> </ul>	5.10	MMO seeks clarity on fish impingement		Y	Potential for further discussion	N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	species and project infrastructure		and entrainment assessments (with regards to prey) before agreeing AA of impacts on SPA birds.  MMO suggests foraging area affected by thermal plumes may be underestimated A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.			based on MMO comments on supplemental information (date tbc).	

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA63	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	Not confirmed due to position on in-isolation effects. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y	Potential for further discussion based on MMO comments on supplemental information (date tbc).	N/A
Alde-Ore Estuary Ramsar site as detailed in <b>section 8.4</b> of <b>Volume 1</b> of the Shadow HRA							
HRA64	<ul style="list-style-type: none"> <li>alteration of coastal processes / sediment transport</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA65	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 57		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA66	<ul style="list-style-type: none"> <li>water quality effects – terrestrial environment</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA67	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydro-geology</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA68	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA69	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 56		Y		N/A
HRA70	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	As for HRA 62		Y		N/A
HRA71	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 63		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
Benacre to Easton Bavents SPA as detailed in <b>section 8.5</b> of <b>Volume 1</b> of the Shadow HRA							
HRA72	<ul style="list-style-type: none"> <li>alteration of coastal processes / sediment transport</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA73	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 72		Y		N/A
HRA74	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 72		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA75	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	As for HRA 72		Y		N/A
HRA76	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 72		Y		N/A
Deben Estuary SPA as detailed in <b>section 8.6</b> of <b>Volume 1</b> of the Shadow HRA							
HRA77	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for		Y		N/A



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			MMO to consider.				
HRA78	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 77		Y		N/A
Deben Estuary Ramsar site as detailed in <b>section 8.7</b> of <b>Volume 1</b> of the Shadow HRA							
HRA79	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA80	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 77		Y		N/A
Minsmere-Walberswick SPA as detailed in <b>section 8.8</b> of <b>Volume 1</b> of the Shadow HRA							
HRA81	<ul style="list-style-type: none"> <li>alteration of coastal processes / sediment transport</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA82	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 81		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA83	<ul style="list-style-type: none"> <li>water quality effects – terrestrial environment</li> </ul>	5.10	As for HRA 81		Y		N/A
HRA84	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydrogeology</li> </ul>	5.10	As for HRA 81		Y		N/A
HRA85	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 81		Y		N/A
HRA86	<ul style="list-style-type: none"> <li>direct habitat loss and fragmentation</li> </ul>	5.10	As for HRA 81		Y		N/A
HRA87	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	As for HRA 81		Y		N/A
HRA88	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 81		Y		N/A
HRA89	<ul style="list-style-type: none"> <li>physical interaction</li> </ul>	5.10	As for HRA 81		Y		N/A

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	between species and project infrastructure						
HRA90	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	Clarification of in-combination effects if there are alone impacts for Marsh Harrier. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
Minsmere-Walberswick Ramsar site as detailed in <b>section 8.9</b> of <b>Volume 1</b> of the Shadow HRA							
HRA91	<ul style="list-style-type: none"> <li>alteration of coastal processes /</li> </ul>	5.10	MMO makes no specific comment.		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	sediment transport		Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.				
HRA92	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA93	<ul style="list-style-type: none"> <li>water quality effects – terrestrial environment</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA94	<ul style="list-style-type: none"> <li>alteration of local hydrology and hydrogeology</li> </ul>	5.10	As for HRA 92		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA95	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA96	<ul style="list-style-type: none"> <li>direct habitat loss and fragmentation</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA97	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA98	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA99	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	As for HRA 92		Y		N/A
HRA100	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA 92		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
Outer Thames Estuary SPA as detailed in <b>section 8.10</b> of <b>Volume 1</b> of the Shadow HRA							
HRA101	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	MMO suggests foraging area affected by thermal plumes may be underestimated .  A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y	Potential for further discussion based on MMO comments on supplemental information (date tbc).	N/A
HRA102	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	MMO makes no specific comment. Assume agreed.		Y		N/A

SIZEWELL C PROJECT – STATEMENT OF COMMON GROUND  
MARINE MANAGEMENT ORGANISATION

**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.				
HRA10391	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	MMO seeks clarity on fish impingement and entrainment assessments (with regards to prey) before agreeing AA of impacts on SPA birds. MMO suggests foraging area affected by		Y	Potential for further discussion based on MMO comments on supplemental information (date tbc).	N/A

**NOT PROTECTIVELY MARKED**



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			thermal plumes may be underestimated .  A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.				
HRA104	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	Not confirmed due to position on isolation effects.  A sHRA Addendum was submitted with 2021 DCO change submission for		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			MMO to consider.				
Sandlings SPA as detailed in <b>section 8.11</b> of <b>Volume 1</b> of the Shadow HRA							
HRA106	<ul style="list-style-type: none"> <li>changes in air quality</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA106	<ul style="list-style-type: none"> <li>direct habitat loss and fragmentation</li> </ul>	5.10	As for HRA105		Y		N/A
HRA107	<ul style="list-style-type: none"> <li>disturbance effects on</li> </ul>	5.10	As for HRA105		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	species populations						
HRA108	<ul style="list-style-type: none"> <li>disturbance due to increase in recreational pressure</li> </ul>	5.10	As for HRA105		Y		N/A
HRA109	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA105		Y		N/A
Stour and Orwell Estuaries SPA as detailed in <b>section 8.12</b> of <b>Volume 1</b> of the Shadow HRA							
HRA110	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			MMO to consider.				
HRA111	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA110		Y		N/A
Stour and Orwell Estuaries Ramsar site as detailed in <b>section 8.13</b> of <b>Volume 1</b> of the Shadow HRA							
HRA112	<ul style="list-style-type: none"> <li>disturbance effects on species populations</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA113	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA110		Y		N/A
<p><b>Conclusions of Stage 2 of the Shadow HRA (information for Appropriate Assessment) for European sites with marine mammal qualifying interest features (detailed in the sections referred to below and summarised in the integrity matrices presented in Appendix D1, of Volume 1 of the Shadow HRA)</b></p> <p>Humber Estuary SAC as detailed in <b>section 9.4</b> of <b>Volume 1</b> of the Shadow HRA</p>							
HRA114	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA115	<ul style="list-style-type: none"> <li>underwater noise effects on species populations</li> </ul>	5.10	As for HRA114		Y		N/A
HRA116	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	As for HRA114		Y		N/A
HRA117	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA114		Y		N/A
Southern North Sea SAC as detailed in <b>section 9.5</b> of <b>Volume 1</b> of the Shadow HRA							
HRA118	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			2021 DCO change submission for MMO to consider.				
HRA119	<ul style="list-style-type: none"> <li>direct habitat loss and direct / indirect habitat fragmentation</li> </ul>	5.10	As for HRA118		Y		N/A
HRA120	<ul style="list-style-type: none"> <li>underwater noise effects on species populations</li> </ul>	5.10	As for HRA118		Y		N/A
HRA121	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	As for HRA118		Y		N/A
HRA122	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA118		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
The Wash and North Norfolk Coast SAC as detailed in <b>section 9.6</b> of <b>Volume 1</b> of the Shadow HRA							
HRA123	<ul style="list-style-type: none"> <li>water quality effects – marine environment</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA124	<ul style="list-style-type: none"> <li>underwater noise effects on species populations</li> </ul>	5.10	As for HRA123		Y		N/A
HRA125	<ul style="list-style-type: none"> <li>physical interaction between species and</li> </ul>	5.10	As for HRA123		Y		N/A



Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	project infrastructure						
HRA126	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA123		Y		N/A
<b>Conclusions of Stage 2 of the Shadow HRA (information for Appropriate Assessment) for European sites with migratory fish qualifying interest features (detailed in the sections referred to below and summarised in the integrity matrices presented in Appendix D1, of Volume 1 of the Shadow HRA)</b>							
Humber Estuary SAC as detailed in <b>section 10.3</b> of <b>Volume 1</b> of the Shadow HRA							
HRA127	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	MMO makes no specific comment. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			MMO to consider.				
HRA128	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA123		Y		N/A
Mainland European SACs as detailed in <b>section 10.5</b> of <b>Volume 1</b> of the Shadow HRA							
HRA129	<ul style="list-style-type: none"> <li>physical interaction between species and project infrastructure</li> </ul>	5.10	<p>Not agreed in potential mitigation offered by LVSE but agreed on assessment outcome.</p> <p>A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.</p>		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
HRA130	<ul style="list-style-type: none"> <li>assessment of in-combination effects</li> </ul>	5.10	As for HRA123		Y		N/A
<b>SHADOW HRA REPORT VOLUME 2 - ASSESSMENT OF ALTERNATIVE SOLUTIONS</b>							
HRA131	The five stage methodology as described in <b>section 2 of Volume 2</b>	5.10	MMO makes no comment in Relevant Representation. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A
HRA132	The need for the Sizewell C Project and the objectives as described in	5.10	As for HRA 132		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	section 3 of Volume 2						
HRA133	The assessed potential for harm (to the Minsmere-Walberswick SPA and Ramsar site) as described in <b>section 4 of Volume 2.</b>	5.10	As for HRA 132		Y		N/A
HRA134	The long list of potential alternative solutions as described in <b>section 5 of Volume 2.</b>	5.10	As for HRA 132		Y		N/A
HRA135	The assessment of legal, technical and financial feasibility of short-listed alternative solutions as described in	5.10	As for HRA 132		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	<b>section 6 of Volume 2.</b>						
HRA136	The assessment of whether any feasible alternative would have a lesser effect on the Minsmere-Walberswick SPA and Ramsar site as described in <b>section 7 of Volume 2.</b>	5.10	As for HRA 132		Y		N/A
<b>SHADOW HRA REPORT VOLUME 3 - STAGE 4: IMPERATIVE REASONS OF OVERRIDING PUBLIC INTEREST</b>							
HRA137	The case presented for imperative reasons of overriding public interest as set out in <b>Volume 3</b> of the Shadow HRA.	5.10	MMO makes no comment in Relevant Representation. Assume agreed. A sHRA Addendum was		Y		N/A

Ref.	Matter	Book ref.	SZC Co. Position	Marine Management Organisation Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			submitted with 2021 DCO change submission for MMO to consider.				
<b>SHADOW HRA REPORT VOLUME 4: COMPENSATORY MEASURES</b>							
HRA138	The assessment of the suitability of the proposed compensatory measures as described in <b>Volume 4</b> of the Shadow HRA.	5.10	MMO makes no comment in Relevant Representation. Assume agreed. A sHRA Addendum was submitted with 2021 DCO change submission for MMO to consider.		Y		N/A

**Table 2.8 Position of the Parties - SZC Co. and Marine Management Organisation on the Water Framework Directive (WFD) Assessment**

Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
<b>Methodology</b>							
WFD1-1	The methodology for the WFD compliance assessment as detailed in <b>Part 1 of the WFD Compliance Assessment.</b>	8.14	MMO specifically provided no separate comments on WFD within its Relevant Representations. WFD was discussed as appropriate in other comments. While some elements relevant to WFD are described, links to specific WFD elements/issues are not made. Assume agreed pending resolution of relevant	MMO note that the conclusions of the Water Framework Directive Compliance Assessment Report Addendum [AS-279] seem appropriate. MMO have no further comments on the Water Framework Directive Regulations Assessment at this time.	Y		N/A

Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
			comments in ES (Tables 2.1, 2.2 and 2.3). The 2021 DCO change submission includes a WFD adendum for consideration.				
<b>Main development site</b>							
WFD2-1	The screening assessment presented in <b>section 2.3</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-2	The scoping of impacts of project activities on water body quality elements presented in <b>section 2.4b</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A



Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
WFD2-3	The scoping of impacts of project activities on INNS presented in <b>section 2.4c)</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-4	The scoping of impacts of project activities on RBMP improvement or mitigation measures presented in <b>section 2.4d</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-5	The scoping of impacts of project activities on protected areas presented in <b>section 2.4e</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-6	The baseline for quality elements at risk for each	8.14	As for WFD1-1		Y		N/A

Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	water body presented in <b>section 2.5 of Part 2 of the WFD Compliance Assessment.</b>						
WFD2-7	The assessment of impacts resulting from initial site preparation presented in <b>section 2.5h of Part 2 of the WFD Compliance Assessment.</b>	8.14	As for WFD1-1		Y		N/A
WFD2-8	The assessment of impacts resulting from earthworks for platform development presented in <b>section 2.5i of Part 2 of the WFD Compliance Assessment.</b>	8.14	As for WFD1-1		Y		N/A
WFD2-9	The assessment of impacts resulting from the construction of marine structures presented in	8.14	As for WFD1-1		Y		N/A

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Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	<b>section 2.5j of Part 2 of the WFD Compliance Assessment.</b>						
WFD2-10	The assessment of impacts resulting from the discharge of foul, surface and any other water presented in <b>section 2.5k of Part 2 of the WFD Compliance Assessment.</b>	8.14	As for WFD1-1		Y		N/A
WFD2-11	The assessment of impacts resulting from the discharge of commissioning water via the CDO presented in <b>section 2.5l of Part 2 of the WFD Compliance Assessment.</b>	8.14	As for WFD1-1		Y		N/A
WFD2-12	The assessment of impacts resulting from the presence of the power	8.14	As for WFD1-1		Y		N/A

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Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	station presented in <b>section 2.5m of Part 2</b> of the <b>WFD Compliance Assessment</b> .						
WFD2-13	The assessment of impacts resulting from the presence of the permanent SSSI crossing presented in <b>section 2.5n of Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-14	The assessment of impacts resulting from the presence of marine structures presented in <b>section 2.5o of Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-15	The assessment of impacts resulting from the presence of coastal defence strutures	8.14	As for WFD1-1		Y		N/A

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Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	presented in <b>section 2.5p</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .						
WFD2-16	The assessment of impacts resulting from cooling water discharge presented in <b>section 2.5q</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-17	The assessment of impacts resulting from the cooling water system intake presented in <b>section 2.5r</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .	8.14	As for WFD1-1		Y		N/A
WFD2-18	The assessment of impacts resulting from the discharge of trade effluent from the FRR system	8.14	As for WFD1-1		Y		N/A

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SIZEWELL C PROJECT – STATEMENT OF COMMON GROUND  
MARINE MANAGEMENT ORGANISATION

**NOT PROTECTIVELY MARKED**

Ref.	Matter	Book ref.	Marine Management Organisation Position	SZC Co. Position	Potential the MMO position could be affected by DCO Changes? Yes or No.	Further Action / Additional Documentation	Agreed / Not Agreed / In Progress
	presented in <b>section 2.5s</b> of <b>Part 2</b> of the <b>WFD Compliance Assessment</b> .						

**NOT PROTECTIVELY MARKED**

## APPENDIX A: ENGAGEMENT ON THE SOCG

### A.1. Appendix Level 1

- A.1.1. The preparation of this SoCG has been informed by a programme of discussions between SZC Co. and the Marine Management Organisation following submission of the DCO application. The relevant meetings are summarised in **Table 2.2** and **Table 2.3**.

**Table A.1 SOCG meetings held between SZC Co. and Marine Management Organisation**

Date	Details of the Meeting
15 June 2020	Regular DCO Progress and SoCG Meetings
19 August 2020	
02 September 2020	
16 September 2020	
30 September 2020	
14 October 2020	
28 October 2020	
11 November 2020	
25 November 2020	
09 December 2020	
11 January 2021	
20 January 2021	
03 February 2021	
17 February 2021	
03 March 2021	
17 March 2021	
31 March 2021	
19 April 2021	
28 April 2021	
12 May 2021	
26 May 2021	

Date	Details of the Meeting
26 October 2020	SZC DCO Change Submission – BLF Options
30 November	Joint Defra SoCG Meeting

**Table A.2 Technical meetings held between SCZ Co. and Marine Management Organisation**

Date	Attendees	Details of the Meeting
23 September 2020	SZC Co Environment Agency ESC Natural England RSPB	<b>Marine Technical Forum – Coastal Processes</b> To discuss the Coastal Processes Monitoring and Mitigation Plan (CPMMP)
23 September 2020	SZC Co Environment Agency Natural England EIFCA	<b>Marine Technical Forum – Marine Ecology</b> To discuss fish assessments
14 October	MMO	Meeting to discuss MMO Section 56 Response on Marine Ecology
19 October 2020	MMO	Meeting to discuss MMO Section 56 Response on Coastal Processes
19 October 2020	MMO	Meeting to discuss MMO Section 56 Response on Marine Water Quality and Sediments
01 March 2021	SZC Co Environment Agency ESC RSPB	Marine Technical Forum – Coastal Geomorphology Discussion of the modelling for the enhanced BLF and temporary BLF



## APPENDIX B: SECTION 56 COMMENTS

Relevant Representation Comment	Applicant's Comments	MMO's comments
<b>1.1 Major Comments</b>  1.1.1 The MMO has major concerns relating to the arbitration process outlined in Part 7, Article 82, and the appeals process outlined in Schedule 23 of the DCO. Our concerns are highlighted in section 2.1.	Noted. Arbitration now removed from January 2021 draft DCO. See art 82(6) of the DCO	Resolved.
<b>1.1 Major Comments</b>  1.1.2 In addition, the MMO has concerns about the timeframes for submission of documents. We advise that a 6-month lead period (prior to the commencement of activities), would be more appropriate to allow sufficient time to review the submissions and resolve any issues; the submissions may require multiple rounds of consultation and the shorter the lead time, the higher risk that there will be delays to the Applicant's project delivery timeframe.	Noted. Timelines amended in January 2021 draft DCO DML. We have provided in relation to each submission under a DML condition that SZC Co must use reasonable endeavours to make the submission within 6 months (or in some cases 3 months or 6 weeks where we consider less time is required for MMO consideration) prior to the commencement of the relevant licensed activity.	Not resolved. MMO requests returns (method statements and plans) to be submitted to MMO at least 6 months prior to works being planned to start so that the applicant can best forecast the time required for the MMO's review and consultation on the document. Enabling MMO sufficient time to review a document will help to prevent any delays that could effect the project. This is a realistic time frame for MMO to sign off returns that the MMO advises you follow these to avoid project delays. Additionally, version 3 of the DML includes a "determination date after which the undertaker may submit an appeal for nondetermination". MMO should not have set determination periods in which to approve plans and protocols etc. This is for the MMO to approve the finer details before the works start, which the applicant can't provide during the application and

Relevant Representation Comment	Applicant's Comments	MMO's comments
		examination process, so it's necessary for us to have enough time to properly scrutinise those documents. How long that takes us will depend on factors such as the quality of the plans submitted in the first instance, the MMO resource available at the time these documents come in for approval, how much consultation is required, and how long any consultees need to respond in a meaningful way. MMO does not delay determinations without necessity. If MMO delay unduly then there are existing routes to challenge this via our internal complaints system or via judicial review. MMO don't set determination timescales in condition sign offs within stand alone marine licences and DMLs should be as consistent as possible with standalone licences.
<b>1.1 Major Comments</b>  1.1.3 The MMO has major concerns about the inclusion of Unexploded Ordnance (UXO) clearance works within the DCO and DML, and we propose that this should be removed and consented via a separate marine licence. This is explained in section 3.1	Noted. UXO now removed from January 2021 draft DCO/DML.	Resolved.
<b>1.1 Major Comments</b>  1.1.4 The MMO has concerns about the	Noted.	Concerns remain. See details within the MMO's full comments on the Harbour Powers.

Relevant Representation Comment	Applicant's Comments	MMO's comments
inclusion of harbour powers in Part 6 of the DCO and we recommend that the 'Harbour Powers' provisions are thoroughly reviewed by the PINS legal team. The MMO Harbour Orders Team is happy to offer further advice on this throughout the consenting process. This is detailed in section 2.2.		
<b>1.1 Major Comments</b>  1.1.5 The MMO agree with the approach taken in relation to equivalent adult value (EAV)s and stock areas. However, the MMO advises that more evidence should be provided to justify the assumptions on the beneficial effect of the low velocity side-entry (LVSE) design and to justify not installing an acoustic fish deterrent (AFD) system. Furthermore, it is likely that additional discussions will be required concerning the design and operation of the fish recovery and return (FRR) system, including monitoring of impingement and FRR survivability. As with other consented NNB projects, it is possible to make agreement on these matters a condition of the DCO and DML. Our reasoning for this is detailed in section 5.4.1.	Noted. See also Ref ID MMO 181, 223 and 226	Unresolved. The MMO supports the assessments on impacts to fish populations for the most part but there are still 2 areas where MMO consider further information should be supplied: <ul style="list-style-type: none"> <li>• further sensitivity analysis within Report SPP103 to examine concerning the effectiveness of the LVSE design and FRR system; and</li> <li>• additional evidence in relation to AFD options.</li> </ul> Further information on this is provided in our comments on the theme 'Supplementary Information on Fish Assessment' below.
<b>1.1 Major Comments</b>  1.1.6 The MMO notes that the coastal defence features will be positioned	Noted. Under discussion with MMO and ESC.	The hard coastal defence feature has been removed from the DML as it is above MHWS, this issue is resolved. However, a portion of the footprint of the soft coastal

Relevant Representation Comment	Applicant's Comments	MMO's comments
landward of current Mean High Water Springs (MHWS). As this is outside of the MMO's jurisdiction, the conditions in the DML relating to these works will not be enforceable by the MMO. These conditions will need to be secured elsewhere in the DCO so that they can be enforced by East Suffolk Council. See more details in paragraph 3.1.5.		defence feature is likely to be below MHWS. There are ongoing discussions with East Suffolk Council, MMO and the applicant to determine how the sCDF and CMMP should be placed in the DCO and DML.
<b>1.1 Major Comments</b>  1.1.7 The MMO is also concerned about the level of detail provided in the application documents. Throughout the application, particularly in the Habitats Regulation Assessment (HRA), the level of detail provided is lacking. This has made it difficult for the MMO to come to robust conclusions, and therefore uncertainty remains. We look forward to further details being provided by the Applicant ahead of examination to allow the MMO to have confidence in the examination.	Noted. See also Ref ID MMO 245-297	MMO's remaining comments on the HRA are detailed below under the topic 'Habitats Regulations Assessment'. However, MMO defers to Natural England advice regarding the overall conclusions of the shadow HRA and the information provided.
<b>1.1 Major Comments</b>  1.2.1 The Applicant should demonstrate that they have considered whether the project adheres to all the relevant marine plans and policies in the area. The MMO recommends that this is presented in a single, coherent document instead of a	Noted	Unresolved. No Marine Plan Policy Assessment has been provided. MMO requires this assessment from the Applicant to determine if the project is compliant with the relevant marine plans. Please advise that you discuss with MMO if you require further information on how this can be done.

Relevant Representation Comment	Applicant's Comments	MMO's comments
number of separate references throughout the submission. The relevant marine plan policies that should be met can be identified using the Explore Marine Plans tool and policy information on the following website: <a href="https://www.gov.uk/guidance/explore-marine-plans">https://www.gov.uk/guidance/explore-marine-plans</a>		
<b>1.2 Minor Comments</b>  2.1.1 In relation to Part 1, Article 2, 'Interpretations', the MMO advises that the Applicant should provide a definition for both 'onshore' and 'offshore'.	There does not seem any need for these two definitions. If the MMO considers these definitions are necessary, can you confirm why.	Not addressed. Clarification required on whether offshore means "12nm beyond" or offshore as in not on land? (DML has conditions that mentions offshore and so this should be defined- Condition 25 and 48.) Condition 25- "The undertaker must ensure that only treated wash water compliant with the EA Water Discharge Activity Permit may be discharged into the marine environment. Except for activities taking place offshore, concrete and cement mixing and washing areas should be contained and sited at least 10 metres from any watercourse or surface water drain to minimise the risk of runoff entering a watercourse." Also please clarify why offshore activities should not have the protection of this containment? Condition 48- "Cooling water intake and outake heads: 48.—(1) Development of Work Nos. 2A to 2J shall not commence until the following activity details have,

Relevant Representation Comment	Applicant's Comments	MMO's comments
		<p>following consultation by the undertaker with NE and the EA, been submitted to and approved by the MMO. The details shall approved by the MMO in respect of the relevant Work No. The details must include: (a) the location and design (size and shape) of the offshore intake and outfall heads"</p> <p>The MMO advise that the DCO incorporates all the definitions within its "Interpretation" (and that the DML includes all those relevant to the DML within it's own "Interpretation" section). Both "interpretation" sections should mirror each other (same definitions).</p>
<p><b>1.2 Minor Comments</b></p> <p>2.1.2 In relation to Part 1, Article 2, 'Interpretations', the MMO seeks further clarification on the definition of 'commence' within the DCO and DML. The definition in the DCO excludes operations consisting of '(a) site preparation and clearance works'. However, the MMO notes that under the Marine and Coastal Access Act 2009 (MCAA) some ground preparation works may be licensable (e.g. dredging). Consequently, the Applicant should clarify what marine works are excluded from the definition of commence.</p>	<p>The definition which applies to the DML is only the definition of 'commence' within the DML. SZC Co is confident that all licensable activities are included and is comfortable with definition. It is not subject to the exceptions set out in article 2 of Part 1 of the DCO.</p>	<p>Not addressed. Capital dredging is included in the works and so it would be useful to ensure that it is not excluded from definition of "commence". Does it also include the phase of a licensed activity?</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p><b>2. DCO</b></p> <p>2.1.3 In relation to Part 2 Article 4 (1)(a), the MMO notes that 'the undertaker may deviate vertically to any extent found necessary or convenient'. This allows for structures to move in the plan position which is a critical issue for the hard Coastal Defence Feature (hCDF), the final design of which is not complete. Additionally, there is no detail about whether there are any horizontal limits of deviation. The MMO advises that the Applicant provides information on the limits of deviation dimensions applicable to the plan position of the hCDF and any other marine structures to allow for further consideration potential impacts.</p>	<p>The only horizontal limit of deviation is the limits shown on the Work Plans in respect of the relevant Work No. We acknowledge that the horizontal (eastward) extent of the HCDF is of particular significance and relates directly to the impact assessment. For further discussion with MMO and ESC.</p>	<p>Not addressed. Explanatory memorandum states the horizontal limits within which all works may be situated is controlled by the Works Plans. The hCDF is no longer a topic for MMO (as it is above MHWS and so not within our jurisdiction) but this allows all other marine works to deviate vertically to any extent found necessary or convenient. The MMO outline that there should be maximum limits on horizontal and vertical deviations. As discussed within the meeting of the 01/03/2021 between the applicant and the MMO, these can be the "worst-case" scenarios.</p>
<p>2.1.4 In relation to Part 7, Article 82, 'Arbitration', the MMO strongly disputes the requirement for an arbitrator for matters under which the MMO are the enforcing body for its statutory functions via the DML. The MMO position is that any matter in relation to the DMLs should not be subject to arbitration. This is for the following reasons;</p> <p>a) The MMO's position is that the Applicant should rely on judicial review to challenge any decision of the MMO. The private nature of the arbitration process does not</p>	<p>Noted. Arbitration now removed from January 2021 draft DCO/DML. See article 82(6).</p>	<p>Resolved.</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>align with the public functions and duties of the MMO. The removal of the MMO decision-making function, and its placement into the hands of a private arbitration process, is inconsistent with the MMO legal function, powers and responsibilities, which was never intended by Parliament in enacting the Planning Act 2008 or MCAA 2009.</p> <p>b) The MMO also consider that arbitration would not be consistent with p.4 of Annex B of the PINS Guidance Note 11, which states that "the MMO will seek to ensure wherever possible that any deemed licence is generally consistent with those issued independently by the MMO". Inclusion of a different mechanism for determination of disputes in respect of DMLs would not be consistent with Marine Licences issued independently by the MMO.</p> <p>c) It is the MMO's position that the scale and importance of Nationally Significant Infrastructure Projects (NSIPs) mean that sufficient time is required to ensure a scientifically robust judgement is made. Leaving such decisions to a private third party is not appropriate, particularly when imposing an arbitrary time period.</p> <p>d) The offshore and onshore elements of this project are complex and therefore require complex decisions. Such decisions</p>		



Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>should be made by the public body tasked with doing so, not a private third party which are not subject to judicial review or the same statutory requirements as the MMO.</p> <p>e) The arbitration process would remove both parties from the right to appeal; removing the appeals route for the MMO against the decisions of an arbitrator is extremely concerning to the MMO.</p> <p>f) It is also the MMO's position that providing for disagreements to be resolved by arbitration (in private) sits uneasily with the general presumption regarding transparency and public participation in environmental decision making.</p> <p>g) The MMO considers that the practical result of allowing the arbitration process to expressly apply to the MMOs decisions would be establishing a new procedure and would replace the review of the MMOs decision making on conventional public law grounds (via the process of judicial review), for discharge of conditions under an expressly granted licence, with a merits review undertaken by an arbitrator.</p> <p>h) The MMO draws your attention to the clear and well-established principle that the Courts will be very slow to conclude that an "expert and experienced decision-maker</p>		

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>assigned the task by statute has reached a perverse scientific conclusion": Mott v Environment Agency [2016] 1 W.L.R. 4338 (CA). In light of this, the MMOs view is that it would require clear and compelling evidence as to why it is necessary and appropriate (and/or what had been intended by Parliament) to conclude that that heightened level of discretion given to decisions of a statutory body in the technical/environmental field be displaced by a decision by a private third party arbitrator.</p> <p>i) To entrust the final decision in the event of a dispute to an arbitrator, who is not susceptible to the same public scrutiny (not just by the MMO and Applicant but affected members of the public) or appeal is in the MMO's opinion, inconsistent with the objectives of the 2008 Planning Act and MCAA.</p> <p>The MMO therefore suggest that this Article is amended to include the following proposed wording:</p> <p><i>'(6) Any matter for which the consent or approval of the Secretary of State or the Marine Management Organisation is required under any provision of this Order shall not be subject to arbitration.'</i></p> <p>This is in line with the recently consented Norfolk Vanguard project where it is</p>		

Relevant Representation Comment	Applicant's Comments	MMO's comments
explicitly stated in the DML that the MMO shall not be subject to arbitration.		
2.1.5 In addition to this, the MMO notes Article 83 'Procedure in relation to certain approvals etc.', and Schedule 23 'Procedure for approvals, consents and appeals' which outline timeframes for decision making by discharging authorities. The MMO should not be bound by these timeframes which conflict with timeframes detailed in the DML, and this should be made explicit in these sections of the DCO.	The procedure for appeals in Schedule 23 was never intended to cover the DML. However, we consider it is necessary and appropriate for there to be an appeal mechanism relating to the discharge of DML conditions for a nationally significant piece of infrastructure like Sizewell C. we have therefore added a new schedule (Schedule 20A) to the January draft DCO which provides an appeal mechanism to the discharge of marine licence conditions.	Not resolved. The modified appeals process has now been added to Schedule 20A. Appeals are already available to the Applicant in the form of an escalated internal procedure and judicial review (JR), and therefore including any additional appeal mechanism for the MMO within the DCO and DML is unnecessary. The Marine Licensing (Licence Application Appeals) Regulations 2011 apply a statutory appeal process to the decisions that the MMO makes regarding whether to grant or refuse a licence or conditions which are to be applied to the licence. However, they do not include an appeal process to any decisions the MMO is required to give in response to an application to discharge any conditions of a marine licence issued directly by us. Therefore, if the DCO were to be granted with the proposed appeal process included, this would not be an appeal procedure broadly consistent with the existing statutory processes. This amendment would be introducing and making available to this specific Applicant, a new and enhanced appeal process which is not available to other marine licence holders, which would create an unlevel playing field across the regulated

Relevant Representation Comment	Applicant's Comments	MMO's comments
		community. The MMO has explained in our Relevant Representation [RR-0744] that these proposals go against the statutory functions laid out by parliament. Previous comments within RR-0744 on the appeals route remain.
2.1.6 Furthermore, the MMO does not agree with the appeals process outlined in Schedule 23, Article 3. This section proposes changes to the Marine Licensing (Licence Application Appeals) Regulations 2011 (Appeal Regulations). The MMO has major concerns with this approach highlighted in comments 2.1.7 to 2.1.14.	See comment above.	See comment above on MMO-13.
2.1.7 The MMO is subject to an appeal process in respect of specific aspects of marine licences granted under Part 4 MCAA Section 73 which provides an appeal process for Applicants of marine licences through the Appeals Regulations. This appeal process is for an Applicant to appeal a refusal of a marine licence or the inclusion of conditions within a licence. 2.1.8 If the Applicant wants requires some form of mechanism to be available to appeal in the event that the MMO either fails to make a determination within an appropriate time period or makes a decision to refuse to approve the documentation, this is already available to the Applicant in the form of an escalated	Judicial review does not provide an equivalent or appropriate remedy where there is a delay or refusal of a submission for approval under a DML conditions. Judicial reviews can only challenge decisions on limited procedural grounds (irrationality, ultra vires or procedural unfairness). In contrast, an appeal would consider the merits of the material submitted for approval and refused or not determined. The drafting we have provided in the revised DML conditions and Schedule 20A, clarifies the time period after which it is open to the undertaker to appeal for non-determination. This gives the undertaker more certainty, which they would not have if faced with having to	The current mechanism the applicants have available would be to write to the MMO in relation to their application to discharge any conditions of a licence and require the MMO to make a determination by a specific date. Should the MMO fail to make the decision then the applicant would be able to judicially review that failure to make a decision. If the MMO were to make the determination, but decided to refuse to approve the documents, then again the applicant would be able to challenge that refusal via judicial review.

Relevant Representation Comment	Applicant's Comments	MMO's comments
internal procedure and judicial review (JR), and therefore including any additional appeal mechanism for the MMO in the order is simply unnecessary.	argue through the courts via a judicial review that any delay in MMO determining a discharge application was so long as to meet the legal tests for a judicial review.	
<p>2.1.9 The MMO believes this amendment to the appeals process constitutes a misunderstanding of when the appeal regulations apply. The 2011 regulations apply a statutory appeal process to the decisions the MMO takes regarding whether to grant or refuse a licence or conditions which are to be applied to the licence. However, they do not include an appeal process to any decisions the MMO is required to give in response to an application to discharge any conditions of a marine licence issued directly by us. Therefore, if the DCO were to be granted with the proposed appeal process included, this would not be an appeal procedure broadly consistent with the existing statutory processes. This amendment would be introducing and making available to this specific Applicant a new and enhanced appeal process which is not available to other marine licence holders.</p> <p>2.1.10 This is problematic because it would lead to a clear disparity between those licence holders who obtained their marine licence directly from the MMO and those</p>	We consider it to be appropriate for an NSIP (and an NSIP in particular of the size and national importance of Sizewell) that there is an appeal process in place for the discharge of conditions, even if such an appeal mechanism does not exist for marine licences granted outside of a DCO.	The MMO is an open and transparent organisation that actively engages with and maintains excellent working relationships with industry and those it regulates. The MMO discharges its statutory responsibilities in a manner which is both timely and robust in order to fulfil the public functions vested in it by Parliament. The scale and complexity of an Nationally Significant Infrastructure Projects creates no exception in this regard and indeed it follows that where decisions are required to be made, or approvals given, in relation to these developments of significant public interest only those bodies appointed by Parliament should carry the weight of that responsibility. Since its inception the MMO has undertaken licensing functions on over 130 DCOs comprising some of the largest and most complex operations globally. The MMO is not aware of an occasion whereby any dispute which has arisen in relation to the discharge of a condition under a DML has failed to be resolved satisfactorily between the MMO and the applicant, without any recourse to an 'appeal' mechanism.

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>who obtained their marine licence via the DCO process. This would lead to an inconsistent playing field across the regulated community. Had parliament intended the appeal process to extend to these decisions, whether in relation to NSIPs or the marine licence granted directly by the MMO, then the wording of the Appeal Regulations would have been drafted differently.</p>		<p>The MMO notes the position on Norfolk Vanguard Offshore Wind Farm DCO with the ExA recommendation on Schedules 9 to 12, Part 5 – procedure for appeals concluding in para 9.4.42:</p> <p>"There is no substantive evidence of any potential delays to support an adaptation to existing procedures to address such perceived deficiencies. To do so would place this particular Applicant in a different position to other licence holders."</p> <p>Similarly, the Hornsea Three Offshore Wind Farm ExA Recommendation report states in 'Alternative dispute resolution methods in relation to decisions of the MMO under conditions of the DMLs' section in paras 20.5.27 – 20.5.29:</p> <p>"We agree with the MMO on this point. The process set out in the Marine Licensing (Licence Application Appeals) Regulations 2011 does not cover appeals against decisions relating to conditions. Whilst it would be possible to amend those regulations under PA2008, the result would be to create a DML which would be different to other marine licences granted by the MMO. We recommend that the Applicant's alternative drafting in Articles 38(4) and 38(5) is not included in the DCO.</p> <p>(...)</p> <p>We have commented above that the scale</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
		<p>and complexity of the matters to be approved under the DMLs is a strong indicator that those matters should be determined by the appropriate statutory body (the MMO). In our view an approach whereby matters of this magnitude would be deemed to be approved as a result of a time period being exceeded would be wholly inappropriate. Notwithstanding the exclusion of European sites, this approach would pose unacceptable risks to the marine environment and navigational safety. We recommend that the Applicant's alternative drafting is not included in the DCO."</p> <p>There is no compelling evidence as to why the applicant in the case of Sizewell C should be an exception to the well-established rules and treated differently to any other marine licence holder.</p>
2.1.11 In addition, the effect of the proposed change, in this case, would be to replace the review of the MMO decision making on conventional public law grounds (via the process of JR), for discharge of conditions under an expressly granted licence, with a merits review by the Secretary of State (SoS). This is a fundamental departure from what Parliament intended, and the MMO can see no justification for such a	The Planning Act 2008 allows for DCOs to modify the application of legislation, and we consider that the ability to appeal the refusal or non-determination of a condition discharge is justified for an NSIP of this scale and importance, given the potential impact on programme if no such mechanism is available. Judicial review is in no way an equivalent solution/remedy.	See comments above for MMO-16.

Relevant Representation Comment	Applicant's Comments	MMO's comments
major change particularly where the purpose of the deemed licence regime under the Planning Act 2008 is essentially to remove the need for a separate application for a licence alongside or following the making of the Order and not to fundamentally change the regulatory regime that applies.		
<p>2.1.12 The MMO notes that the Planning Act 2008 which set out the regime for DCOs does not have any 'statutory' appeals process either. It works on the basis that the Applicant and those with an interest in the application work with the Examining Authority to agree the terms of the order, but it is ultimately for the SoS to decide on its terms. The way to appeal against the decisions of the SoS to grant the order as made, or refuse the order, is provided for in the Act through the JR process and not by way of an appeal to PINS or to a tribunal.</p> <p>2.1.13 The MMO requests the removal of the appeals process stipulated in Schedule 23 of the DML as the MMO considers it is wholly inappropriate for the DCO to replace the existing appeals process (JR) with a modified version of the appeals route set out in the 2011 regulations for the reasons already set out above.</p>	See responses above.	Our Relevant Representation [RR-0744] comments remain.



Relevant Representation Comment	Applicant's Comments	MMO's comments
2.1.14 The MMO would like to highlight that there is a current mechanism available to the Applicant should the MMO fail to make a determination within what the Applicant considers to be a reasonable timescale. The Applicant would write to the MMO explaining this and requiring the MMO to make a determination by a specific date. Should the MMO fail to make the decision then the Applicant would be able to judicially review that failure to make a decision. If the MMO were to make the determination, but decided to refuse to approve the documents, the Applicant would again be able to challenge that refusal through JR. This provides a degree of certainty and the Applicant can already be confident of a reliable and consistent approval process.		
2.1.15 Part 7, Article 86, 'Marine enforcement authority', states that the MMO will be the relevant local planning authority (LPA) for land seaward of mean low water springs. However, our jurisdiction actually covers the area seaward of MHWS (as defined in Section 42 of the MCAA 2009).	Updated in DCO draft (article 86). However, jurisdiction is subject to ongoing discussions between SZC, ESC and MMO.	This section now states: "Marine enforcement authority 86. For the purposes of section 173 of the 2008 Act, the Marine Management Organisation will be the relevant local planning authority in respect of land seaward of the mean low high water springs and the area within the limits of deviation for Work No. 1A(m) (PBLF), Work No. 1A(bb) (tBLF) and Work No. 1A(n) (SCDF)." We confirm that there are ongoing discussions between the applicant,

Relevant Representation Comment	Applicant's Comments	MMO's comments
		ESC and MMO. The MMO requests clarity on the limits of deviation.
2.1.16 In relation to Schedule 1 'Authorised Development', the final DCO/DML authorised development should be cross referenceable with the project description and final Environmental Impact Assessment (EIA). The DCO/DML authorised development should be clearly linked to the 'Worst Case Scenario' as outlined within the EIA and it should be clear that the works can be built within the scope of the ES.	Noted; for discussion with MMO and to be clarified in revised draft DCO/DML	Our Relevant Representation [RR-0744] comments remain. The worst case scenarios have not been stated for all works. Rock protection (anti-scour protection) and disposal should be listed in "other associated development", as currently not listed here. Schedule 1 is set out in different sections. It would be useful to MMO if this was split this into below MHWS (mean high water springs), intertidal, and above MHWS, so that it is clearer what works are relevant to different authorities.
2.1.17 In relation to Schedule 1, Part 2 'Other Associated Development', the MMO is concerned about the lack of detail provided here for any marine works. For example, '(g) in connection with the marine works, dredging and the provision of buoys, beacons, fenders and other navigational warning or ship impact protection works;'. All dimensions should be clarified, and a 'Worst Case Scenario' identified if the dimensions are not known exactly at this point.	All licensable activities are included in the DML and have been assessed by the ES and appropriate conditions included in the DML. Any other marine works will remain subject to the requirements for marine licencing by the MMO under the Marine and Coastal Access Act 2009.	Not addressed, our Relevant Representation [RR-0744] comments remain. There is also no mention of the piling works for the BLFs, it should state here that BLFs will be fixed to the seabed via piles. Furthermore, more detail is required for marine works.
2.1.18 The MMO would expect key mitigation documents to be captured within Schedule 2, 'Requirements', for example the Environmental Management Plan. This	The Requirements have been updated in the January version of the draft DCO, and will be subject to ongoing engagement. The drafting of the DML conditions has been	Requirement 3 says "Project wide: Archaeology and Peat" however, this is just in relation to the onshore/ terrestrial project WSI. Therefore, this should state this is just

Relevant Representation Comment	Applicant's Comments	MMO's comments
mitigation must be agreed by the appropriate bodies, and we must be confident that the mitigation will be effective. We would also expect the timing requirements to be provided in the final DCO/DML.	revised to refer to timings for submission of material for MMO approval (on a reasonable endeavours basis).	an onshore/ terrestrial WSI. Clarification is required as there is a separate offshore/ marine WSI required under DML conditions. These different WSIs should be defined within the interpretations. We note that the CMMP is covered but says will be discharged by MMO, to note, ESC may need to also approve requirements if includes works within their remit and not in MMOs (mainly the monitoring and mitigation for the Coastal Defence Features).
<p>2.2.1 The MMO would like to highlight to PINS that the creation of Harbour Orders is a complex process and the timescales for approval can often take a number of years, depending on the complexity of the proposals. The process involves lengthy discussions between the applicant, the MMO Harbour Orders Team and the MMO Legal Team. The process also includes a final legal check by lawyers at the Department for Transport (DfT) before the Harbour Order is laid before Parliament.</p> <p>2.2.2 As the Applicant wishes to include powers that would normally be created in a Harbour Order within this DCO, the MMO recommends that the 'Harbour Powers' provisions are thoroughly reviewed by the PINS legal team. We appreciate that Harbour Orders are not a commonly</p>	Noted.	<p>MMO welcomes that a SoCG with Department for Transport be undertaken.</p> <p>The application of paragraph 32 (Explanatory Memorandum ("EM")) is not clear. We would expect "changing the powers of a harbour authority" to more closely relate to Section 14 of the Harbours Act 1964 ("HA 1964"), under Schedule 2 (objects for which a Harbour Revision Order ("HRO") can be achieved) when a HRO is sought to vary or abolish powers and duties of an existing harbour authority. As we understand the position, you are seeking an Harbour Empowerment Order ("HEO") to create a harbour authority, and therefore are not changing existing powers. We note that the EM has a footnote entry "3" in 8.2 however, there is no</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>reviewed area of law, therefore the MMO Harbour Orders Team are happy to offer further advice throughout the consenting process.</p> <p>2.2.3 Additionally, as Harbour Orders are a complex area where review periods can be lengthy, the MMO reserves the right to make additional comments on the provisions in the future.</p>		<p>corresponding footnote at the bottom of this page, which may or may not clarify the matter.</p>
<p>2.2.4 The MMO has reviewed the provisions to create a new harbour authority as if they were in a separate Harbour Order, as this is the legislation the MMO is familiar with when introducing new harbour legislation. Consequently, although comments are outlined below, it will be up to PINS to consider their relevance to the DCO process.</p> <p>2.2.5 The MMO welcomes the addition of Part 6 'Harbour Powers' to the DCO to make it clear that the DCO authorises the creation of a new harbour authority.</p>	Noted.	<p>Although the decision on the harbour powers sought in the DCO will be a matter for PINS, to best support your application, it would be helpful if you could clarify which objects in Section 16 to the HA 1964 are to be achieved and how these objects meet the 'tests' or requirements in S16(5) of the HA 1964.</p> <p>Additionally please clarify:</p> <ul style="list-style-type: none"> <li>- if you seek the requisite powers to be conferred as a harbour authority – or is it intended that these be conferred on a designated person or a body corporate?</li> <li>- what constitutes the "harbour" over which the newly constituted harbour authority will exercise jurisdiction. – eg clarify the specific works which relate to the construction of a "harbour".</li> <li>- Is the "harbour" to be temporary or permanent? Is it proposed that any temporary structures be dismantled after completion of the project?</li> </ul>

Relevant Representation Comment	Applicant's Comments	MMO's comments
		- It is noted that the expression "marine works" is used throughout Part 6 of the DCO and is defined in the interpretation section as the marine works described in Schedule 1. However, in Section 57 (interpretation) of the HA 1964, "marine work" is defined as a "harbour or boatslip in Scotland" other DCOs, and recently made Harbour Orders use the expression "tidal works" which means "so much of any work authorised by this order as is on, under, or over tidal lands below the level of high water". It would assist us to understand the reason for the departure from the use of "tidal works" in Part 6 of the DCO.
2.2.6 The MMO notes that the draft DCO appears to create new offences. The MMO has received guidance from the Ministry of Justice (MoJ) that when considering harbour orders which create new offences, a Justice Impact Test must be carried out and submitted to the MoJ for their approval. As the Justice Impact Test is a requirement for Harbour Orders, the MoJ may require this to be done for a DCO that creates new offences. The MMO suggests that PINS contact the MoJ to discuss whether a Justice Impact Test will be required for the new offences within this DCO.	Noted.	MMO will wait to hear if this has been discussed with MoJ. Our Relevant Representation [RR-0744] comments remain.
2.2.7 As previously advised to the Applicant, DfT will need to be consulted on	Consultation held 11 September 2021. Further consultation to be undertaken in	MMO welcomes that a SoCG with DfT will be produced. Our comments remain

Relevant Representation Comment	Applicant's Comments	MMO's comments
this application. This is because DfT are responsible for Port Policy and other areas which harbour legislation relates to, for example they are the Secretary of State which confirms harbour byelaws. Other bodies which the MMO advise should be consulted in relation to the harbour powers include the UK Major Ports Group, Chamber of Shipping and the British Ports Association.	2021, particularly with DfT, Trinity House and MCA.	outstanding in relation to consultation with other bodies.
2.2.8 The MMO also encourages the Applicant to consult with local recreational and fishing vessels to ensure that they are aware of the proposals. Additionally, as non-compliance with a byelaw or direction could be an offence, the Applicant should notify local users of any changes to the byelaws and general directions during the lifetime of the harbour authority, so these users can be properly informed. Keeping copies of directions and byelaws online will assist further here, see further information regarding this in our comment 2.2.18 below.	Consultation planned for early 2021	Noted. Our comments remain outstanding regarding advice on copies of directions and byelaws to be made available online.
2.2.9 In relation to Article 46, 'Incorporation of the Harbours, Docks and Piers Clauses Act 1847', the MMO notes that paragraph 8.6 of the Explanatory Memorandum states that: 'Sections 14 -19, 25, 27, 29-34, 36, 40-46, 48 - 50, 81 and 82 relate to the calculation,	The charges which may be levied under Article 72 would fall within the broad definition of "rates" in the 1847 Act. However, we consider that the power in Article 72 is narrow in scope and envisaged to be used in very limited circumstances where the harbour authority is required to	MMO to review the explanation in the Explanatory Memorandum before responding. Please send to MMO once this has been updated.

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>charging and enforcement of rates by an undertaker on vessels and members of the public. As the undertaker will not be collecting rates, these sections are irrelevant.'</p> <p>The MMO suggests the Applicant should check the sections listed as not all of them appear to be in relation to rates. For example, section 16 is in relation to lifeboats.</p>	<p>act in urgent or emergency circumstances resulting from third party vessels. Examples will be set out in the Explanatory Memorandum to provide further explanation as to why provisions of 1847 relating to rates are to be excluded from the DCO.</p>	
<p>2.2.10 Additionally, in relation to Article 46, the applicant has stated that they will not be collecting rates. The MMO notes that in the 1847 Act, which is being incorporated into this DCO, 'rates' are defined as:</p> <p>'The word "rate" shall mean any rate or duty or other payment in the nature thereof payable under the special Act'</p> <p>With 'special Act' being incorporated into the DCO as meaning the Sizewell C DCO. However, Article 72 of the DCO states that charges other than ship, passenger and goods dues may be made. Ship, passenger and goods dues is defined in the Harbours Act 1964 as:</p> <p>"ship, passenger and goods dues" means, in relation to a harbour, charges (other than any eligible by virtue of section 29 of this Act) of any of the following kinds, namely,</p> <p>—</p> <p>(a) charges in respect of any ship for</p>	<p>As above.</p>	<p>MMO to review the explanation in the Explanatory Memorandum before responding. Please send to MMO once this has been updated.</p> <p>In paragraph (2) a full stop required at the end after "removed". When referring to a provision in another Act (in this instance the 1847 Act), in the description or heading in brackets, it is usual practice in drafting harbour orders that the first word is set out in lower case letters). Advise this is checked throughout the instrument.</p> <p>Also in paragraph (2) on second line, and where it occurs through the remainder of Article 46, consider changing "must have effect" for "shall have effect".</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>entering, using or leaving the harbour, including charges made on the ship in respect of marking or lighting the harbour;</p> <p>(b)charges for any passengers embarking or disembarking at the harbour (but not including charges in respect of any services rendered or facilities provided for them); and</p> <p>(c)charges in respect of goods brought into, taken out of, or carried through the harbour by ship (but not including charges in respect of work performed, services rendered or facilities provided in respect of goods so brought, taken or carried);'</p> <p>The Explanatory Memorandum states that Article 72 enables the undertaker to charge for services performed by them in the exercise and performance of its statutory duties as harbour authority. The MMO seeks clarity from the Applicant on why it is considered that 'rates' will not be collected but charges other than ship, passenger and goods dues may be made.</p>		
<p>2.2.11 Article 46 (9)(g) states that the definition of "vessel" in Article 49(1) is substituted for the definition in section 3 of the 1847 Act (Interpretation). The MMO is not clear which Article 49(1) this refers to, and which Act Article 49(1) refers to. Article 49 of the Harbours, Docks and Piers Clauses Act 1847 is in relation to 'rates'</p>	<p>This has been corrected to refer to article 2(1) of the DCO</p>	<p>We query the requirement for the inclusion in Article 46(9) of: "All fines and forfeitures recoverable under the provisions of the 1847 Act as incorporated within this Order may be recovered summarily". The fines recoverable under the 1847 Act are all specified in the body of the provisions as level 3 or 4 fines on "summary conviction".</p>



Relevant Representation Comment	Applicant's Comments	MMO's comments
and the applicant has stated above that rates are not to be collected, whereas Article 49 of the DCO is in relation to agreements entered into by the undertaker and does not concern vessels. The MMO requests that this is clarified.		Also, Clarification is required as to who is intended to be appointed as the harbour authority, and therefore become the body responsible for the harbour? Currently the “undertaker” appears in the interpretation section at the start of the DCO: “undertaker” means NNB Generation Company (SZC) Limited (company number 09284825) or any person who has the benefit of this Order in accordance with articles 8 (Benefit of Order) and 9 (Consent to transfer benefit of Order).
2.2.12 In relation to Article 50 ‘Application of Pilotage Act 1987’ to become a Competent Harbour Authority (CHA), the MMO notes that a CHA is in relation to Pilotage and is not the same as a Statutory Harbour Authority (SHA). The MMO does not process the creation of CHAs; the method to become one is under separate legislation from the Harbours Act 1964. DfT would be the body responsible for creating CHAs. Therefore, the MMO advise that PINS should discuss this with DfT.	The Secretary of State will discuss with the relevant bodies in their decision making.	The MMO notes that this is ongoing, and discussions are to be had.
2.2.13 Additionally, the Applicant should include a justification of the powers that allow a CHA to be created within the DCO Explanatory Memorandum, just as they have justified the inclusion of the Harbour Order in paragraphs 8.2 and 8.3. In 8.22 of	The Planning Act 2008 allows for DCOs to modify the application of legislation, and we consider that the ability to create a CHA within a DCO is justified for an NSIP of this scale and importance.	Further information required. See MMO-23 and MMO-24 above

Relevant Representation Comment	Applicant's Comments	MMO's comments
the Explanatory Memorandum, the applicant quoted previous orders where pilotage powers have been given, but they are all specific pilotage orders from a separate legal process to the creation of a DCO, apart from the Wylfa DCO. Moreover, the Wylfa DCO has not yet been confirmed, and so the MMO does not believe that a 'precedent' has been firmly set. The MMO therefore suggest that PINS should undertake a legal review to confirm if it is possible to create a CHA within a DCO.		
2.2.14 Article 51 (1) refers to 'Schedule 21 (Limits of harbour)'. This appears to be a typographical error as Schedule 21 is entitled 'Removal of important hedgerows'. It appears this article should refer to Schedule 19 instead, which is entitled 'Limits of harbour'.	Noted; amended in January 2021 submitted draft DCO	Noted. Additionally, the limits of the harbour should be very clear. The instrument should stipulate over which area the newly constituted harbour authority will have jurisdiction to enable the harbour authority to exercise their powers of general direction and byelaws). Please clarify where this has been made clear.
2.2.15 In relation to Article 55, the MMO request further information about the mitigation proposed in relation to the 'Power to Dredge.' It is not clear what process will be followed to ensure that the relevant Statutory Nature Conservation Body are able to view any updated plans and methodologies related to this.	Exercising this general power to dredge would require a marine licence (since not covered by the DML), and therefore it operates to give statutory authority to the undertaker to dredge but not the ability to do so without a further application (for a marine licence) which would need its own assessment and consideration as appropriate. This seems therefore the appropriate safeguard.	The MMO would like to clarify, for information, that a Harbour Authority wishing to undertake dredging in line with their powers to dredge, qualifies as an exempt activity, and as such marine licence would not need to be sought. However, the MMO notes that the dredging activities are already covered within the DML, and that the request for these powers within Part 6 of the DCO is a duplication.

Relevant Representation Comment	Applicant's Comments	MMO's comments
2.2.16 The MMO is not clear why 'Rights to lease etc.' is numbered as Article 62(A) rather than Article 62.	This was an error and has been corrected in the January 2021 draft DCO	Resolved.
2.2.17 In relation to Article 64 (1) 'Confirmation of byelaws', the MMO notes that the harbour byelaws will be confirmed by the Secretary of State for Business, Energy and Industrial Strategy, however harbour byelaws are usually confirmed by the Secretary of State for DfT. Therefore, the MMO advises that DfT should be consulted prior to the confirmation of these byelaws and PINS should undertake a legal review to ensure that this is the correct method.	Noted.	The MMO will wait to view SoCG with DfT.
2.2.18 In relation to Article 64 (2) 'Confirmation of byelaws', the MMO recommends that the notice is also published online on a website managed by the harbour authority/ the Applicant to allow for public inspection; usually harbour authorities have their own website where this would be done. Although the MMO appreciates that this case is different as the harbour created from this DCO will not be used in the same way as a typical harbour, the development will likely have a website where this could be published. Likewise, for Article 64 (4) and 64 (9), the MMO advises that copies of the byelaws are published online.	Drafting added to article 64 to provide for online publication.	Noted. The MMO advise that the website where this will be published should be added as a footnote to the DCO. MMO notes article 64 (5) "The undertaker must supply a copy of the byelaws or of part of the byelaws to a person who applies for it on payment of a reasonable charge." and requests clarity as to whether it is necessary to charge for them?

Relevant Representation Comment	Applicant's Comments	MMO's comments
As a minor point, the MMO also suggests that the periods of time referred to in the Article are defined in a clearer manner such as “within at least 28 days” instead of “at least one month”.		
2.2.19 The MMO notes that Article 65 ‘General directions to vessels’ includes approaches to the harbour and channels leading to harbour. The MMO advises that it may not be appropriate for general directions to be given outside of the harbour jurisdiction.	There is precedent for such drafting, including in the Hinkley Point C DCO. However, we are happy to discuss.	Further discussions to be had. We query the inclusion within 65(1)(a) “routes or channels in the harbour and the approaches to the harbour” as general directions can be used only within the specified limits over which the harbour authority is to have jurisdiction. The MMO requests clarity as to whether this inclusion is outside of that area?
2.2.20 In relation to Article 65 (3) the MMO notes that there is a procedure which has been agreed with the Royal Yachting Association and Chamber of Shipping with regard to general directions. The procedure has appeared in previous harbour orders and includes a consultation process and a specific arbitration process. An example of this is in the Newhaven Harbour Revision Order 2016 (UK Government, 2016).	This consultation process is not required and is considered inappropriate in the case of the Sizewell C harbour jurisdiction which is to regulate and protect the movements of the large vessels engaged in the construction of this large-scale, nationally significant project.	The MMO advises that these parties are consulted regarding the response/ approach proposed by the applicant.
2.2.21 In relation to Article 66 ‘Publication of general directions’, the MMO notes that the general directions will be publicised in Lloyds List or another shipping newspaper, whereas the byelaws will be publicised in a local newspaper. There are some similarities in the use of byelaws and	Drafting added to provide for online publication. We are happy to discuss making article 64 and 66 consistent in terms of other publication. The approach taken was preceded by Hinkley Point C DCO	See Newport, Isle of Wight HRO 2021/139 for an example of a recently made order containing provisions relating to the publication of general directions. The provisions provide clear time periods as to when the notices should be displayed, require the notice to be published on the

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>general directions (e.g. byelaws in this case can be used to regulate the movement of vessels in the harbour, as can general directions), therefore the MMO seek clarity on the justification for publicising byelaws and general directions differently. The notices should ensure that all those who may be impacted by the introduction of a byelaw/direction are informed. The MMO also recommends that the notice and copies of the direction are made available online (see comment 2.2.18 above).</p>		<p>harbour authority's website and in newspapers circulating in the locality of the harbour – as they are more likely to be seen by persons local to the harbour (we query the inclusion of Lloyds List?). The addition of a requirement to place notices in the harbour is to ensure that harbour users are aware of the general direction, as non-compliance could lead to a criminal conviction.</p> <p>We also query 66(1), why it is necessary for a copy of the general direction to be bought? This is not a provision commonly seen in harbour orders in relation to general directions – a paper copy is usually made available for inspection at the harbour master's office or the harbour authority's principal office or is available to view on the harbour authority's website.</p> <p>Furthermore, Section 40A of the HA 1964 in relation to Harbour Directions does make a provision for a charge (and requires the giving of the harbour direction to be published in a specialist shipping newspaper, such as Lloyds List) however, Harbour Directions are very different to general directions.</p> <p>See <a href="http://legislation.gov.uk">legislation.gov.uk</a> for orders made by</p>

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		DfT in relation to Harbour Directions. <a href="https://www.legislation.gov.uk/ukxi/2017/279/made">https://www.legislation.gov.uk/ukxi/2017/279/made</a> Should the applicant require these powers, an application must be made to DfT.
2.2.22 Following on from our comment above in comment 2.2.19, the MMO questions if it is appropriate to give special directions outside of the harbour jurisdiction as is stated in Article 67 'Special directions to vessels'.	Noted; for discussion with MMO. This provision replicates Hinkley Point C DCO	We query the authority for special directions to be given on "the approaches" to the harbour and whether this is within the area of jurisdiction? Consider whether 67(1)(a) second line "made in or under a general direction" should read "special direction"? The Newhaven HRO 2016/151 is relied upon as having a similar provision; however it does not appear in Article 7?
2.2.23 The MMO recommends that a gender-neutral drafting is used for Article 71 'Boarding of vessels'. Additionally, it is noted that this article requires notice to be given to a vessel owner prior to boarding, but no notice period is stated. The MMO advises that a period of time in which the vessel owner can respond is stated for this notice. The MMO suggest that PINS review the government guidance in relation to powers of entry, and that entry should be done in accordance with this best practice. The guidance is available at: <a href="https://www.gov.uk/guidance/powers-of-entry">https://www.gov.uk/guidance/powers-of-entry</a>	The term 'their' used in January 2021 draft DCO	Noted. See comment below regarding powers of entry (MMO-43).
2.2.24 Additionally, in relation to Article 71, it is crucial that the Applicant clarifies if the	These powers are derived from and justified by the Planning Act 2008.	Consider whether the provision at 70(2) complies with the Home office powers of

Relevant Representation Comment	Applicant's Comments	MMO's comments
powers of entry are being derived from the Harbours, Docks and Piers Clauses Act 1847, or some other existing primary legislation. Depending on their source, there may be other extensive legal considerations for PINS to undertake.		<p>entry - code of practice?  <a href="https://www.gov.uk/government/publications/powers-of-entry-code-of-practice">https://www.gov.uk/government/publications/powers-of-entry-code-of-practice</a></p> <p>Consider Article 9 in example SI 2021/139 (Isle of Wight HRO) which provides for the powers of entry to be exercised 48 hours after giving of the special direction (except in an emergency) to ensure compliance with the above code of practice.  MMO advise you check these provisions comply with the code of practice on powers of entry. Are the powers of entry derived from the 1847 Act incorporated into this order, or already provided for in existing legislation?</p>
2.2.25 In relation to Article 75 'Deemed marine licence under the 2009 Act' the MMO advises that this article is not a harbour power. Therefore, the MMO suggests that this article may be more suitable in a different section of the DCO.	We have moved this to article into a new Part 6A (Deemed Marine Licence)	MMO do not agree with the appeals procedure within Part 6A (Article 75A. "Appeals procedure in relation to deemed marine licence") as stated in our points above. This should be removed.
3.1.1 The MMO notes that UXO survey and clearance activities are referenced in relation to works no. 2b, 2d, 2f, 2g, 2h, 2i, 2j, 2k, and 2l, and that that potential for UXO detonations are considered in Volume 2, Chapter 22 of the ES – Marine Ecology. Only a hypothetical scenario has been considered at this stage as little is known about potential UXO finds within the	Noted; provision for removal of UXOs removed from January 2021 draft DCO	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
Greater Sizewell Bay. In addition, the draft DCO/DML does not set out the maximum parameters of UXO detonation activities. If the Applicant wishes to undertake UXO works under this DML then a full assessment must be provided within the ES to include UXO detonation or removal, the use of explosives, and the maximum parameters of UXO detonation activities should be clearly defined in the DCO/DML.		
3.1.2 Additionally, under the United Kingdom (UK) Marine Strategy, all developers are committed to record human activities in UK seas that produce loud, low to medium frequency (10 Hertz -10 Kilohertz) impulsive noise. Consequently, if UXOs are to be removed/detonated under this DML, then a further requirement must be added to refer to UXO detonation to satisfy the UK Marine Noise Registry requirements. Condition 39 should also be amended to refer to UXO detonation to satisfy the UK Marine Noise Registry requirements.	Noted; provision for removal of UXOs removed from January 2021 draft DCO	The UXO works have been removed, however piling will still create marine noise. Two new conditions will need to be included to ensure the Marine Noise Registry is notified as per the UK Marine Strategy. First condition: "The licence holder must submit information on the expected location, start and end dates of impact pile driving/detonation of explosives to the Marine Noise Registry, in order to satisfy the 'Forward Look' requirements of the Registry, prior to the commencement of the licensed activities. The licence holder must notify the MMO of the successful submission of 'forward look' data within 7 days of the submission. <a href="https://mnr.jncc.gov.uk/">https://mnr.jncc.gov.uk/</a> " This close out condition is dependent on the duration of the project.



Relevant Representation Comment	Applicant's Comments	MMO's comments
		<p>The second condition depends on the length of the piling. If it is less than 6 months the condition should be:</p> <p>"The exact locations and dates of impact pile driving/detonation of explosives must be submitted to the Marine Noise Registry, in order to satisfy the 'Close-out' requirements of the Registry, within 12 weeks of completion of impact pile driving/detonation of explosives. The licence holder must notify the MMO of the successful submission of 'close out' data within 7 days of the submission. <a href="https://mnr.jncc.gov.uk/">https://mnr.jncc.gov.uk/</a>" Reason: In order to collect the evidence required to support the implementation of the Marine Strategy Framework Directive, under descriptor 11. "</p> <p>If the piling is greater than 6 months the condition should be :</p> <p>"The exact locations and dates of impact pile driving/detonation of explosives must be submitted to the Marine Noise Registry, in order to satisfy the 'Close-out' requirements of the Registry, at 6 month intervals from the commencement of impact pile driving/detonation of explosives. The final data must be submitted within 12 weeks of completion of impact pile driving/detonation of explosives. The licence holder must notify the MMO of the successful submission of 'close out' data</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
		within 7 days of the submission. <a href="https://mnr.jncc.gov.uk/">https://mnr.jncc.gov.uk/</a> Reason: In order to collect the evidence required to support the implementation of the Marine Strategy Framework Directive, under descriptor 11."
3.1.3 The MMO do not consider that any UXO campaign should be authorised through conditions on the DML. UXO campaigns are high risk activities which require detailed, complex impact assessments, conditions and enforcement. It is the MMO's opinion that this activity should be removed from the DML and that it would be more appropriate for the MMO to determine this part of the works, in consultation with relevant stakeholders, through a separate marine licence application.	Noted; provision for removal of UXOs removed from January 2021 draft DCO	Resolved.
3.1.4 The Applicant will also need to apply to the MMO for a separate European Protected Species (EPS) licence in order to authorise any UXO campaign for the project. Mitigation measures captured within an EPS licence and marine licence for UXO campaigns are usually aligned and this would not be possible under the proposed arrangement. Consequently, a separate marine licence with a set of conditions customised for this activity would be more easily enforceable. Condition complexity is such that a recent marine	Noted; provision for removal of UXOs removed from January 2021 draft DCO	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
licence for the UXO campaign at Hornsea 2 Offshore Wind Farm required 19 separate project-specific conditions; the draft DML does not sufficiently secure the required mitigation for this activity. Separating this out from the DML would allow for the UXO campaign to be adequately assessed, conditioned and varied independently without needing to vary the DML should a greater number or magnitude of ordnance be discovered in post-consent survey work than has currently been assessed in the ES.		
3.1.5 The application documents specify that the soft Coastal Defence Feature (sCDF) and the hCDF are to be positioned landward of the current MHWS. As the MMO's jurisdiction covers the area seaward of MHWS (as defined in Section 42 of the MCAA 2009), it is not appropriate to condition these works on the DML, as such conditions would not be enforceable by the MMO. The MMO advises that any works landward of MHWS must be conditioned elsewhere in the DCO, to be enforced by East Suffolk Council, the relevant LPA in the area. Where there are activities that will take place in the area that the LPA's and the MMO's jurisdictions overlap, we will work in accordance with the Coastal Concordat to manage enforcement and	Noted. SZC Co in discussion with East Suffolk Council and MMO to agree approach. Potential for DCO requirements and ML Conditions to be split/separated dependent upon jurisdictions	The hard coastal defence feature has been removed from the DML as it is above MHWS. However, a portion of the footprint of the soft coastal defence feature is likely to be below MHWS. There are ongoing discussions with East Suffolk Council, MMO and the applicant to determine how the sCDF and CMMP should be placed in the DCO and DML.

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>future licences together. However, the MMO recognises that the MHWS line may change over time and thus it may be appropriate to retain conditions on the DML relating to the coastal defence features so that the MMO can manage the enforcement of conditions for these works should they enter our jurisdiction in the future. We suggest the inclusion of a condition similar to that included within the DML (schedule 13) of the Eggborough Gas Fired Generating Station Order (National Infrastructure Planning 2018);</p> <p>(4) The undertaker (and any agent, contractor or subcontractor acting on its behalf) may engage in the licensed activities in –</p> <p>(a) the area bounded by the coordinates set out in Table 12 of this paragraph; and</p> <p>(b) If there is a change in mean high water springs during the construction, maintenance and operation of the licensed activities, the area bounded by the coordinates set out in table 13 in this paragraph to the extent that they fall below mean high water spring tide at the time the licensed activities are carried out.</p>		
<p>3.1.6 The volumes and figures presented in the DCO are not always represented within the ES project description. On numerous occasions, the total figures for cable</p>	<p>Noted; SZC Co to confirm as requested</p>	<p>MMO wait for the applicant to confirm. Additionally, we note that maximum parameters of scour protection and dredging volumes are not stated on the</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
protection, scour protection and disposal volumes do not match across the ES, the DML and Schedule 1 of the DCO. The MMO requests that these volumes and figures for maximum parameters are provided in a clear table to allow for accurate consideration of the potential impacts of these elements of the proposed development, and requests that this level of clarity is reflected in the maximum parameters set out in the DML.		DML, these should be added. Dredging volume is currently conditioned to be submitted as a return. The maximum dredging volumes (per year) must be set out in the DML rather than applied for at a later date.
3.1.7 All references to 'the licence holder' in the DML should be changed to 'the undertaker' instead.	Noted; this has been done in January 2021 draft DCO/DML	Resolved.
3.1.8 In relation to Part 1 'Introduction', the MMO notes that this section would usually have a subheading of 'Interpretation'. This would match Part 1, 'Interpretation' in the main DCO. The MMO recommends that the subheading of 'Interpretation' is inserted into Part 1 of the DML for consistency across the DCO.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.9 The MMO advises that the definition of 'commence' in Part 1, Article 1 (1), 'Introduction' (page 130), should include more detail to clarify exactly which works will be excluded from this definition.	Noted and agreed; to amend in next revision	The introduction in DCO states this does not include (a) site preparation and clearance works; (b) pre-construction archaeological works; (c) environmental surveys and monitoring; The MMO advise that if this will apply for the marine works as well, this should be stated in the DML definition. MMO will wait for amendment in next revision.

Relevant Representation Comment	Applicant's Comments	MMO's comments
3.1.10 The definition of 'Environmental Statement' in Part 1, Article 1 (1) appears to contain typographical errors. It is currently defined as follows "Environmental Statement" means the document submitted by the undertaker to support its application for development consent and certified as such by the Secretary of State under article 78 and identified in Schedule 23 for the purposes of this Order;'. It appears that the cross-references should be to Article 80 (rather than Article 78) and Schedule 22 (rather than Schedule 23). This should be clarified.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.11 The Applicant's definition of 'maintain' in Part 1, Article 1 (1), 'Introduction', differs to the MMO's definition. The MMO define 'maintain' as 'the upkeep or repair of an existing structure or asset wholly within its existing three-dimensional boundaries'. The MMO advises that the definition of 'maintain' is altered to include that existing structures or assets can only be maintained 'within its existing three-dimensional boundaries'. Additionally, the definition of 'maintain' in the DML differs to the definition of 'maintain' in Part 1, Article 2 (1) of the DCO. The MMO advises that the Applicant should clarify if there is a reason why the definitions differ.	Other deemed marine licences in DCOs we have reviewed do not restrict 'maintenance' to the three-dimensional boundaries of the existing structure, and we do not see this as a sensible restrictions as there might be occasions where it was necessary or helpful for a repair to extend slightly outside the original structure boundaries. With regard to the definition of 'maintain', it has been revised in the January 2021 version of the draft DCO/DML to align with article 2(1).	This has been changed to: "maintain" includes inspect, repair, adjust, alter, remove, refurbish, reconstruct, replace and improve to the extent that such activities have been assessed any part of the authorised development, provided such works do not give rise to any materially new or materially different environmental effects to those identified in the environmental information and "maintenance" and "maintaining" are to be construed accordingly;"  MMO does not agree with the inclusion of the word "materially" here on the basis that it should be limited by what was assessed in the ES/HRA and the addition of

Relevant Representation Comment	Applicant's Comments	MMO's comments
		"materially" allows for the movement outside of what was assessed. The definition should state that maintenance can only be to the extent identified and assessed in the ES.
3.1.12 In Part 2, Article 4 (2)(a) the reference to 'Works no. 1 a(m)' without confirmation that this is the Beach Landing Facility (BLF) can be hard to follow. Including a brief description of the works here would aid the reader and reduce the risk of misunderstanding. For example, Article 4 could be changed to: '(2) Such activities are authorised in relation to the construction, maintenance and operation of— (a) Work No. 1a(m) — A Beach Landing Facility comprising—...' This comment is relevant throughout Article 4 (2).	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.13 In relation to Part 2, Article 4 (2)(a)(i) the MMO advises that the term 'approximately' is not accurate enough to be enforceable, and a maximum diameter would be more appropriate. This comment also applies throughout Article 4 (2).	Noted; SZC Co is of the view that the detailed design will need to be approved by MMO as a Condition and will therefore be enforceable. Maxima provided in January 2021 submission draft DCO/DML	MMO request that a worst case scenario for pile diameter is provided within the DML. This applies throughout the DML when "approximate" is used, it should alternatively state "no greater/ larger than X", in line with the maximum designs assessed within the ES. Although the detailed design can be approved post consent, the maximum, worst case scenario parameters assessed within the ES must be secured within the DML.

Relevant Representation Comment	Applicant's Comments	MMO's comments
3.1.14 Part 2, Article 4 (2)(b)(ii) regarding the sCDF states, 'Replacement of sacrificial sediments comprising sand and shingle, or by pass, not in exceedance of 120,000m <sup>3</sup> per annum;'. The MMO requests that the Applicant clarifies what is meant by 'or by pass'.	Noted; Article 4(2)(c)(ii) (which was formerly 4(2)(b)(ii)), has been amended to clarify that by pass means (movement alongshore) in the January 2021 DML/DCO	"Replacement of sacrificial sediments comprising sand and shingle, or by pass-pass (movement alongshore)". MMO highlight that it would be clearer to state "replacement or by pass (movement alongshore) of sacrificial sediments...". There are ongoing discussions with East Suffolk Council, MMO and the applicant to determine how the sCDF should be placed/conditioned in the DCO/DML.
3.1.15 Similarly, in relation to Part 2, Article 4 (2)(b)(iii) the MMO requests clarification from the Applicant on what is meant by 'redistribute'.	This terms has been replaced by the words "by-pass and/or landscape the material" in the January 2021 draft DCO/DML	There are ongoing discussions with East Suffolk Council, MMO and the applicant to determine how the sCDF should be placed/conditioned in the DCO/DML
3.1.16 In relation to Part 2, Article 4 (2)(d)(i), (2)(f)(i), and (2)(h)(i), the MMO advises that some bored tunnels are not licensable under the 2009 Act. For further details, see <a href="https://www.gov.uk/government/publications/marine-licensing-exempted-activities/marine-licensing-exempted-activities--2">https://www.gov.uk/government/publications/marine-licensing-exempted-activities/marine-licensing-exempted-activities--2</a>	Noted - however, our understanding is that our tunnels are not exempt as the sea will flow inside them.	Noted.
3.1.17 The MMO notes in relation to Part 2, Article 4 (2)(e)(iv) that the Applicant could consider adding Low Velocity Side-Entry to the introduction section.	Noted	The MMO note that this was not actioned.
3.1.18 In Part 2 'Licensed Activities – General' the MMO advises that all works should be able to be cross-referenced with the project description and 'Worst-Case	Noted. For further discussion with MMO	The MMO note that this has not been added, there are still no parameters for the size of the BLFs, just the number of piles and pile diameters. There are also no



Relevant Representation Comment	Applicant's Comments	MMO's comments
Scenario' in the EIA. Additionally, further details must be provided here to include maximum areas and volumes. For example, there is no volume provided for the disposal of dredged material in Article 4 (2)(e)(iii). Details of the disposal site should also be included.		disposal volumes. As discussed across earlier comments, maximum design parameters for BLFs and other marine structures/ activities including parameters of grillage for the BLFs should be outlined within DML, in line with what was assessed within the ES.
3.1.19 Part 2, Article 4 (2)(l) relates to the combined drainage outfall tunnel and associated head structure. However, no volumes of anti-scour material around the base of the outfall head is provided. The volumes of anti-scour material should be stated here. Additionally, the MMO requests that the applicant identifies where scour material has been referenced in the ES.	Noted. SZC Co to confirm.	The MMO note that this is not addressed. It should also be stipulated what material will be used for anti-scour. MMO needs to be provided details of the need, type, sources, quantity, distribution and installation methods for scour protection. This should be conditioned. These details could be provided in a scour protection plan post consent, however the worst case maximum scenario volume of scour protection to be used should be stated on the DML. Additionally, there is no maximum volume of capital dredging stated, and this must also be provided.
3.1.20 Similarly, all of the following activities in Part 2 include use of anti-scour material but do not include volumes: Article 4 (2)(i) which relates to outfall heads including vertical shafts, Article 4 (2)(e) which relates to intake heads including vertical shafts, Article 4 (2) (g) which also relates to intake heads and vertical shafts, Article 4 (2)(j) which relates to a fish return tunnel and outfall head, Article 4 (2)(k)	Noted. SZC Co to confirm.	The MMO note that this is not addressed

Relevant Representation Comment	Applicant's Comments	MMO's comments
which relates to a second fish return tunnel and outfall head. The volumes of anti-scour material should be detailed for all these activities.		
The MMO notes that there are two Part 3 headings on pages 135 and 136. Part 3 on page 135 is entitled 'Conditions', and Part 3 on page 136 is entitled 'During Construction, Operation, and Maintenance', however what follows are also conditions. The MMO suggests that the second Part 3 heading is not necessary and a subtitle 'During Construction, Operation, and Maintenance' could be inserted above condition 21 instead.	Noted; amended in January 2021 submission of draft DCO/DML	The MMO note that this was actioned, however, would also advise that there are separate sections for construction and operation/maintenance related conditions, as this gives an easier to read structure to the DML. Currently construction operation and maintenance are all within one section.
3.1.22 In Part 3, all mitigation as outlined within the final EIA should be able to be cross-referenced and linked with a condition.	Noted	The MMO note that this is not yet actioned. MMO would find it useful to be provided with a list of all mitigation relevant to the DML, where it is outlined in the EIA, and DML condition references. MMO has viewed the mitigation route map and notes that the Offshore WSI, MMMP, Southern North Sea Site Integrity Plan, and <i>Sabellaria</i> mitigation are not included.
3.1.23 Part 3, Condition 10 states in relation to the programme of works '...The programme should include:...' The MMO requests that the Applicant changes this to '...The programme must include:...' to make the condition enforceable. This also	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
applies to all other conditions that state 'should include' instead of 'must include'.		
3.1.24 In relation to Part 3, Condition 10 (a), the MMO suggests that the Applicant should add "as outlined in Part 2" to the end of the section.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.25 In relation to Part 3, Condition 11 (1) the MMO notes that the DML requires method statements to be submitted to the MMO 6 weeks prior to the commencement of each licenced activity or each phase of licenced activity. The MMO also notes that there are no timescales stated for the submission of many of the other post consent plans. The MMO does not agree that a 6-week timescale provides sufficient time for the post consent documentation to be considered prior to the commencement of the works. The MMO believes that this timescale is unrealistic as the pre-construction sign-off process is not always straightforward. The MMO appreciates that in many cases the Applicant could be working towards a very tight post-consent time schedule, and a delay in document sign off could lead to project deadlines slipping, significant cost implications and frustration. Consequently, it is crucial to manage the Applicant's expectations and enable forward planning through ensuring that there is enough time allowed for this	Noted; for discussion with MMO. SZC Co is of the view that where Conditions require pre-application consultation with named stakeholders 6 months lead time is unnecessary and potentially prohibitive. However, 6 months has been provided for in respect of condition 11(1) and some other conditions where considered appropriate.	Not resolved. MMO requests returns (plans and method statements) to be submitted to MMO at least 6 months prior to works being planned to start so that the applicant can best forecast the time required for the MMOs review and consultation on the document. Enabling MMO sufficient time to review a document will help to prevent any delays that could effect the project. This is a realistic time frame for MMO to sign off returns that the MMO advises it is followed to avoid project delays. There is no guarantee that pre application consultation undertaken by the applicant (in the MTF or independantly) will resolve stakeholder concerns. There MMO could still be required to undertake multiple consultations (normally 4 weeks each) to capture comments and resolve issues with the plan. MMO would not unreasonably delay sign off of a plan and is advising a 6 month lead period to best prepare the project so they do not incur delays. Additionally MMO should not be held to a deadline to approve documents because MMO would always try

Relevant Representation Comment	Applicant's Comments	MMO's comments
process. Therefore, the MMO recommends that a more realistic, 6-month timeframe is provided for consideration of post-consent documentation submissions. This will allow for sufficient stakeholder consultation and comment to be provided.		and approve documents as efficiently as reasonably possible, see comment MMO-02 above. This applies throughout the DML.
3.1.26 A 6-month timeframe for documents to be submitted prior to the commencement of works is recommended because, based on the MMO's extensive DCO-experience, it is very common for the post-consent submissions to require multiple rounds of consultations to address stakeholder concerns. This process alone can be very time-consuming. For example, the time scale of one in-depth plan (such as the Archaeological Written Scheme of Investigation) could potentially follow this path: • 4 weeks to acknowledge and review the document within the MMO. • Up to 6 weeks for external consultation of the documentation. • Once consultation is closed the MMO must review the response and possibly ask for additional information from the Applicant. At this stage the MMO and the Applicant would be in discussion to agree on an approach to the responses. This could take up to 4 weeks. • The MMO could then request further information from the Applicant, which dependent on the level of detail, could represent a further	See response to 3.1.26 above	Our Relevant Representation [RR-0744] comment still stands.

Relevant Representation Comment	Applicant's Comments	MMO's comments
significant time period of for example 4-6 further weeks. • Once this is returned by the Applicant, the MMO may need to begin the consultation process again.		
3.1.27 It is noted from the above that, even if discharge documentation were to follow the current timescales, and no further communication was required from the Applicant (which is highly unlikely) the current turnaround equates to 14 weeks. Whilst the MMO always endeavours to process any post-consent documentation as efficiently as possible, allowing the MMO up to 6 months provides sufficient buffer for any additional Applicant and consultee engagement which may be required in order to reach an informed decision, with less risk of delays to the Applicant.	See response to 3.1.26 above	Our Relevant Representation [RR-0744] comment still stands.
3.1.28 Additionally, in relation to Condition 11 (1) the MMO advises that each method statement must include locations.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.29 In relation to Part 3, Condition 11 (2) the MMO suggests that the Applicant should consider adding the Marine Case Management System (MCMS) to Part 1 'Introduction'.	Added to Part 1 article 2(3).	Resolved.
3.1.30 The MMO notes that Part 3, Condition 12 (2) is not a pre-construction condition and should be moved to the appropriate section of the DML.	Noted; amended in January 2021 submission of draft DCO/DML	The MMO notes that this has not been actioned. The condition that requires notice to MMO following completion of works has been removed, potentially by accident. This

Relevant Representation Comment	Applicant's Comments	MMO's comments
		must be included within the appropriate section.
3.1.31 In Part 3, it appears there is currently no provision for updated methodologies, final design, or updated plans to be provided. The MMO advises that it is clarified how this will be included and conditioned.	Article 7B added to address this in the January 2021 draft DCO/DML.	The MMO advises that it is unusual to place this before the conditions which require the plans to be submitted, it usually fits afterwards. If this is intended to be a term of the authorisation of a condition attached to the licence then it should be in within "Part 3".
3.1.32 In relation to Part 3, Condition 14, the MMO advises that the wording of the Notice to Mariners condition is updated to reflect the current requirements agreed with Maritime and Coastguard Agency / UK Hydrographic Office: 'Local mariners and fishermen's organisations must be made fully aware of the activity through a local Notice to Mariners. This must be issued at least 5 days before the commencement of the works. The MMO must be sent a copy of the notification within 24 hours of issue.'	Noted; amended in January 2021 submission of draft DCO/DML	MMO note that this has been done. MMO would further advise that this notice to mariners should be sent to MCA and UKHO. This should be stated in the condition.
3.1.33 In relation to Part 3, Condition 17 (1) the MMO advises that to aid sign-off of the plan it would be useful if the plan could also include: '...(f) – confidence that the proposed mitigation will be effective.'	Noted; amended in January 2021 submission of draft DCO/DML	MMO note that this is done. On further review we advise that this wording would be more clear if it said that the plan should include "details on why the undertaker is confident that the proposed mitigation will be effective".
3.1.34 In Part 3, Condition 17, the MMO notes that there is no mention of the role of the Marine Technical Forum (MTF) in the delivery of the Monitoring and Mitigation	Noted; for discussion with MMO	MMO note that there is no mention of the MTF but it is included that the applicant must consult EA, ESC and NE prior to

Relevant Representation Comment	Applicant's Comments	MMO's comments
Plan actions. This group was set up with a constitution designed to oversee the Monitoring and Mitigation Plan through the construction and operation phases. The MMO therefore recommends that its role is referenced in the DCO in a similar fashion to the ES.		submitting to MMO. We are satisfied that the MTF is not "formally" included.
3.1.35 In relation to Part 3, Conditions 17, 18, 19 and 20 (1), the MMO request that the Applicant adds a timeframe of when these documents will be submitted to the MMO for approval considering the approval timeframes discussed in paragraph 3.1.25.	Noted; amended in January 2021 submission of draft DCO/DML	Regarding 17 (3) 6 weeks not long enough, MMO advise that 6 months is a realistic time frame for document sign off. MTF will likely speed up sign off process as consultees will be aware of the plans prior to submission, but this is not guaranteed. MMO still require 6 months to fulfil its duty to consult where necessary and in case any issues require resolution prior to determination. The MMO consults stakeholders for around 4-6 weeks at a time if any consultation is still required and so a 6 week period is not long enough to enable MMO to turn around a document that requires consultation. Sometimes multiple consultations are required. Furthermore, if the quality of the submitted documents are not satisfactory, it would require updates from the applicants that cannot be factored within such a short timeframe. 18- MEMP is now 3 months, again MMO requests 6 months. 19- WSI is now 6 months which is appropriate. However again, these time frames are

Relevant Representation Comment	Applicant's Comments	MMO's comments
		guidelines for when the applicant should aim to submit documents to MMO and they should be open ended. MMO should not be held to deadlines to make decisions. See comments on MMO-02.
3.1.36 The MMO advises that Part 3, Condition 20 (1) should be amended to state that the plan will be approved by the MMO in consultation with the appropriate Inshore Fisheries and Conservation Authority (IFCA). If the applicant does amend the wording of this condition then IFCA should also be added to Part 1, 'Introduction'.	Noted; amended in January 2021 submission of draft DCO/DML	The MMO note that this has been changed to: "The undertaker must, after consultation with the Eastern Inshore Fisheries and Conservation Authority (EIFCA), submit to the MMO for approval...". It would be hard to enforce that IFCA must be consulted by the applicant prior to submission. MMO would usually control consultation with IFCA so wording should say instead that the applicant must submit to MMO for approval in consultation with EIFCA. There is nothing stopping the applicant from getting advice from IFCA prior to submission to help negate the risk of issues during MMO consultation, but doesn't it need to be conditioned in this way. MMO would prefer this wording: "The licensed activities or any part of those activities must not commence until a Fisheries Liaison and Coexistence Plan (FLCP) covering the period of construction and operation has been submitted to and approved in writing by the MMO, in consultation with the Eastern IFCA. The plan must include:..."



Relevant Representation Comment	Applicant's Comments	MMO's comments
3.1.37 In relation to Part 3, Condition 24 (3) a 10-minute cessation period should be stated. The MMO requests that the Applicant changes this.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.38 The MMO advises that a number of changes are made to the wording of Part 3, Condition 33. The condition should be amended to 'local' MMO office from 'district' MMO office. This will align with the description in Part 1, Article 2 'Addresses'. The condition should state that "the undertaker must endeavour to locate the material and recover or move it to a location where it poses no risk to navigation'. Additionally, the condition should state that the undertaker must demonstrate to the MMO that they have made suitable attempts to locate, recover or move the material should they not be able to do so. Finally, the MMO would like to see the reporting time of such an incident reduced from 48 hours to 24 hours. This is in-line with the MMO dropped objects reporting timeframe.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.39 The MMO requests that Condition 34 is amended to say that the Maintenance Activities Plan must be submitted to the MMO 'for approval'.	Noted; amended in January 2021 submission of draft DCO/DML	The MMO note that this has been actioned by the applicant, however, 34 (3)(a) should say submitted to MMO for approval as well.
3.1.40 In relation to Part 3, Condition 35 the DML notes that there are requirements for dredging at the BLF (1a(m)), the drilling of	Noted; dredging elements amended in January 2021 submission of draft DCO/DML	All dredging conditions require further discussion with MMO. Explicit maximum volumes and depths of

Relevant Representation Comment	Applicant's Comments	MMO's comments
the tunnel (2k and 2l), the intake heads and vertical shafts (2b and 2d), the outfall heads (2f) and the FRR (2g, 2h, 2i and 2j). The ES (Volume 2, Chapter 3, p.3.4.122) gives a total volume of 110,000m <sup>3</sup> which we assume is the capital dredge for the activities listed above. There does not appear to be any reference to volumes for navigational/maintenance dredge or pre-dredge silt removal requirements. Some consideration should also be given to requirements for initial silt removal which may be needed prior to any capital dredge. If volumes of navigational dredging / silt removal are not provided within requirement number 36 (with supporting assessment linked back to the ES) then a separate marine licence may be required for that activity. As that requirement would be directly linked to the construction of the plant, then it would likely fall under EIA regulations.		dredging must be stated on DML, in line with those assessed within the ES. The disposal site should also be listed on the DML. Additionally, pre and post dredge bathymetrical surveys are required and this should be stated within the DML. The pre-dredging bathymetric survey should be carried out within a three month period prior to the proposed dredging. The post-dredge survey should be carried out as soon as practical after the completion of the dredging, usually immediately or within a few hours (account will be taken of delays caused by issues such as adverse weather conditions or lack of access to the berth). MMO will review bathymetric surveys to confirm that the dredging has been carried out in line with the licensed dredge depth, area and within acceptable volume limits. MMO require that the bathymetric survey is provided on a chart (provided digitally) showing the licensed dredge area and dredge depth. This will allow MMO to quickly confirm that the licence requirements have been met. This should be discussed further with MMO to identify when and how often these surveys should be undertaken given the regular maintenance dredging that will take place.

Relevant Representation Comment	Applicant's Comments	MMO's comments
3.1.41 Also, in relation to Condition 35, the MMO requests that the wording of this condition is amended to include the requirement for the depth of material that will be dredged to be provided. For example, Condition 35 (d) could be amended to 'volume and depth of material to be dredged'.	Noted; amended in January 2021 submission of draft DCO/DML	MMO note that this has been done. However, as outlined in other comments, explicit maximum volumes and depths of dredging must be stated on DML.
3.1.42 In relation to Part 3, Condition 36, the MMO requests that additional details are included in the requirements for this condition. The MMO proposes that the condition is amended to: 36.—(1) For Work Nos. 1A(m), 2K and 2L, 2B, 2D, 2F, 2G and 2H, and 2I and 2J, no dredging or disposal activity shall commence pursuant to the relevant Work No. until a sample plan and sediment sample analysis request for that Work No. has been submitted to, and approved by, the MMO. The plan must include: (a) Name of the area to be dredged; (b) Name of the disposal site; (c) Details of the material type proposed for deposition dredge and disposal; (d) Volume of the material proposed for dredge and disposal; (e) Dredging methodology (including dredge depth and proposed programme for the dredge and disposal activities)	Noted; amended in January 2021 submission of draft DCO/DML	MMO note that some amendments have been made, but again maximum dredge volume and dredge depth must be stated within the DML condition. The type of dredging (capital or maintenance) should also be clearly stated in the condition.

Relevant Representation Comment	Applicant's Comments	MMO's comments
(f) The location and depth of any supporting samples and (g) Analysis results which shall not exceed 3 years in age.		
3.1.43 The MMO notes that the Applicant is seeking to have a new disposal site designated within the footprint of Sizewell C NNB, and the Applicant has submitted a site characterisation report for the proposed new disposal site. The MMO advises that PINS must consult with all stakeholders who could have an interest in the designation of a new disposal site in this area. It will be necessary to consult the owner of the seabed where the new disposal site is to be designated. This will likely be The Crown Estate, which owns the sea bed up to the 200-mile limit of UK territorial waters. Consultation should also include relevant local interests, user groups and marine protection organisations. The MMO will aim to provide specific comments on the disposal site characterisation report in our future responses.	Noted; for discussion with MMO	See MMO comments on Disposal Site Characterisation Report in comments MMO-451 - MMO-460 of this SOCG.
3.1.44 In relation to Part 3, Conditions 35, 36, 40-45, 47, 48, and 50, the Applicant should include a timeframe of when documents will be submitted to the MMO. As detailed above, the MMO recommends that this should be 6 months prior to the commencement of works. This is	Noted; amended in January 2021 submission of draft DCO/DML. 6 months is specified where considered appropriate	MMO note that this was actioned, however, time frame is too short, MMO requests that plans are submitted 6 months prior to works.

Relevant Representation Comment	Applicant's Comments	MMO's comments
particularly relevant for the Sabellaria spinulosa Monitoring Plan that will be submitted under Condition 45 because it relates to a sensitive and protected feature.		
3.1.45 In relation to Part 3, Condition 37 (2), the MMO advises that 'OSPAR' is included in DML Part 1, 'Introduction'.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.46 Notwithstanding our advice in the above paragraphs 3.1.3 and 3.1.4 that UXO works should be removed from the DML, if UXO works are to remain within the DML then Part 3, Condition 39 may need to include the requirement for a Site Integrity Plan for the Southern North Sea Special Area of Conservation (SAC) to be submitted to the MMO.	Noted - UXO removal removed from DML; amended in January 2021 submission of draft DCO/DML	<p>The MMO notes that UXO works have been removed. However, a Southern North Sea SAC Site Integrity Plan is still required due to impact piling proposed for the BLF within the SAC. There should be a condition outlining that this will be provided. Please see the standard wording in other project DMLs that MMO advise is included:</p> <p>Site Integrity Plan (i) Prior to the commencement of any activities which produce underwater noise authorised under this licence, a Site Integrity Plan (SIP) must be submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body. The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation (SNS SAC) as well as any agreed Management Measures and it must set out the key</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
		<p>Statutory Nature Conservation Body (SNCB) Advice on Activities within the SNS SAC which could reasonably be expected to impact upon site integrity as a result of the Project, as are set out in the SNCB guidance published in June 2020: Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs Joint Nature Conservation Committee (JNCC) Report no.654, May 2020 ("the Guidance"). The MMO will approve the SIP where it is satisfied that the Project, either alone or in combination with other plans or projects, will not exceed the noise thresholds assessed within the Special Area of Conservation Review of Consents Habitats Regulations Assessment, which are based on the Guidance. Where the MMO cannot be satisfied that the Project, either alone or in combination with other plans or projects, will not exceed the thresholds set out in the HRA then the MMO will not approve the SIP. The SIP must be submitted to the MMO for approval no later than 6 months prior to the start of construction unless otherwise agreed with the MMO. In spite of anything to the contrary in any licence or consent, the Project must be carried out in accordance with the approved SIP. The approved SIP may be amended with the</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
		prior written approval of the MMO, in consultation with the relevant statutory nature conservation body, where the MMO remains satisfied that the Project, either alone or in-combination with other plans or projects, will not exceed the thresholds set out in the HRA.
3.1.47 Additionally, in Condition 39 it is not clear if UXO detonation will only be undertaken during construction, or if this be continued during maintenance and operation. The MMO advises that it is specified when UXO detonation will take place.	Noted - UXO removal removed from DML; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.48 The MMO advises that Part 3, Conditions 40 (1), 41(1), and 42 (1), relating to the BLF, sCDF, and hCDF, should be amended to state that the works will not commence until the activity details have been submitted to and approved by the MMO 'in consultation with East Suffolk Council'. For example, Condition 40 (1) should be amended to: Beach Landing Facility 40.—(1) Development of Work No. 1A(m) shall not commence until the following activity details have been submitted to and approved by the MMO in consultation with East Suffolk Council...'	Noted; amended in January 2021 submission of draft DCO/DML (article 41(1) and 42(1) deleted). Detail subject to change based on jurisdiction discussions with ESC and MMO	The MMO notes that the changed but wording states "shall not commence until the following activity details have been submitted to and, after consultation by the undertaker with ESC, been approved by the MMO". MMO would usually consult ESC, we do not necessarily need the condition to state that the undertaker must consult ESC prior to submitting. Therefore it would suit our process more to state (...) have been submitted to and approved by the MMO in consultation with East Suffolk Council". As discussed within the meeting between MMO and the applicant dated 01/03/2021 the preference for wording this is ongoing.

Relevant Representation Comment	Applicant's Comments	MMO's comments
3.1.49 The MMO advises that in Part 3, Condition 40, the requirement to provide a noise risk assessment should be included due to the option of percussive piling. Any mitigation that is provided to minimise impacts to protected species which is not already captured in the HRA/a separate provision in the DML, should also be included here.	Noted. Noise assessment provided in January 2021 submission of draft DCO/DML	Noted. As impact piling is proposed, we require details of mitigation to reduce noise impacts on the DML (soft start procedures, MMMP, SNS SAC SIP). Currently the piling mitigation seems to be spread out within DML (Condition 24 states the mitigation for piling, and there is a noise risk assessment detailed elsewhere), and the mitigation is potentially repeated in different places. MMO requests whether there a way this can be streamlined into one section of the DML by grouping conditions together so that it is easier to see all mitigation in one place.
3.1.50 There appears to be a typographical error at Part 3, Condition 41 (2) (soft Coastal Defence Feature). We consider that the cross reference to Work No. 1a(o) should instead be to Work No. 1a(n), for consistency with Part 3, Condition 41 (1).	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.51 The MMO notes that Work No. 1a (o) relates to the construction of the hCDF. However, no volumes or dimensions of rock protection are provided in the DML, and nor is it referenced in the ES, Vol 2, Chapter 3. The MMO notes that maximum requirements must be detailed in the DML. Additionally, it appears that the reference in Part 3 Condition 42 (2) to Work No. 1a (t) is a typographical error and	Noted; HCDF removed from DML based on jurisdiction discussions with ESC and MMO. DML amended in January 2021 submission of draft DCO/DML	Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
should refer to Work No. 1A(o), for consistency with Part 3, Condition 42 (1).		
3.1.52 Part 3, Conditions 40-50 all list specific details that must be provided to the MMO in relation to the conditions. All of these conditions should be amended to state the 'details must include but are not limited to: ...' and they should all include a provision for 'any other reasonable details the MMO deem are required'. For example, Condition 42 (1) should be amended to: '42.—(1) Development of Work No. 1A(o) shall not commence until the following activity details have been submitted to and approved by the MMO. The details must include but are not limited to: (a) start and end dates for the installation (b) installation methodology and detailed method statement, (c) vehicles and plant to be used, (d) any other reasonable details the MMO deem are required.'	Noted; for discussion with MMO. SZC Co is of the view that required information must be stipulated if timescales for provision are stated on Conditions. In any case, "not limited to" and "any other information" duplicate this provision.	Ongoing discussions.
3.1.53 Part 3, Conditions 40-44, 47 and 48, all list the details that must be provided to the MMO about the different activities referred to in each condition. These conditions should be amended to include 'impacts to receptors' as an additional detail that must be provided. For example, Condition 40 (1) should be amended to: '40.—(1) Development of Work No. 1A(m)	Noted; for discussion with MMO. SZC Co is of the opinion that impacts have already been assessed in the ES.	The MMO notes that this is not done. The request was intended to demonstrate to MMO that the impacts are in line with what was assessed within the ES.

Relevant Representation Comment	Applicant's Comments	MMO's comments
shall not commence until the following activity details have been submitted to and approved by the MMO. The details must include but are not limited to: (a) start and end dates for the installation (b) installation methodology and detailed method statement, (c) navigational lighting to be used on plant, (d) vessels to be used, (e) impacts to receptors, and (f) any other reasonable details the MMO deem are required.'		
3.1.54 Part 3, Conditions 40-44 should also include 'links to the coastal processes monitoring and mitigation plan' as an additional detail that must be provided. For example, Condition 41 (1) should be amended to: '41.—(1) Development of Work No. 1A(n) shall not commence until the following activity details have been submitted to and approved by the MMO. The details must include but are not limited to: (a) start and end dates for the installation (b) installation methodology and detailed method statement, (c) vehicles and plant to be used, (d) impacts to receptors, (e) links to the coastal processes monitoring and mitigation plan, and	Noted; amended in January 2021 submission of draft DCO/DML, but excluding reference to 'any other reasonable details the MMO deemed required', which is too vague and uncertain.	The MMO note the amendment made. MMO still ask that further wording is included to clarify that MMO could require further detail. Further discussion required.

Relevant Representation Comment	Applicant's Comments	MMO's comments
(f) any other reasonable details the MMO deem are required.'		
3.1.55 Additionally, in Part 3, there are no mitigation requirements for Conditions 41, 42, 44, 45, and 47. The MMO advises that this should be included for these conditions.	Noted; for discussion with MMO.	The MMO note that this was not actioned for conditions 45 and 47, this remains outstanding.
3.1.56 The MMO understand that East Suffolk Council have comments regarding information that should also be included in conditions 41 – 43. Assuming that there are no conflicts, the MMO welcome that the recommendations from both of our organisations are included in these conditions.	Noted; for discussion with MMO following discussions with ESC	MMO note that further discussion with the applicant is required on this matter.
3.1.57 Part 3, Condition 45 appears to have a typographical error in the first line as it says 'untilo' where it should say 'until'.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
3.1.58 In relation to Part 3, Condition 45, the MMO requests that the Applicant adds '(3) demonstration of how the project design reduces the loss of reef, and surrounding area available for reef to develop into, as far as practicable' as part of the details that must be provided within the Sabellaria Monitoring Plan.	Noted; amended in January 2021 submission of draft DCO/DML	MMO note that this has not been addressed, as such it remains unresolved.
3.1.59 In relation to Part 3, Condition 50 (b) the MMO would also need an analysis of the confidence of the additional adaptive measures. We therefore request the Applicant amends this Condition to include this.	Noted; for discussion with MMO	MMO note that this has not been addressed, as such it remains unresolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
There is also a typographical error here as 'Unit 2' has been missed off at the end.		
3.1.60 In relation to Part 4, Tables 6 and 7, 'FRR' should be included in Part 1, 'Introduction'.	Noted; amended in January 2021 submission of draft DCO/DML	Resolved.
<b>4. Other application documents</b>  4.1.1 The MMO note that detailed monitoring plans will need to be produced for each project element and submitted to the MMO for approval. At this stage detail is lacking throughout.	Noted	MMO note that this has not been addressed, as such it remains unresolved.
<b>4.2 Coastal Processes Monitoring and Mitigation Plan (BEEMS TR523)</b>  4.2.1 The MMO advise that any coastal monitoring plan should also be included as a requirement. This is because for any works landward of MHWS, East Suffolk Council will be the enforcement body; any monitoring that relates to the sCHF and hCDF will be of relevance to the council.	Noted. Jurisdiction under discussion with MMO and ESC. CPMMP added as Requirement in January 2021 submission.	The MMO is still in discussions with the applicant and ESC. Currently the applicant has proposed that the main sign off will be with ESC, with deemed approval by MMO once ESC approve the plan. However, MMO disagree with this approach. MMO is content for ESC to sign off the monitoring and mitigation for the coastal defences (as they lie almost entirely above MHWS), however, MMO require that the monitoring and mitigation proposed in the CPMMP for the marine works such as Offshore cooling water infrastructure; Nearshore outfalls; and Beach Landing Facilities is signed off by MMO via a DML condition. MMO advise that the full plan is either submitted to both, or split into two plans based on MMO/ESC differing jurisdictions. If it is submitted as

Relevant Representation Comment	Applicant's Comments	MMO's comments
		one plan, it will need to be very clear who is approving which element.
<p>4.2.2 The plan restates the impact assessments that are included in the relevant ES chapter. The MMO understands that the level of monitoring relates to the scale of impact, however the scale of predicted impact is not fully agreed at this stage as, unavoidably in the marine environment, some uncertainties remain. The MMO advises that monitoring options to address these uncertainties should be included.</p> <p>This is most relevant to the monitoring of the BLF.</p>	<p>The largest impact extent from the BLF arises from the navigation channel (+/- 5% change in bed shear stress), and covers a subtidal frontage of up to 175 m either side of the BLF. The effect was minor and classified as not significant. Therefore, the proposed monitoring is pre-cautionary and, in the case of pile scour (extents of 7.1 m length, predicted using standard equations), is standard practice. If unexpected impacts approaching the monitored perimeter were encountered, the extents would be enlarged accordingly and in agreement with the MMO.</p> <p>That said, the monitoring extent is already 7-11 times larger than the impact for scour, and almost three times larger than the footprint of the +/-5% bed shear stress change. We feel that the pre-cautionary principle is being appropriately and conservatively applied, however if there are relevant evidence-based concerns, we would welcome these and make concordant adjustments to the CMMP.</p>	<p>It is agreed the BLF dredging provides the largest impact. Changes in bed shear stress imply a change in sediment flux hence some response of the bed in the offshore region is likely. In the absence of a sediment transport model the magnitude and extent of these changes is uncertain, therefore MMO considers that, even if only for the early stage of the monitoring programme, further surveys should be undertaken to confirm the predictions.</p> <p>The plan proposes a 1 km area (500m either side of the enhanced BLF) to be surveyed pre and post reprofiling. MMO considers this area appropriate, however MMO advises that surveys of this area should be repeated three and six months after reprofiling as well.</p> <p>These surveys should be undertaken following the completion of the BLF dredge to confirm 1) the dispersion of the dredged material which has been ploughed to the side, 2) the response of the dredged slope into the outer longshore bar with any consequences for the longshore bar crest level and 3) the potential infill rate in the dredged area for the BLF.</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
4.2.3 The MMO notes that the plan presents a monitoring strategy, and the available methodologies, with a broad description of how each will be applied to a project element. The MMO advises that more detailed monitoring plans must be agreed for each project element and method.	Agreed. The CMMP framework and details set out in version 1 will be updated and the proposed monitoring will be explicitly linked to the impacts and project elements. This will be done on a component basis, as set out in the CMMP.	Noted. Ongoing discussions between the applicant and the MMO regarding the details of when this detail will be submitted.
4.2.4 The MMO notes that there is no monitoring of the change to sub-tidal bed substrate included in the plan. This must be included here. Alternatively, if this is considered within benthic ecology section, this should be referenced here.	No significant coastal processes impacts from substrate changes have been identified in the ES and as such there is no CP need or requirement to monitor substrate change. This is the assessment for geomorphology, but we understand that the same conclusion was reached by benthic ecology.	Noted. MMO comments addressed.
4.2.5 The plan states that the overall bathymetry of the banks will be surveyed within the background monitoring programme – i.e. once every 5 years. It is the MMO's view that 5 years would be too long to alert the project to any unexpected changes which can occur in a dynamic marine environment, at least during the early years of the construction programme.	<p>This question appears to be about effects of natural hazards on the station, which is not within the remit of the CMMP.</p> <p>However, the station and HCDF designs for extremes included modelling with the bank removed and lowered, so the condition of the bank is not critical for the station.</p> <p>A 5 yearly survey is appropriate. The present re-survey interval of the bank by SZB is once every 10 years.</p> <p>The 5-year interval is based on the evidence and reasoning that significant</p>	For clarity, our previous comment is not to do with hazard but with the uncertainty in the response of the outer longshore bar to the maintenance of the dredged area related to the permanent BLF. This is only an issue for the construction period when the dredged area will be subject to regular maintenance dredging. MMO advises that annual surveys for the duration of the construction phase would be appropriate to monitor the outer longshore bar.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	change to large sedimentary features in general, and this bank specifically, will occur over decadal timescales and hence the survey frequency is sufficient to signal incipient changes. From a geomorphic receptors point of view, the primary reason for tracking bank change is to aid in the distinguishment of impacts from natural changes. It is also worth noting that any large scale changes in the bank will be detectable in the near-continuous x-band radar data.	
4.2.6 The report is heavy with abbreviations which are not all expanded. A listing of all abbreviations and particular technical terms (e.g. "white ribbon") should be included.	Noted – we will address this comment in one way or another for a future revision of the CMMP.	Noted. Comment can be closed.
4.2.7 Within section 2.1 the choice of final terrestrial monitoring approach is not made. The MMO advises that it would be useful to describe the criteria for the final choice here.	That is correct – we are confirming the best approach. This will be finalised and agreed before construction (this will mostly be achieved before the end of 2021); the methodology is likely to be that specified, or very similar to that specified, and would meet the technical advantages listed in Section 2.1. As the duration between DCO and commencement of construction is not fixed, it is possible to take advantage of method improvements that could arise in the interim.	Noted. Comment can be closed
4.2.8 Additionally, in relation to section 2.1, the MMO notes that the focus of the X-band radar is on the positions of the bar crests	This is correct and agreed, barlines and shorelines will be derived from terrestrial remote sensing (e.g. radar), whilst	As discussed in comment MMO-110 of this SOCG, to confirm the slopes and volume of the outer longshore bar an increase in the

Relevant Representation Comment	Applicant's Comments	MMO's comments
and shoreline. The MMO advises that evidence for the height, width and slopes of the bars should come from echo sounding.	elevations (and any derived parameters) will come from sounder and/or video methods, as stated in the subsequent sections.	regularity of echo sounding is recommended during the construction phase in an area close to the permanent BLF. MMO suggests that the same 1km (500m either side of the BLF) as the pre and post reprofiling survey areas.
4.2.9 The MMO advises that section 2.2.1 should include an explanation of how the proposed approach is better than LiDAR – either terrestrial based or via Remote Piloted Aircraft (RPA) with similar Real-time Kinematic-Global Positioning System (RTK-GPS) positioning.	Noted. There is plenty of literature on the benefits of drones and their suitability to beach monitoring (e.g., Turner et al., 2016). The ability to deploy rapidly is an important one – lidar is very specialist (e.g. requiring manned aircraft) and cannot be easily deployed on a regular or responsive basis for this sort of monitoring.  This section of the CMMP will be updated in a future version to address this comment.	The MMO note that this comment may be misunderstood. It is not the platform for the measurements but the measuring method that should be supported in the CMMP. MMO will wait to review the updated CMMP.
4.2.10 The MMO advises that section 2.2.2 should include a view on the target accuracies, horizontal and vertical, and hence a view on the uncertainty in the observed beach volume. In particular, this should include how vegetation is taken account of.	Noted. As with comment MMO-114, this will be updated in a future version. Our evidence base indicates RPA is better than lidar due its higher resolution (lidar is effectively an average over a larger area, typically 1m2). Both methods struggle with low dense vegetation such as dune grasses, but we have a robust solution for this deficiency (a hybrid approach using ground and aerial survey), which will be included in a future edition of the CMMP.	Noted. This comment is indeed requesting a view (possibly in the CMMP) of target vertical and horizontal accuracies for the surveys including details of the approach to vegetation. Since the objective is monitoring beach volume, the implications of the anticipated accuracies for this parameter should also be described. MMO will wait to view the future version of the CMMP.
4.2.11 Additionally, in relation to section 2.2.2, the MMO agrees that this method does allow very high resolution. However,	The resolution of 3 x 3 cm will be used for most applications. Setting of resolutions will form part of the next version of the CMMP.	It is agreed the resolution will be part of the detail in the CMMP, MMO will wait to review future version of the CMMP.



Relevant Representation Comment	Applicant's Comments	MMO's comments
the resolution that is being considered for the monitoring should be stated here. It should also be clarified if the data will be averaged onto a grid, or some other method of analysis.	There is presently no reason for the development of a grid / averaging - this would negate the purpose of high-resolution data collection.	MMO notes that averaging (or not) will depend on the approach to threshold setting to detect a significant change with a consequence for further study or mitigation.
4.2.12 In section 2.3, both multi beam and single beam echo sounding are mentioned. The MMO seeks clarity on which will be used where and why. Additionally, a view on the target accuracies, horizontal and vertical, is again needed.	The method to be used has not been finalised. Single beam may be more practical for very shallow water settings (where the beam of a multi-beam becomes very narrow). The final method will be determined in plenty of time to agree it and will be appropriate for detection of impacts predicted e.g. if a single beam were used the transect lines will be sufficiently close to detect changes due to impacts. Subject to water depth limitations, multi-beam is generally preferred.	It is noted that the final method will be agreed at a later date. MMO agree multibeam would be the preferred method where water depths allow it. We assume as for the other measurement methods above, that the target accuracies will be detailed in the future version of the CMMP, please can this be clarified?
4.2.13 In relation to section 2.5 and the baseline monitoring, the MMO advises that there is a strong advantage to, where possible, continuing the data collection that has been undertaken since 2008. It is not clear if these datasets will provide the baseline against which the monitoring will be based, or if the proposed methods will be undertaken for a sufficient period before the start of construction to provide the baseline dataset. This should be clarified.	<p>Agreed, and this is, and will be, the case in all instances except where a new technique out-performs, or it more appropriate than, existing measures. For example, shorelines and barlines from radar and/or cameras out-perform bathymetric surveys in terms of sampling frequency. For RPA surveys, beach profiles can, and will, be extracted to extend the baseline EA and SSMSG datasets, thereby continuing the historical records (albeit at a higher resolution).</p> <p>Yes, the datasets to date (and indeed until construction) will provide the baseline. The</p>	<p>The confirmation is appreciated. The baseline dataset here is excellent.</p> <p>Please can you also confirm what period of data will be used for the baseline to compare the observed changes during the construction phase of the project. For example, will the full 30 years of data be used to define an envelope of 'background' change or, alternatively, a reduced period to cover the trends seen in recent years (5-10 years).</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
	final methods will link and provide continuity to previous data. When linking to profile data, there will be around 30 years of baseline beach elevation data, which is more comprehensive than most (or all?) monitoring programmes for a comparable development in the UK.	
4.2.14 It would be useful for section 3.3 to include an illustration of the proposed monitoring area and the anticipated area of scour.	<p>Noted. It would be helpful to illustrate why this is needed so that graphics do answer the concern that is not already answered by the text – predicted scour dimensions are usually reported numerically and other structures are at distances much greater than the scour footprints, obviating the need for a diagram. An illustration can be generated around an indicative scour ellipse but this would not significantly increase the information already given.</p> <p>If the interest is in the morphology relative to pile positions, this is best understood using the yet-to-be-gathered pre-construction survey as a current survey may be misleading (due to bathymetric changes between the most recent survey and the actual conditions shortly before construction).</p>	The MMO notes that this information may be better read and understood by non-specialist readers an illustration, as it is always helpful to visualise the monitoring area and the anticipated area of scour. We note that this is perhaps more relevant for the other monitoring methods within Section 2 with their large spatial extents, and less so for this section, however we note that it would still be useful.
4.2.15 Additionally, in relation to section 3.3, the MMO is concerned that if all jack-up barges operating do not put their spud legs down within 100m of the offshore	Agreed. The text will be amended for clarity regarding jack-up barge spuds being within the 100 m range. It is worth noting that there would be no practical benefit of	Noted. MMO will wait for this to be amended in future CPMMP.

Relevant Representation Comment	Applicant's Comments	MMO's comments
cooling water infrastructure, their effect will not be captured within the monitoring. The MMO advises that confirmation should be provided that all spud legs will be placed within 100m of the structures, and if not, the monitoring survey area should be increased to cover this.	vessel anchoring at any greater distance i.e. the barges would not be more than 100 m away	
4.2.16 The MMO advises that the assumption within section 3.3 that the scour around the offshore cooling water infrastructure will reach equilibrium in 3 months is subject to uncertainty. If the 6-month survey shows scour development continuing (in depth or extent), then further surveys will be needed until the equilibrium is reached – or mitigation measures are put in place (see next comment).	These are standardly used intervals and as scour has been assessed to have no significant effects, there is no rationale for further monitoring unless unexpected results are observed. If they are, of course, further monitoring would be conducted.	Confirmation appreciated. MMO would like this to be stated in the CPMMP so that it is clear to future readers that further monitoring could be required after 6 months should the scour be continuing to develop.
4.2.17 Although the potential for scour protection is mentioned in section 3.3, there is no mention of the approach to monitoring its effectiveness. The MMO advises that this monitoring would most likely require a pre-installation survey, post-installation survey and follow up survey(s) to show scour has been curtailed.	The monitoring for scour, with or without scour protection, would effectively be the same. The survey area may need to be expanded if the scour protection area was larger than that anticipated. Were that the case, the monitoring would be updated accordingly.	The MMO welcomes that it is stated in the plan that revision of the proposed survey area in the final version of this monitoring plan will be considered if scour protection is used. This comment is resolved.
4.2.18 Additionally, in relation to section 3.3 (as well as section 4.3), the MMO advises that it would be standard practice to grid the multibeam echo sounder (MBES) data to	Gridding MBES data has no specific practical benefit with respect to analysis - this is a convention used in monitoring aggregate extraction developed by that	The MMO notes that 0.5 m is a standard grid output for MBES. An approach to further gridding here is purely to help define what a significant change will look like, and

Relevant Representation Comment	Applicant's Comments	MMO's comments
enable analysis. The resolution grid that will be used should be detailed in these two sections.	industry's practitioners for reasons particular to their interests. If gridding is required, it would most likely be 0.5 m.	nothing to do with the practice in aggregate extraction. This comment can be considered resolved.
4.2.19 It would be useful for section 4.3 to include an illustration of the proposed monitoring area for the nearshore outfalls and the anticipated area of scour. Seeing how the predicted scour relates to the observed changes at Sizewell B (SZB) would also be useful.	<p>Noted. It would be helpful to illustrate why this is needed so that any graphics needed do answer the concern that is not already addressed in the text. For example, if one is interested in the morphology relative to pile positions, this is best understood using the pre-construction survey as a current survey may be misleading.</p> <p>It is not clear why comparisons against SZB would be useful. SZB is substantially larger (discharge &gt; 100 times larger) and is located where the crest of the outer longshore bar would otherwise be (compared to the SZC nearshore outfalls, which would be in deeper water and on the outer flank where transport is lower). Therefore, the SZB outfall scour would not make a meaningful comparison to SZC's small nearshore outfalls due to SZB's large outfall and strong discharge.</p>	The MMO notes that this information may be better read and understood by non-specialist readers as an illustration.
4.2.20 Within section 4.3, it is not clear how the total extent of the monitoring is 1800m if it extends 500m north and 100 m south. This should be clarified.	The stated monitoring area is 500m north of the CDO and <u>1km</u> south of the FRR1 which, including the 300m between these outfalls, accounts for 1800m.	Resolved.
4.2.21 The monitoring detailed in section 4.3 is designed to cover the uncertainty in response of the bar. There should be a	A baseline of bar behaviour is already discussed in Appendix 20A and the feeder report BEEMS Technical Report TR223. It	The MMO confirms that this comment was misplaced, our apologies. This was meant in relation to the permanent BLF. The

Relevant Representation Comment	Applicant's Comments	MMO's comments
presentation of the baseline against which the monitoring will be measured as well as consideration of the approach to thresholds of change (including natural variability) within which the predicted lack of change can be confirmed. Conversely, a conceptual mitigation plan could be considered.	has also been measured with the x-band radar and presented in TR308 (2013-15) and will be updated to include more recent data before construction begins.  No significant effects are predicted, therefore no thresholds or mitigation is required. This is standard practice for EIAs. We were being highly pre-cautious when drawing comparisons with SZB; as stated there are numerous and significant differences between the two – the large outfall size, the large outfall jet and its location in the centre of the outer bar sand transport corridor (compared to smaller outfall and discharge and location on the margins of the outer bar sand transport corridor).	approach to monitoring at the Combined Drainage Outfall is appropriate. The MMO advises that a similar approach should be considered for the longshore bar at the permanent BLF.
4.2.22 In relation to section 4.3, the MMO seeks clarity on whether scour protection will be used for the nearshore outfalls.	The use of scour protection for these structures has not been determined, however no scour protection was assumed for the for the purposes of assessment as this results in deeper scour pits. If scour protection is used for these structures, it would be monitored as part of the scour assessment i.e. the same methods would be used.	The MMO advise that if there is a potential scour protection will be used then this should be stated in the CPMMP.
4.2.23 In relation to section 4.3, the MMO notes that the inner bar will be surveyed, if possible. The MMO seeks clarity on whether it has been confirmed that the	Survey methods, including ASV potential, are under review and will be reported in 2021 (by updating the CMMP).	Noted. MMO awaits the conclusions of this review.

Relevant Representation Comment	Applicant's Comments	MMO's comments
proposed Autonomous Survey Vessels (ASVs) cannot be used here in the shallow water areas.		
4.2.24 Additionally, in relation to section 4.3, the gap in data coverage between the aerial and marine surveying – the white ribbon – is a key parameter in judging the survey quality. The MMO advises that there should be a target coverage for the combined survey methods.	<p>Such a target would be a constraint on monitoring flexibility. We would recommend specification that relevant features are captured (i.e. the crests of the inner bar) at a given frequency, rather than an arbitrary white ribbon dimension, which may not be achievable due to bar migration or site conditions on a given date and may directly limit the value of the data for monitoring bar and shorelines.</p> <p>The size of the white-ribbon will be affected by weather and method (see previous comment MMO-129). But we agree, as part of method selection, and bearing in mind operating conditions, we will include a target. The aim will always be to minimise or eliminate the white ribbon, but it needs to be acknowledged that setting the white-ribbon too low could increase the frequency between surveys, as a small white ribbon requires calmer weather that occurs less often.</p>	The MMO note that it is normal survey procedure to have a target % coverage which is achievable noting all the issues you have described. MMO consider this comment resolved.
4.2.25 A view on the target accuracies, horizontal and vertical, is again needed for section 4.3; in particular, when considering combining the proposed aerial and marine survey data.	Noted - the comparative methods report in progress will directly feed this into aspect of the updated MMP.	Noted. MMO will wait to review the updated CPMMP.

Relevant Representation Comment	Applicant's Comments	MMO's comments
4.2.26 Our comments above on section 4.3 on accuracy and grids etc., also apply to section 5.3.	Noted - ditto our replies.	Noted. This (relating to the BLFs) is the particular area of interest. MMO will wait to review the updated CPMMP.
4.2.27 In relation to the BLF and section 5.3, the MMO is not convinced that there will be no impacts from the BLF piles and dredging (see our comments 5.2.8 and 5.2.9 below). As the monitoring is designed to cover these uncertainties there should be a presentation of the baseline against which the monitoring will be measured, and consideration of the approach to thresholds of change (including natural variability) within which the predicted lack of change can be confirmed. Conversely a conceptual mitigation plan should be considered should change occur, for example, if the material dredge to the side of the BLF berth doesn't disperse.	<p>We do not claim there will be no impacts. The predicted impacts were assessed, and it was determined using the EIA methodology that these were not significant. Furthermore, we do not believe it is possible for there to be an impact from the BLF and dredging in conditions in which the sandy dredge material does not disperse. Sands travel regularly in suspension on the longshore bars, meaning they have high mobility and would readily disperse.</p> <p>Agree regarding baseline. Baseline data collection will continue until construction begins and all baseline reports will be updated accordingly. We will make comparisons against the natural variability.</p> <p>The predicted changes described, and the example given, do not constitute a significant impact and therefore mitigation is not needed or required. Please identify where in the EIA process you see a discrepancy, if still concerned after this reply.</p>	<p>Plough dredging is proposed so the sediment will be moved close to its insitu compaction. It is unlikely all of the up to 2m of material dredged is in the mobile top layer. Depending how the dredge is done the material may well move off quickly or it may take some time. An assumption of rapid dispersion is a worst case for effects on water quality but a non-dispersing case is a worst case for coastal geomorphology.</p> <p>MMO advises that additional surveys should be undertaken 3 months and 6 months following the completion of the BLF dredge to monitor this. See comment MMO-107 above.</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
4.2.28 Additionally, a view on the target accuracies, horizontal and vertical, is needed for section 5.3.	Noted - to be included in next version of the CMMP	Noted. Comment resolved.
4.2.29 It would be useful for section 5.3 to include an illustration of the proposed monitoring area around the BLF and the anticipated area of scour, indicating the limit of predicted effects and the relevant bed contours.	Noted. However, if one is interested in the morphology relative to pile positions, this is best understood using the pre-construction survey as a current survey may be misleading. That is, the most recent surveys could pre-date the conditions at the point of construction, and so would be misleading. We propose to use the pre-construction survey to illustrate. Please indicate if there is still rationale for illustrating these areas against a present (most likely 2017) survey compared to using the pre-construction survey. See TR310 for further detail on scour.	It is agreed the baseline should cover the period as close as possible to the commencement of the construction. However, the illustration of the monitoring area requested here is not to do with the piles, but the area proposed around the bed reprofiling for the BLF barge berthing area.
<b>5. Environmental Statement (ES):</b> <b>Volume 2 – Main Development Site</b> <b>5.1 Chapter 20 – Coastal Geomorphology and Hydrodynamics</b>  5.1.1 Paragraph (P.) 20.3.5 states that thermal plumes have not been assessed because there is no pathway to impact upon geomorphic receptors. The MMO agree that the thermal difference from the outfall is unlikely to alter the geomorphology, however the rising plume from the outfall may influence the	Thank you for the clarification on the aspect concern regarding the thermal plumes. The effect of the outfall jet on sediment transport is considered by way of jet scour. This is the same approach / methodology used and approved in the HPC application.	Noted. Comment resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
hydrodynamics before mixing, and hence may have an effect on sediment transport. Due to mixing and the relative magnitude of the outfall flow and the passing coastal flow, any pathway to effect is likely to be small, however it is present and should be considered here.		
5.1.2 In relation to the study area in p.20.3.9, the MMO agrees that the use of MHWS as an upper limit for the impact assessment is reasonable. However, it should be noted that MHWS is based on the average of the highest water reached during a spring neap cycle. As such, higher tidal water levels will occur regularly as well as higher water levels due to non-tidal forcing. The nett drift averaged over a 10-year period, being towards SZC at Thorpeness and north of Sizewell does not imply automatically that there cannot be any impact of SZC outside the sub cell.	<p>Noted. MHWS has always been understood to be the limit of MMO definition of the marine environment and hence the limit of assessment for marine impacts. The implications of <i>mean</i> and <i>net</i> definitions are well understood with respect to the impacts of rarer events.</p> <p>Regarding the evidence for impacts outside of the sub-cell. Both baseline evidence (longshore transport modelling, longshore transport measurements (TR420), sediment studies and hydrodynamic modelling), the literature (e.g. the SMP) and the modelled impacts themselves clearly show there are no significant impacts for geomorphic receptors outside of the GSB. The only impact extending beyond the bay would be a maximum momentary deposition of 2mm, which would not be detectable.</p>	Noted. MMO seeks clarity on whether any impacts above MHWS are considered?
5.1.3 P.20.3.21 states that the final detailed designs are not yet available and that assumptions are to assess the likely worst-	Noted.	Noted.

Relevant Representation Comment	Applicant's Comments	MMO's comments
case impacts. This is an important note to remember in reviewing the predicted effects.		
5.1.4 In relation to p.20.4.6, the historic change in predominantly North East (NE) waves to a bimodal situation during the 19th Century and up to 1925 is noted. In our previous comments (dated 01/11/2019) the MMO asked why the impact of the "19th Century" wave climate resuming has not been assessed. This has still not been considered as the present situation of little coastal change (and hence little impact) depends on the present wave regime continuing. The MMO advises that any future assessment should consider the risks of the system reverting to the NE wave dominated scenario of the early 20th Century when high rates of erosion and accretion occurred.	<p>We believe this query has been previously answered, but we reiterate here:</p> <p>The inferred historical evidence of a NE dominant wave climate associated with severe erosion at Dunwich is not considered because it does not present a worst case for impacts at SZC. That is, sediments from the rapidly eroding Dunwich Cliffs were deposited in the southern part of the GSB, and were that to occur today the potential impacts at SZC would be lessened, as would the need for beach maintenance (see the ES Addendum for HCSF and SCDF updates). Furthermore, it is not the case that the NE wave case was not considered - it is captured in TR403 and commented is paragraph 20.14.3 of the ES.</p>	It is accepted that the work has focussed on the worst case impacts for the project. This comment is resolved.
5.1.5 The MMO notes that p.20.4.31 states suspended sediment concentrations (SSC) 'regularly peaks at low water slack'. We presume that this is from near bed SSC observations, hence the comment on settling, however this should be made clear.	Noted	MMO await's clarification.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.1.6 In relation to p.20.4.65, the MMO notes that there is some evidence for a link to the North Atlantic Oscillation (Blanco and Brampton, 2017). As described above, the risk that the wave climate at Sizewell reverts to the pre-1925 case should be considered. Such a change could significantly alter the sediment supply and coastline behaviour.	<p>The reviewer is referred to BEEMS TR403 for further detail on NAO. Although the Blanco and Brampton (2017) paper, which is a conference paper and has not been peer reviewed, suggests there is some evidence for a link between NAO at Bawdsey, the following points demonstrate this paper is not likely to have relevance to Sizewell:</p> <ul style="list-style-type: none"> <li>* The link between the NAO and storminess is not conclusive (Burningham and French, 2013).</li> <li>* Bawdsey is a very different system to Sizewell in respect to both its wave climate and the modelled longshore transport. Its wave climate and longshore transport are not in balance</li> <li>* Whilst Bawdsey may be exhibiting some weak correlation with the NAO, there is no matching evidence at Sizewell. Changes in the shoreline show little correlation with forcing condition</li> </ul> <p>See reply for MMO-138. The NE climate associated with historical erosion at Dunwich presents an optimistic case for Sizewell C, not the worst-case that is needed for assessment.</p>	It is accepted that the work has focussed on the worst case impacts for the project. This comment is resolved.
5.1.7 In relation to p.20.4.77 on the future shoreline baseline geomorphic elements, it is assumed that the future baseline will resemble the present day. As mentioned	Please refer to our replies on this subject in MMO-138 and MMO-140. With respect to EIA and worst cases, we do not believe there to be a gap. The consequences of	It is accepted that the work has focussed on the worst case impacts for the project. This comment is resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
above, the lack of assessment of changes to the offshore wave climate to a NE domination is a gap in the analysis. For the nearshore climate, it assumes the bank system is stable. However, the northern end of Dunwich bank has lowered 2 metres in the past 10 years; the most logical assumption would be for this trend to continue. This will affect the nearshore wave climate and should be included.	bank change were also considered in TR403.	
5.1.8 In relation to p.20.8.14, and p.20.8.29 the MMO advises that the presence of the piles may lead to some salient at the jetty location or just down drift of it. Although this is unlikely to be large, it may have some effect on the littoral drift and should be considered.	<p>We are aware of no particular reason or evidence as to why the piles should promote a downstream salient. The BLF is transmissive and so should only have minor localised (scour impacts). Furthermore, a small salient would not have a significant effect on littoral drift. A salient would not be a literal barrier (unlike a groyne, or Minsmere outfall). Sediment would be free to pass around the salient and there would be no downstream deficit - as, for example, is the case for the large salient at SZB.</p> <p>Were a salient to form this would reduce the SCDF maintenance activity (refer to the DCO changes in the ES Addendum).</p>	Our comment noted any salient is unlikely to be large. The additional text in the updated ES addendum on salients is welcomed. This comment is resolved.
5.1.9 In relation to p.20.8.22, the MMO advises that based on the infill rates predicted, the proposed maintenance dredging for barge access will include a capital dredge in advance of the period of	<p>Slope degradation was accounted for in the dredge calculation by allowance of the angle of repose around the dredged area (see Section 4.2.2).</p> <p>As noted in a previous response, the</p>	The MMO notes that since any dredging will not exactly produce the required slope, some adjustment of the slope to a stable slope is to be expected. Furthermore the forces of the dredger on the seabed

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p>operation (April to October), in addition to dredging for 2-3 days per month over the usage period. We are concerned that slope degradation, as is typical following a dredge, may result in more maintenance than is assessed.</p> <p>Within this slope degradation, sediment may slump from the inner longshore bar as the dredged area intercepts it. Continued maintenance of this area could degrade the inner longshore bar. Assuming this dredging is all done by plough dredging, some of the coarser sediment will remain where it is ploughed to, resulting in a bed feature with potential to alter the near shore wave conditions or be dispersed with a portion of it remaining in the local area. Neither of these cases has been assessed in terms of geomorphic impacts.</p>	<p>sediment is highly mobile in the nearshore and it is not plausible that ploughed sediment would remain undispersed in wave conditions sufficient for such a mound to affect the nearshore geomorphology. Regarding coarsening of sediment, the bars are sand only, so we cannot see a mechanism for coarsening at any detectable level and certainly not at one that would affect geomorphology or bottom friction and the passage of waves.</p>	<p>typically disturbs the remaining material to some extent. MMO have noted the potential issue with ploughed sediment remaining resistant to rapid dispersal above. It is agreed this is likely to be more of an issue for the capital dredge, or for the first maintenance dredge in advance of the season of operations. MMO still recommends looking carefully at the outcome of the initial capital dredge. If it can be confirmed that material all disperses then the issue is dealt with.</p> <p>MMO advises that additional surveys 3 months and 6 months after the initial capital dredge should be undertaken to monitor this (See comment MMO-107 above).</p>
<p>5.1.10 The MMO notes that for p.20.12.15, some dredging will be required. During these periods of dredging, bathymetric monitoring is required for the berth pocket, the area where the sediment is ploughed to and the inner longshore bar. This monitoring will cover the uncertainties described in p.20.8.22. The MMO notes that there is no mitigation proposed for navigational dredging at the BLF. Please see our comments on the Coastal</p>	<p>Note that this topic has been superseded by the DCO changes specified in the ES Addendum, which would remove the need to dredge a grounding pocket, and therefore the matters raised in this comment.</p> <p>The grounding pocket method would only be used occasionally (5-10 years) and for a few weeks, so any impacts will be transient. As described in the ES Addendum, the grounding pocket would</p>	<p>The updates in the ES addendum are noted. The approach to assessing any changes to the outer longshore bar are welcomed. This comment is resolved.</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
Processes Monitoring and Mitigation Plan in section 4.2 of this letter.	infill gradually under summer conditions, however a pre-cautionary condition or trigger will be set in the CMMP to assess the topographic changes in the outer longshore bar, and, if triggered, the mitigation would be to move laterally accumulated dredged sediments back into the grounding pocket.	
5.1.11 The MMO advises that Table 20.6 should be updated to include monitoring that relates to the navigational dredging in the berth pocket, in the area where the sediment is ploughed to, and over the inner longshore bar. Additionally, the tabulated techniques are not consistent with the Coastal Processes Monitoring and Mitigation Plan.	<p>The monitoring stipulated in the ES gives an overview - for details the MMO are referred to the CMMP.</p> <p>However, Table 20.6 gives the techniques that would be used for impacts requiring monitoring by component. Dredging does not need to be added as the monitoring required is already included under the BLF component. Specifically, "bathymetry for subtidal impacts".</p> <p>The reviewer has not made clear what the differences in techniques are, but it is worth noting that CMMP should be given precedence as it will be updated occasionally through the life of the station, and will be substantially updated and finalised in the period prior to marine constructions.</p>	It is agreed the ES is an overview and that the CMMP will take precedence. Comment is resolved.
5.1.12 The MMO advises that Table 20.8 should include loss or change to the substrate in the areas of navigational dredging.	<p>Noted. However, there would be no loss of change in the substrate.</p> <p>If the concern is with respect to</p>	Agreed. MMO will wait for table in CPMMP to be updated.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	disturbance, the text in Table 20.8 does capture the change to topography (i.e., disturbance) are under the impact of <i>Altered hydrodynamics and sedimentation due to dredging and reprofiled bed for BLF access and docking</i> . This comment could be addressed by updating the residual effects table of the CPMMP.	
5.1.13 In relation to section 20.14, the MMO refers you to our comments above on the risk of a change in wave climate over the lifetime of the station (see paragraph 5.1.4).	Noted. Refer also to our responses above MMO-138, 140, 141.	Resolved.
5.1.14 In general, despite the littoral drift to the south, the mitigation ignores potential impacts to the south of SZC. While the MMO recognises that the assessment concentrates on the stretch of the coast to the north of the site because that is a particularly sensitive area, the less sensitive parts to the south should be further considered. This comment applies in general to this whole chapter, although the sensitivity assessment for changes to sediment supply in section 20.14 is welcomed, in particular the sensitivity to a lowered Dunwich Bank.	<p>Whilst the reviewer acknowledges the necessary emphasis on the designated frontage, it is incorrect to say that the frontage south of SZC has been ignored. The evidence assembled at length shows that shingle transport rates are very low and shingle is largely confined to the GSB, meaning that any impacts would also be spatially confined in both directions. The mitigation itself clearly prevents impacts to the neighbouring beaches to south (and north) by maintaining the longshore transport pathway.</p> <p>In addition to the above, MMO-148 has been further superseded by the DCO changes presented in the ES Addendum regarding the SCDF and its maintenance.</p>	The role of the SCDF in supporting sediment supply south of the development is noted. This comment is resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	That is, the only impact (a beneficial one) would be the supply of additional shingle to the frontage during SCDF erosive storm events; the additional sediment would be progressively transported in both directions under gross transport events, but with a slow net travel southwards.	
<b>5.2 Chapter 21 – Marine Water Quality and Sediments</b>  5.2.1 P. 21.3.81 refers to 'combined sources or ammonia', however it is not clear what is meant by combined sources. This should be clarified.	Corrected in Erratum to ES explaining that ammonia from several activities in development may contribute as a source of unionised ammonia	Comment outstanding as we have not seen the Erratum. MMO have reviewed - '6.3 Volume 2 Main Development Site Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] but can not locate Erratum. Please provide the Erratum for MMO to review.
5.2.2 Further clarity is welcome on the models listed in p.21.3.89. For example, it would be useful to have the release version of CORMIX stated here as well as similar information on the provenance of the General Estuarine Transport Model (GETM).	Latest version - section 21.3.90 references Appendix 21E and 21F where more detail provided	No details are given in Appendices 21E or 21F on the details of GETM model (e.g. developers' identity, type, and version used or model setup/calibration). MMO have reviewed TR229 and confirm sufficient detail on the GETM model is provided there, however reference to this in the above Appendices would have been useful. The CORMIX version is quoted in the Appendices. This comment can be considered resolved.
5.2.3 P.21.4.26 on 2014/15 water sampling states that Tables 21.10 and 21.11 show data in 'averages and ranges', however only the averages are provided in these tables.	Addressed in Erratum to ES explained that Table includes data averages only	Comment outstanding as we have not seen the Erratum. MMO have reviewed - '6.3 Volume 2 Main Development Site Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] but can



Relevant Representation Comment	Applicant's Comments	MMO's comments
		not locate Erratum. Please provide the Erratum for MMO to review.
5.2.4 It is noted that p.21.4.29 summarises survey data for metals and polycyclic aromatic hydrocarbons (PAHs). Since metal data is already shown in Table 21.10, it is not clear why there is no similar table for PAHs.	The metals and nutrients data presented in Tables are for 2014/2015. No PAH data were measured for this survey so no Table was shown. However, for the 2010 data information for metals and for PAHs measured in the water are described together in the narrative section (p21.4.29). More detail is provided in the relevant monitoring reports provided as Appendices 21B and 21C	Noted. Comment Resolved.
5.2.5 In p.21.6.37, ammonia is said to be 'rapidly used' in the marine environment. The word 'rapidly' should be defined in the context of likely impacts.	Addressed in Erratum to ES with reference to 'rapid use of ammonia' removed and emphasis made on local conditions of mixing and dilution	Comment outstanding as we have not seen the Erratum. MMO have reviewed - '6.3 Volume 2 Main Development Site Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] but can not locate Erratum. Please provide the Erratum for MMO to review.
5.2.6 P.21.6.70 on acute and chronic Predicted No Effect Concentration (PNEC) for hydrazine does not provide justification for the values used. This paragraph should either provide more explanation of the values or reference the related synthesis report where this can be found. This is important as the basis of the assessment of the impact of hydrazine is made on the choice of these PNECs.	Agree a reference here would help clarity. Section 21.3.2 refers to Topic specific methodology details provided in Volume 1, Appendix 6Q of the ES which covers derivation of PNEC values and references Appendix 21F where full details are provided for hydrazine.	No reference has been added to '6.3 Volume 2 Main Development Site Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] Could this not have been included in the Erratum?
5.2.7 In p.21.6.121 the method to derive the 98th percentiles is not described. It is	Section 21.6.123 and sections after Reference is made to Appendix 21E where	SPP098 has been reviewed and MMO can confirm that this issue is resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
implied that these are generated directly from the GETM model. However, in the synthesis report (and associated feeder reports), it is clear that the 98th percentile is derived by adding the mean monthly uplift due to the plants to the 98th historical seasonal variation. This methodology should be stated clearly in the ES, along with the reason for its use (i.e. the GETM model over predicts peak temperatures). The approach may be precautionary, but the shortcomings of the modelling should be stated here.	a full explanation is provided including further justification in references therein	
5.2.8 P.21.6.137 explains the method used to estimate future peak (98 percentile) sea temperatures. This involves adding the 98th percentile monthly uplift and the 98th percentile historical monthly variation to the mean monthly predicted uplift due to the cooling water streams. Whilst this is stated to be precautionary, no reference is given to justify this.	Section 21.6.134 Reference is made to Appendix 21E where a full explanation is provided including further justification which is also provided in the referenced BEEMS Scientific Position Paper SPP098	SPP098 has been reviewed and MMO can confirm that this issue is resolved.
5.2.9 In relation to p.21.6.173 on acute and chronic PNEC for hydrazine – we have the same comment as stated above in paragraph 5.2.6.	Agree a reference here would help clarity. Section 21.3.2 refers to Topic specific methodology details provided in Volume 1, Appendix 6Q of the ES which covers derivation of PNEC values and also references Appendix 21F where full details are provided for hydrazine.	No reference has been added to '6.3 Volume 2 Main Development Site Chapter 21 Marine Water Quality and Sediments - Revision 2.0' [AS-034] Could this not have been included in the Erratum?

Relevant Representation Comment	Applicant's Comments	MMO's comments
<p><b>5.3 Appendix 21E - Marine Water and Sediment Quality Synthesis (MSR2/6); BEEMS Technical Report TR306 Edition 5.</b></p> <p>5.3.1 In section 4.3.1 there is a narrative description of the expected sediment footprints from the dredging associated with the installation of the cooling water intake and heads. Comments are made that the peak concentrations could be more than 2000 milligrams per litre (mg/l), but are short lived. However, there is no description of how these findings were determined, no details of the modelling, and no graphical or tabular results. In this section, it is implied that the sediment plumes and associated deposition do not result in significant impact, however it is difficult to determine the basis of the findings based on the evidence presented in this report. The MMO advises that further information is provided.</p>	<p>Agree some further detail may have helped clarity in the synthesis but Section 4.3.1 does refer to BEEMS Technical Report TR480, Appendix 22J of the ES (Modelling of Sediment Dispersion of Dredge Material from SZC Construction and Operation) where extensive details of the dredge modelling and the associated results are provided. Re the significance of dredging for water quality this is judged based on the duration, magnitude and extent of SSC elevation compared to the natural background with relevant percentage exceedance quoted.</p>	<p>This comment is about making those linkages to the underlying studies clear in the report and application documents.</p>
<p>5.3.2 The mixing zone definition in section 1.2.2 is specified based on the 2010 guidance. This definition does not state a specific extent, rather the zone is defined as what is acceptable in terms of site-specific impacts. It is not clear how this mixing zone approach is applied in this study. It also makes it difficult to determine whether the</p>	<p>In section 5.3 and 7.3 an explanation is provided of how chemical discharges are initially screened (for construction and operation) according to Environment Agency guidance. Effectively this incorporates the approach to mixing zones and determines when more detailed modelling and ecological assessment are required.</p>	<p>Comment resolved.</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
extent of the footprints presented later are significant or not. Clarifying the appropriateness of this definition is possibly outside the remit of the synthesis report, but it would be useful to clarify how mixing zone criteria have or will be interpreted in the ES.		
5.3.3 In section 7.1 the 98th percentile temperature values have been derived by adding the mean predicted temperature uplift to the observed 98th percentile temperature. This is because the GETM model tends to over-predict the absolute temperature. However, no discussion is presented as to why the GETM model over-predicts or if any sensitivity tests have been carried out to determine the key sources of the over-prediction. Equally there is no discussion as to whether the over-prediction of the baseline temperature has any influence on the predicted uplift. No justification is given to show that adding mean predicted uplift to the 98th observed value is a valid or reliable representation of the future 98th percentile absolute value. The MMO would expect to see a statement that a sensitivity analysis had been carried out to assess the impact of the assumption, with a reference to the relevant feeder report.	Noted. The GETM model has undergone a rigorous calibration and validation process in accordance with EA guidelines. The results are presented in multiple technical reports (see TR229, TR230, TR302). The presentation of which has been presented at multiple MTFs. The models have gone through the multistage approach in accordance with EA guidelines, whom have signed off the suitability of the model. TR301 presents an in-depth analysis of the performance of the model and showed that whilst the model over predicted the absolute temperatures, the excess temperatures performed much better. Details of the sensitivity of the calculation of the 98th percentiles is presented in detail in SPP098.	SPP098 has been reviewed and MMO can confirm that this issue is resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.3.4 In section 7.1.3 potential thermal barriers to fish migration are discussed. The reference to the BEEMS standard for thermal barriers in an estuary is referred to several times in the report, however it is the MMO's view that this is not applicable at the site which is coastal water. Consequently, no analysis has yet been done on thermal barrier as no appropriate assessment method has been defined for coastal waters. It is stated that an analysis will be presented in TR483. This should be included in a revised synthesis report.	Agreed unlike in estuarine systems, thermal standards for occlusion along open coastal systems do not exist. As this issue specifically references tolerance of ecological receptors it was considered appropriate to provide details of a precautionary assessment for thermal tolerance of different species in the Marine Ecology synthesis and in TR483 as referenced here.	Agreed it is not strightdforwad to talk abot thermal barriers in an open coastal system. This comment suggests the BEEMS standards for thermal barriers in an estuary should not be included unless some assessment of this type is undertaken using the thermal tolerance studies. Ongoing for further discussion.
5.3.5 In section 5.4.1 there is no discussion about the selection of the locations of the outfall and intakes. In reviewing the sections on the operational impacts, it would have been useful to know whether the outfall and intake layout used in the assessments has already been optimised to minimise the environmental impact.	The Cooling Water (CW) configuration was optimised to minimise environmental impacts, please see BEEMS technical report TR301 in particular with further support in TR302 for the thermal plume and TR303 for the chemical plume. The technical Appendix 6Q to the Water Quality ES also provides a summary of key points for optimisation in support of the ES.	A view of the reason for the positioning of the CW would be beneficial in the ES if only to exclude alternatives.
5.3.6 Additionally, in section 5.4.1 the CORMIX expert system was used as part of the screening assessment of the discharges from the Combined Drainage Outfall (CDO) to be operated during the construction phase. As the CORMIX analysis is dependent on the geometry of the outfall diffuser or discharge point, the assumption about the CDO design should	Please see Section 4.6.2 in the section wastewater and treated sewage discharge via the CDO where TR193 and Appendices are referenced as providing more detail on the discharge schedule. This includes further detail on CORMIX modelling and plume geometry. re the GETM comment: TR306 and TR193 state that " GETM is a 3D hydrodynamic	Comment resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
have been presented. In the same section, it is implied that the GETM far-field model has dedicated model variables for Zinc and Chromium. It is likely that a conservative arbitrary tracer was used, the results for which were then scaled based on the Zinc and Chromium discharge concentration, however this should be made clearer.	model with an inbuilt passive tracer to represent zinc and chromium." This text is not clear and should have said "GETM is a 3D hydrodynamic model for which a passive tracer was used to represent zinc and chromium." We agree with the MMO comment that Zinc and Chromium are modelled as a conservative passive tracer and scaled according to their respective concentrations.	
5.3.7 Section 5.5.1 on the discharge of ammonia from the CDO, states that 'it is evident from the derived data that there is exceedance of [Environmental Quality Standards] ...'. However, it is the MMO's view that it is not evident to the reader as the observed data are not presented. Additionally, the same section refers to mixing figures to determine the ratio of unionised to ionised ammonia. This is not explained sufficiently to understand what e.g. 96% mixing means.	For this point cross reference is required as indicated "A mixing figure was used to determine the ratio of un-ionised to ionised ammonia as the groundwater and sewage mix with seawater (BEEMS TR193). The derived values were considered in combination with the estimated dilution rates derived from the CORMIX modelling."	This comment has been addressed elsewhere and is resolved.
5.3.8 The MMO advises that it would be useful to include in section 7.3.4 a reference to the relevant feeder report on the derivation of PNEC values for hydrazine.	Agree a reference here would help clarity. However in section 1.2.3.1 chemical standards of relevance to the site refers the reader to TR193 which covers derivation of PNEC values where full details are provided for hydrazine.	As above the comment is about providing clear linkages to the underlying studies in the reports.
<b>5.4 Chapter 22 – Marine Ecology and Fisheries</b> <b>5.4.1 Major comments</b>	Noted with thanks.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.4.1.1 Overall, the MMO consider that the marine ecology topic assessment is generally thorough and robust. The MMO note that the fish impingement and entrainment assessments follow similar methods used in the assessment for Hinkley Point C Nuclear Power Station (HPC). There is likely to be a need for further discussion on the approach to estimating EAVs and stock areas. The MMO is comfortable with the approach EDF has taken in relation to EAVs and stock areas.		
5.4.1.2 More evidence will be required to justify the assumptions on the beneficial effect of the LVSE design in the absence of an AFD system. It is likely that further discussions will be required concerning the design and operation of the FRR system, including monitoring of impingement and FRR survivability. As with HPC, it will be possible to make agreement on these matters a condition of the DCO/DML.	Re LVSE performance see MMO-223 below. The requirement for impingement monitoring is acknowledged.	See further comments under MMO-223. No further work required. Resolved.
5.4.1.3 In relation to EAVs, the extended method which takes account of repeat spawning potential (in contrast to the Applicant's 'core method') inevitably yields higher EAVs for long-lived species such as bass or cod (in the case of bass, estimated to be by a factor of 3 to 5).	We welcome the MMOs review of the EAV approach and agree that for within year assessments the 'core' method is correct.  It is noted that should discussions pertaining to the effectiveness of the LVSE headworks, FRR, or scale of assessment	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
However, the extended method does not take account of fishing mortality. Indicative modelling suggests that this may reduce the extended method EAV for bass by a factor of up to 2, although this is uncertain due to the many assumptions that have to be made in generating an estimate.	require recalculation of effects it may be necessary to consider approaches to population trajectories through time. It should be noted that in almost all fish species the population level effect is <1% with no mitigation measures in place (see TR406.v7).	
5.4.1.4 Conceptually these two methods differ in their age end-point selected for the calculation. The core method equates losses to the number of adult first-time spawners. In contrast the extension method carries losses to the maximum natural life span and consequently would include multiple spawning events.	Spawning production foregone is not an appropriate method as it sums multi-year impact onto a single assessment year.  Methods applicable are akin to stock assessments, examples of which may be achievable for data rich species, however, such approaches are considered a sledgehammer approach considering the scale of impacts predicted.	Resolved.
5.4.1.5 The MMO consider there is no single best method for calculating EAVs in general. While regulators are required to adopt a precautionary approach, care needs to be taken to avoid an over-precautionary approach. The choice of method should be proportionate to the environmental risk and take account of the species likely to be affected. More complex methods may be necessary where simpler methods indicate there is a significant risk. In the context of SZC, entrapment estimates in the draft ES are all generally well below 0.1% of spawning stock biomass (SSB). While a higher estimate was obtained for gobies these are short-lived		Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
species and an extended method would not be appropriate for this species.		
5.4.1.6 On its own, uncertainty concerning the 'best' EAV method to use would not be a reason for requiring additional effort to be expended on the extended method. If there are significant concerns about other elements of the assessment (effectiveness of LVSE in absence of AFD, scale of assessment area) it might be appropriate to suggest to the Applicant to apply the extended method, although once these analyses are completed, decision-making will still require a judgement to be made taking account of the model outputs, analogue evidence from Sizewell B monitoring, proportionality and an appropriate level of precaution.		Resolved.
5.4.1.7 The extended method potentially offers a benefit over the core method as it takes account of repeated spawning by long-lived species. However, the extended method makes additional assumptions which may introduce further unquantified uncertainties in the assessment. In particular, it doesn't take account of fisheries mortality. The core method is a simpler method to apply which is likely to yield slightly lower EAVs for long-lived species. The MMO conclude that both models will be incorrect. The extended		Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
method will yield higher EAVs for long-lived species compared to the core method but also has greater uncertainty associated with it.		
5.4.1.8 The extension method goes beyond the core method by allowing mature fish that are discounted in the core method after spawning to age with their cohort annually, to be subject natural mortality and to contribute to lost EAV again. The extension method is the more precautionary of the two methods, although both assessments are considered precautionary. Recall that the population being modelled is assumed stable and that a lifetimes spawning is on average required for stability. However precautionary, and representative of reality are not the same thing. Which method is likely the most accurate in the real world depends on the local context. For a species subject to high fishing mortality with little probability of reaching a natural lifespan, the core method can be more representative. For a species likely to live out its lifespan, the extension method is likely more representative. Thus, the approach could be species specific. The challenge in either case is the assumption of a stable state is weak. Populations allowing only one spawning event may well be overfished		Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
lacking the extended age structures that provide resilience and dampen impacts of years of poor recruitment. Populations subject to only natural mortality from the historically low stock levels currently seen are likely to increase unless subject to other constraints.		
5.4.1.9 If $EAV > 1$ occurs frequently, this suggests that the extension method is not a suitable representation of the context (either because of issues related to a growing population or because of the interpretation of spawning events) and more complex modelling would be necessary for example, an approach that allows density dependent natural mortality on a population as completion for food or disease transmission become more prevalent. EAVs $> 1$ are not an issue for the core method because the endpoint precludes repeat spawning.		Resolved.
5.4.1.10 Based on the evidence in the draft ES, the MMO do not currently see a justification for application of the extended method as predicted impacts are all small and generally less than 0.1% SSB. If other areas of uncertainty within the assessment are considered significant (scale of assessment area, effectiveness of LVSE intakes in absence of AFD etc) then this might need to be revisited.		Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.4.1.11 The models to assess fish entrapment comprise many elements each of which contains estimates and assumptions which are uncertain. Adopting an over-precautionary approach at each stage will inevitably lead to overestimation of impacts by one or two orders of magnitude. The outputs from such models are therefore not particularly helpful for decision-making even though they may represent 'best available' science.	Noted. TR406.v7 provides a representation of impingement estimates with an without different mitigation measures. It should be noted that in almost all fish species the population level effect is <1% with no mitigation measures in place.	Resolved.
5.4.1.12 We would highlight that it is notable that other key uncertainties are not addressed such as the impact of density dependent mortality increasing survival rates of fish that avoid entrapment, or the extent to which e.g. bass distributions might change following decommissioning of SZB and operation of SZC. It is therefore important that assessment requirements remain proportionate and that weight is given to analogue evidence from the operation of existing once-through cooling plant.	<p>The comment relating to bass distributions following decommissioning of SZB is duly noted and has been considered in more detail in TR406.v7 submitted as part of the supplementary fish pack.</p> <p>The effects of density dependent mortality increasing survival is noted, but effects are anticipated to be indiscernible but allow for a element of precaution in the assessments.</p>	Section 7.2.4 (p97) of TR406v7 provides some evidence that bass densities inshore of the Dunwich Bank are higher than offshore irrespective of the presence of Sizewell B outfall. This indicates that relative impingement at SZC will be lower than at SZB. MMO considers this issue resolved.
5.4.1.13 In relation to the scale of assessment, the MMO notes that the Applicant's advisor Cefas continue to justify the use of ICES stock areas as using the best available evidence. The MMO conclude that the use of ICES stock areas for commercial fish species represents the	Noted with thanks. At the Request of NE an the IFCA a simplified conceptual model of local depletion has been provided. As describe, Cefas maintain the most appropriate way to assess population level effects (on commercial species) incorporating the whole life-history of the	The assessment in SPP103 provides additional evidence supporting the view that local impacts on key fish populations are not significant. However, additional sensitivity analysis is required for demersal species in relation to the effectiveness of the LVSE design and FRR system. This

Relevant Representation Comment	Applicant's Comments	MMO's comments
current best scientific evidence available. There is currently no robust information that would support use of more local stock areas in the assessment. The percentage impact on a stock increases in proportion to the decrease in stock area/size used (the stock area/size is the denominator in the impact calculation). Thus, a ten-fold reduction in the stock area/size used results in a 10-fold increase in estimate impact.	species is to consider the ICES stock units which represents the best available scientific evidence after a consideration of all of the relevant scientific literature.	information should be provided. See more information on this in our comments MMO-349-353.
5.4.1.14 Section 7.8 of Appendix 22I to the Marine Ecology and Fisheries chapter of the ES provides some further reassurance that impacts are not significant, although it is subject to the same potential limitations relating to the various elements of the entrapment assessment.	Noted.	Resolved.
5.4.1.15 Therefore, based on current evidence, the MMO consider that the scale of assessment areas and the method adopted to estimating EAVs is appropriate and proportionate, pending clarification on other uncertainties in the entrapment assessment (e.g. beneficial impact of LVSE system in absence of AFD).	Noted with thanks.	Resolved.
5.4.1.16 Should assessment of the final intake design result in significant (order of magnitude) increases in current estimates of entrapment, then it may be appropriate to consider applying the 'extended method'	Noted, however, assuming a highly unlikely scenario whereby the LVSE affords no beneficial mitigation at all, the mitigation factor would raise from 0.357 to 1, or 2.8 fold.	Based on the final assessment, it is not considered necessary by the MMO to undertake more detailed modelling using the extended method. Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
for estimating EAVs for long-lived species such as bass and cod.	Even in this scenario effects on SSB are <<1%.	
5.4.1.17 The MMO consider the core method is the better in that the end-point age is more likely to be reflective of reality in the context of currently fished seas, and because the MMO consider the extension method, while very precautionary, has conceptual challenges for EAV>1 and problems for comparing to SSB. The MMO is comfortable that all due efforts have been made to secure data at an appropriate scale.	Noted with thanks.	Resolved.
<b>5.4.2 Minor comments</b>  5.4.2.1 All of our comments below on the plankton impact assessment and the benthic ecology assessment are minor.  5.4.2.2 The fish noise assessment is considered sufficiently comprehensive and satisfactory although it would have been helpful for the assessment to estimate the relative temporal exposure of fish within the various impact zones. This would have provided additional context for the worst-case scenario that has been assessed. However, it is noted that this would not have altered the conclusions of the assessment.	Noted.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.4.2.3 The marine mammal noise assessment is considered comprehensive and adequate. However, within the marine mammal assessment there are some minor evidence gaps relating to the toxicity of chemicals used in the construction and operation of SZC to marine mammals.	The assessment used all available references to our knowledge. We note that there might be some minor evidence gaps but we don't know envisage that the outcome of the assessment would be substantially changed.	It is noted that some evidence gaps remain but MMO concurs that these uncertainties do not undermine the assessment that has been made. Resolved.
5.4.2.4 The indirect effects and food webs assessment omits entrainment as a pressure. Given that the plankton assessment indicates that entrainment could have a minor impact on primary production within the Greater Sizewell Bay (GSB), the MMO consider that this impact should be assessed here.	Noted, however the outcome of the assessment is unchanged as the discharge effects on primary production are the main impact to primary production.	Resolved.
5.4.2.5 For the commercial and recreational fisheries assessment, it is not stated whether the hCDF will restrict access during construction. The MMO advises that this should be clarified. Additional clarification of mitigation measures should also be provided.	The omission is noted, within the ES Addendum for the revised marine freight options it has been confirmed that access will not be impeded.  [Stephen the section we wrote on this was cut from the ES Addendum, has anything changed]	Resolved.
5.4.2.6 The mitigation and monitoring section of the chapter is mostly adequate, although would benefit from a thorough quality review to include missing impact pathways, text and inconsistencies with the other sections of the chapter.	Noted, however the ES is finalised and the outcome of the marine ecology and fisheries assessment is unchanged.	Resolved.
5.4.2.7 In relation to p.22.3.92, the MMO seek clarity on why the option to run 2	This scenario was modelled as a theoretically possible worst-case scenario	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
pumps discharging at a higher temperature is not preferred if this results in a lower level of impact compared to running 4 pumps discharging at a lower temperature. Such a mitigation measure would also halve the level of fish entrapment. The MMO presume that it is not considered to be safe to operate in this way for long periods, but this should be clarified.	in terms of thermal discharges during equipment failure. It is not a safe long-term operating mode.	
5.4.2.8 In relation to p.22.5.12 and 22.12.14, the MMO advise that for the final Marine Mammal Mitigation Protocol (MMMP) the guidance from the Joint Nature Conservation Committee (JNCC) (2020) and N. D. Merchant and S. P. Robinson (2020) should be considered. See this guidance listed in our references.	We note the two suggested references with thanks and will consider them for the updated version of the MMMP	Resolved.
5.4.2.9 P.22.4.53 of this chapter and Appendix 22D (page 9) state that there are 88 species of finfish recorded, however the MMO notes that Appendix 22I (TR406) states 91 species of finfish were recorded (page 17, section 2 'Background'). This should be clarified.	The full species list of fin-fish impinged at SZB is indeed 91, the details are provided for each species in TR339.Ed3.	Resolved.
5.4.2.10 P.22.6.124 states that 'To envelope alternative tunnelling methods, assessments considered the use of indicative ground conditioning TBM chemicals.' The MMO advises that there a DCO/DML condition is added requiring specific authorisation of tunnelling	Noted and condition can be added to the draft DML.	MMO note that the condition is still not added to the DML (version 3).



Relevant Representation Comment	Applicant's Comments	MMO's comments
chemicals to be used. This would manage the uncertainty as the subsequent assessments of impacts to fish are all predicated on the use of the same chemicals that are proposed for use at other consented NNB projects. This is also relevant to p.22.8.331 which states 'The use of TBM surfactants in the tunnelling process remains to be confirmed and assessments present a precautionary approach enveloping worst-case representative chemicals'. Furthermore, this is relevant to p.22.9.142 regarding the assessments of impacts to marine mammals which are also predicted on the use of the same chemicals that are proposed for use at consented NNB projects.		
5.4.2.11 In p.22.6.234 the MMO notes that it is unclear whether there are actual differences in mysid density between locations of intakes for SZB or SZC. Appendix 22G (page 9) notes that the difference may be due to sampling; 'This is possibly due to differences in efficiency of sampling gears; species such as mysids can avoid sampling gear with small apertures.'	There were slight differences in relative abundance of mysids, which were detected in lower numbers in offshore sampling. However, as TR318 states, this is possibly due to differences in efficiency of sampling gears; as mysids can avoid sampling gear with small apertures. Mysids were included as key invertebrate zooplankton species and any potential effects on this receptor were assessed in the ES.	Resolved.
5.4.2.12 The MMO assumes that p.22.6.372 should say Appendix 21F instead of 22F, p. 22.8.717 should say	Noted and correct, however the ES is finalised.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
Appendix 21E instead of 22E, and p.22.8.825 should say Appendix 21F instead of 22F.		
5.4.2.13 It is noted that a review of the single non-indigenous species (NIS) recorded during the benthic ecology baseline surveys is provided in the impact assessment (e.g. p.22.7.109, p.22.7.339, p.22.7.515). However, in relation to p.22.7.6 – 22.7.28 and Appendix 22C p.1.4, the benthic ecology baseline does not include a review of the existing non-native species that occur within the study area from either the benthic baseline surveys or a review of wider data sources.	<p>The full benthic datasets (infauna and epifauna) has been reviewed and five INNS are potentially present in the survey area, these include:</p> <ul style="list-style-type: none"> <li>&gt; <i>Austrominius modestus</i> (Cirriped)</li> <li>&gt; <i>Ensis leei</i> (Bivalve)</li> <li>&gt; <i>Eusarsiella zostericola</i> (Ostracod)</li> <li>&gt; <i>Petricolaria pholadiformis</i> (Bivalve)</li> <li>&gt; <i>Crepidula fornicata</i> (Bivalve)</li> </ul> <p>Only one individual of each taxon was found over the seven years of monitoring and all, with the exception of <i>Ensis leei</i>, were juveniles reducing the confidence in identification.</p> <p><i>Ensis leei</i> was considered for the EIA as an adult specimen was identified, furthermore a high abundance of juveniles of the same genus were collected in the GSB meaning there is the potentially of the species to exist in juvenile form.</p> <p>The Barnacle <i>Austrominius modestus</i> is a fouling organism and a potential INNS early coloniser. It is usually found in intertidal areas or the shallow sublittoral. The native barnacle species <i>Balanus crenatus</i> is</p>	Information noted. MMO consider this resolved.

**NOT PROTECTIVELY MARKED**

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>abundant in the intertidal habitat. <i>B. crenatus</i> is an early coloniser and, as indicated in the ES, is likely to settle on new introduced hard habitats and thus limiting the availability of habitat for INNS.</p> <p>The conclusion of the ES remain unchanged.</p>	
5.4.2.14 P.22.8.215 acknowledges that fish in active migration may not avoid the ensonified area and therefore the assessment considers the worst-case scenario in terms of disruption to migratory pathways for fish. However, the MMO would find it helpful for the assessment to provide additional context by taking account of mean swimming speeds and determining the period of exposure within the various mortality/recoverable injury/ temporary threshold shift (TTS) impact zones.	Draft response - Further context will be provided (TR538), however, it should be noted that the tidal nature of the SZC environment and the use of selective tidal transport complicate the issue of residence within ensonified areas beyond swimming speeds.	Noted. TR538 should be provided to MMO to review.
5.4.2.15 In relation to p.22.8.545 the MMO advises that further justification for the FRR survival rates should be provided. This should take account of factors such as FRR design and operation, the specific design of the cooling water intake tunnels, the effect of biofouling on surface roughness of the intake tunnels, and survival following discharge through the FRR outfall.	FRR survival rates are based on EA guidance documents which in turn are based largely upon measured results at Sizewell for Sizewell B. i.e. the results reflect the local mix of species and life stages, not results from completely different species not native to UK waters. SZB's FRR design was in fact a modified trash return system, not an FRR optimised for fish survival and it would be expected that	The MMO note that some uncertainty remains concerning survival rates for FRR given length of intake tunnels, and there is a lack of suitable analogues. However, even assuming 0% survival through FRR for all species, we concur that it would not change the assessment of impact significance. MMO consider this resolved.

SIZEWELL C PROJECT – STATEMENT OF COMMON GROUND  
MARINE MANAGEMENT ORGANISATION

**NOT PROTECTIVELY MARKED**

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>SZC will at least achieve the same levels of survival if not better reflecting the use of system designed from bottom up to minimise fish losses. The FRR values in the EA guidance are mostly lower than those measured in the field and therefore can be considered precautionary. The design of the SZC FRR system will reflect the latest EA guidance on FRR design and will wherever possible be identical to that already approved for HPC. Wherever possible design differences from HPC have already been considered e.g. the SZC design will not incorporate an Archimedes screw which should slightly improve survival rates compared with HPC, the losses from the trash racks to be fitted at SZC have been built into the FRR mortality calculations. The intake tunnels are 6m in diameter and the only biofouling that is likely to occur are soft bodied biota based upon SZB operational survey experience (with no chlorination applied). Contact with the tunnel walls is not considered to be a significant hazard for abstracted biota. The FRR outfalls will be permanently submerged at all states of the tide in waters with low visibility due to high levels of suspended sediment in order to minimise predation risk from birds.</p>	

**NOT PROTECTIVELY MARKED**

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.4.2.16 The uncertainty surrounding the estimate in p.22.8.581 should be recognised. In particular, the extent to which bass might congregate in the vicinity of the SZC outfall, particularly once SZB is turned off.	This comment is noted and has been considered in TR406.v7.	See comment on MMO - 177. Resolved.
5.4.2.17 The MMO advises that in p.22.8.620 and 22.8.622, the significance of the impact should be set in the context of the 40% silver eel escapement target.	Noted, further assessment is provided in SPP104 in relation to worst-case eel assessments.	Analysis in SPP104 addresses comment. Resolved.
5.4.2.18 In relation to p.22.8.646, it is the MMO's view that in the absence of information on the rate at which fish may migrate into the GSB area (the replenishment rate), it is difficult to quantitatively assess localised impacts on abundance. If there was no replenishment from outside of GSB, the rates of impingement would decline as local abundance declined. Survival of remaining fish might increase due to less competition for food (density-dependent mortality is likely to apply to at least some marine species). Given that many marine species exhibit seasonal migrations, it is likely that there would be at least annual replenishment of local stock from the wider stock area. Due to high levels of natural spatial and temporal variability in fish abundance, it is unlikely that monitoring could detect any localised changes.	<p>Noted, we agree with the MMO conclusions on localised changes in light of natural spatial and temporal variability as has been demonstrated by offshore monitoring.</p> <p>At the Request of NE and the IFCA a simplified conceptual model of local depletion has been provided (SPP103), however, the MMO's concerns regarding uncertainty in replenishment rates remain valid. It should be noted that local depletion is anticipated to be orders of magnitude below interannual variability in abundance observed in impingement monitoring.</p>	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.4.2.19 In relation to p.22.9.124, 22.9.131 and 22.9.136 respectively, the MMO notes that no information is presented on the toxicity of dissolved chromium or zinc, un-ionised ammonia, or hydrazine, to marine mammals. It is considered unlikely that the predicted concentrations would be acutely or sub-lethally toxic to marine mammals, but the assessment is currently incomplete as it does not assess direct toxicity pathways.	Noted. Direct toxicity was considered unlikely due to the minimal probability of exposure. Thus, indirect effects through prey consumption were considered more likely.	Resolved.
5.4.2.20 For p.22.10.18 it is unclear how these pressures have been selected. For example, entrainment has been ignored, even though the phytoplankton assessment indicates that primary production within GSB could be affected.	The pressures have been selected based on the conclusions of the individual receptor assessments during the construction and operational phase. Indirect food web effects due to entrainment of phytoplankton are predicted to be minimal as taxa that graze on phytoplankton would be adapted to naturally large variations in phytoplankton standing stock, as provided in Appendix 22H of the ES.	Resolved.
5.4.2.21 In the impingement row in Table 22.114 (page 561) 'No' is missing from the 'Assessed for Food Webs' column. It is the MMO's view that it would be helpful to include some further discussion of the potential for and extent of any local changes in fish populations here.	This comment is duly noted. There is further discussion on the food-web context of impingement losses in TR406.v7 and SPP103.	Additional information provided addresses gap. Resolved.
5.4.2.22 In Table 22.149, it is unclear whether the construction or operation of the hCDF might affect access for commercial	The omission is noted, within the ES Addendum for the revised marine freight	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
or recreational fishers. The MMO advises that this should be clarified.	options it has been confirmed that access will not be impeded.	
5.4.2.23 P.22.11.49 suggests that potting for whelks occurs further offshore but p.22.11.50 suggests that the intake/outfall works (at 3km) are beyond the normal range of <10m potters. These statements appear incompatible as the baseline text indicates that most potting activity is undertaken by <10m vessels. The MMO suggests that further clarification is provided.	pending clarification	MMO awaits clarification.
5.4.2.24 To inform the assessment of significance in relation to p.22.11.91, the MMO advises that the Applicant should clarify whether any exclusion zone will be in place during operation of the cooling water intakes and outfalls or whether exclusion areas will only be applied during maintenance works.	Exclusion zones would only apply during construction and maintenance works. NtM would apply during standard operation.	MMO awaits clarification.
5.4.2.25 In p.22.12.19, the MMO would expect to see reference to establishing a liaison forum with local fishermen and issuing Notice to Mariners in relation to the construction works. These actions are mentioned in the commercial fisheries assessment but not included in p.22.5 or p.22.12.	Issuing Notice to Mariners has been included as primary or tertiary mitigation in the commercial and recreational fisheries assessment (Section 22.11 of the ES) to mitigate for the loss or restricted access to fishing areas. Section 22.12 states that under such circumstances, additional mitigation may be arranged on a case-by-case basis in accordance with current	MMO welcomes that a Fisheries Liaison and Coexistence Plan (FLCP) covering the period of construction and operation will be submitted and this is secured via a DML condition. MMO welcomes a condition for a Notice to Mariners (NtM) to be issued prior to works commencing. NtM should also be issued regularly throughout the construction phase and prior to any maintenance works in the operational

Relevant Representation Comment	Applicant's Comments	MMO's comments
	evidence-based practices. This would be secured by a marine licence condition.	phase (not yet secured in the DML conditions). Additionally, MMO can not see any DML condition for potential 'additional mitigation'. Please can the applicant direct us to the proposed condition. MMO also requests clarity on what additional mitigation would be considered here?
5.4.2.26 In relation to p.22.12.29 the MMO advises that preparation and agreement of a detailed Comprehensive Impingement Monitoring Programme (CIMP) should be a DCO/DML condition. In addition to the monitoring stated in this paragraph, the CIMP should also include monitoring of survival of fish through the FRR and enable monitoring of long-term changes in impingement as a result of climate change.	Noted, however there is uncertainty regarding the effectiveness of FRR survival monitoring, requires further dialogue.	The MMO notes that this is not included in the DCO/DML yet. Further dialogue required on the potential for a Comprehensive Impingement Monitoring Plan to be required.
5.4.2.27 Table 22.155 does not include all the relevant impact pathways that have been assessed. For example, the potential effects of underwater noise and vibration due to dredging activities and impact piling on zooplankton are not included.	Noted, the residual effects of underwater noise and vibration due to dredging activities and impact piling on zooplankton are minor adverse effects (no additional mitigation).	Noted. Resolved.
5.4.2.28 In Table 22.156 (page 609) there appears to be some missing text in the 'Sabellaria spinulosa reef' row and the 'additional mitigation' column.	Noted, the residual effects are minor beneficial (no additional mitigation) for Sabellaria spinulosa from increases in suspended sediment concentration (SSC) following dredging and dredge disposal activities.	Noted. Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
5.4.2.29 In Table 22.157 (page 614) the row describing the BLF construction impact on various fish hearing groups does not include all potential primary or tertiary mitigation. For example, where feasible, piling should be avoided during periods of high water to reduce the potential for underwater noise propagation.	Noted, however the outcome of the residual effects assessment remain the same.	Noted. BLF construction has now changed so this assessment has been superseded by ES addendum. See our comment on this below (MMO-298-364)
5.4.2.30 In relation to the first row 'All fish receptors' in Table 22.162 (page 630), the residual effects should be 'negligible to minor adverse effects'.	The effects of the presence of structures in the operational phase to all fish receptors is negligible (Section 22.8d in ES) and there is no additional mitigation proposed, therefore, residual effects are negligible.	Resolved.
5.4.2.31 Additionally, in the last row of Table 22.162 on page 632 'Demersal fish and elasmobranchs', the assessment of effects says 'minor positive effects' but 'Residual effects' says 'Minor adverse effects'. The MMO suggests clarity should be provided on this.	Noted and correct, the residual effects of organic enrichment on demersal fish and elasmobranchs is minor positive.	Resolved.
5.4.2.32 Similarly, in row 3 of Table 22.163 on page 635 the Assessment of effects says 'negligible effects' but 'Residual effects' says 'Minor adverse effects'. Clarification should also be provided here.	Noted and correct, the residual effects of organic enrichment on harbour porpoise is negligible.	Resolved.
<b>5.5 Appendix 22E - Sizewell Marine Mammals Characterisation (TR324)</b> 5.5.1 In relation to p.4.2.1 the MMO advises that an additional source of baseline information on harbour and grey seal distributions is available from:	We note the reference with thanks. The additional information on seals would enrich the existing characterisation but it would not change the outcome of the assessments.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
<a href="https://data.marine.gov.scot/sites/default/files//SMFS%200825.pdf">https://data.marine.gov.scot/sites/default/files//SMFS%200825.pdf</a>		
5.5.2 The Southern North Sea Special Area of Conservation (SAC) was designated in 2019 and is therefore no longer a candidate SAC (cSAC) as stated throughout this document.	We note this oversight on our part, the change of the SAC status has been missed at the time of the last document update.	The Southern North Sea SAC status should be included in future documents. MMO will wait to confirm this is done.
<b>5.6 Appendix 22F - Review of Commercial and Recreational Fisheries activity in the vicinity of Sizewell Power Station: Edition 3 (TR123)</b> 5.6.1 Section 2.4 references a report by Walmsley et al (2019) that is in preparation. This has presumably been published now, and if so, the MMO advises that the information could be included in the baseline.	Unfortunately this Defra reference remains unavailable.	Resolved.
5.6.2 The MMO advises that the Council Regulation (EU) 2019/124 referenced in section 3.4 has now been superseded.	Noted.	The MMO ask whether this will this be updated in documents?
5.6.3 The final paragraph of section 11.2 suggests that the recreational angling baseline isn't robust and that further work to characterise the baseline is required.	Draft response - the data is sufficient to determine the baseline against which to determine impacts in an EIA context. However, precision in the economic value of the recreational fishery was not attainable. The assessment remains unchanged and this comment was regrettably not contextualised in the report.	Noted. Resolved for MMO comments.
<b>5.7 Appendix 22G - Predictions of Entrainment by Sizewell C in Relation to Adjacent Fish and Invertebrate</b>	Text to be reviewed.	MMO believes this could just be a drafting error in section 3.4. The analysis has been

Relevant Representation Comment	Applicant's Comments	MMO's comments
<b>Populations (TR318)</b> 5.7.1 In section 3.4 the MMO notes the following sentence: 'To obtain estimates of total annual entrainment by species, all samples from a given month were summed and the average entrainment (number per 10 m <sup>3</sup> ) per day was calculated for each month. This number was then multiplied by 4,449,600 to provide estimated entrainment per day for SZB and by 11,392,704 to provide predicted entrainment per day for SZC'. This text is not consistent with step 3 on page 20 where the product is (in our view correctly) divided by 10.		done correctly. We await confirmation from the applicant.
5.7.2 In relation to Table 10, the MMO agrees with the approach taken to calculate EAVs and the conclusions of the assessment.	Noted with thanks.	Resolved.
5.7.3 In relation to Table 12, the MMO is aware that these assessments have been made against percentage SSB thresholds based on stock areas. The MMO agrees with this approach and the conclusions of the assessment.	Noted with thanks.	Resolved.
<b>5.8 Appendix 22I - Sizewell C Impingement Predictions Based Upon Specific Cooling Water System Design (TR406)</b>	Noted. A report has been drafted for provision to MMO	The MMO awaits this report. Current text within TR406 is not considered adequate.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.8.1 Following on from 5.4.1.2 above, a specific assessment of the feasibility of installing and operating AFD at SZC should be provided in this Appendix. While an optimal sound field may require a large number of sound projectors, it is unclear whether a functional system could be established using fewer sound projectors.		
5.8.2 Additionally, for p.3.3.6, the effectiveness of LVSE on its own (without AFD) in reducing relative impingement is unclear. Further evidence should be provided on this matter.	Traditional power stations such as those at SZB have intake surfaces that face into the tidal currents and the intake effectively functions as a trap stretched across the tidal flow except at slack water where they abstract water from all directions. Slack water is a transient short duration event and fish abstraction will then be by chance dependent upon the swimming direction of any fish in the area at the time . Once the tide is running (typically above 0.15m/s)the flow into the head comes increasingly from the intake surfaces facing into the tide. The tidal currents are additive to the intake velocities and any fish swimming within the zone of influence of the intake (which a multiplier of the width of the structure dependent upon the tidal velocity and the effective height of the intake surface is carried into the intake at a velocity that provides little scope for escape except for large fish with greater swimming abilities. With such an intake to reduce fish	Noted. The assessment assumes a behavioural response from fish for which there is limited evidence. A more conservative approach would be to discount beneficial effect of LVSE design in the assessment. The updated TR406 does show potential effect in absence of LVSE design. The MMO are content for this comment to be resolved, as we don't consider any additional work can be undertaken to reduce uncertainty. However please note our comments below MMO-343-364 regarding the supplementary fish reports.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>abstraction the need is to deflect fish out of the tidal flow before they reach the intake. LVSE heads work differently. In principle, there is no intake surface that faces into the tidal flow. Instead there is a shaped nose facing into the flow that is designed to direct the flowing water over the capped intake. The zone of influence of the intake surfaces where fish can be abstracted is then a volume flowing parallel to the intake surfaces. The more linear the flow in this region and the lower the inward velocities into the intake the lower the risk of fish abstraction. The flow fields around the intake surfaces have been designed to meet these criteria, with minimal formation of initial vortexes from the surfaces facing into the tidal flow and inward flow velocities reducing to below 0.1 m/s within approximately 1.5 to 2.5 m from the intake surfaces (SPP099). Such a design is expected on hydrodynamic grounds to reduce fish abstraction compared with the existing SZB design without any assumption of AFDs being present. AFD trials have all been done with conventional heads that face into the tidal flow. It is far from clear what additional benefit would be obtained from the use of AFDs with LVSE intakes and there are no methods to quantify any such benefits. SZC will have 4</p>	

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>intake heads just like HPC and modelling for the HPC project showed that the AFD acoustic fields would interfere with each other creating complex underwater sound fields. There is no operational experience (OPEX) on how fish would behave in such fields. Early experience with AFDs has shown that AFDs can increase fish abstraction if the sound field is inappropriate. However there is no OPEX on how to design an effective sound field for the cooling water head configuration required at SZC which would also substantially reduce confidence in quantifying any additional benefit from AFDs.</p> <p>It is acknowledged that all of the predictions about the performance of AFDs are based on assessment of hydrodynamics and the calculations do not explicitly cover fish behaviour. However, the reason that these designs are in the EA's best practice guidance is that their design principles reflect knowledge of fish behaviour e.g. minimising velocities into the head, avoiding pathways where the fish have no choice but to swim into the intakes by mounting intakes orthogonal to tidal flows and linearising flow along the intake surfaces. Based upon these principles LVSE heads are expected to reduce fish</p>	

Relevant Representation Comment	Applicant's Comments	MMO's comments
	abstraction and as the expected benefit arises from reducing the zone of influence of the heads they do not rely on the presence of AFDs to achieve the expected performance. It is acknowledged that without OPEX the performance benefits of LVSE intakes are uncertain but as stated elsewhere in these responses even without an AFD the fish losses due to SZC will not be significant. The methodology for the loves head performance calculation uses the principles developed by the EA.	
5.8.3 In Table 3, the MMO advises that the estimated percentage age reductions in impingement mortality require further justification.	Not clear what this refers to (there is no section 5.8.3 in the version of TR406 provided at DCO).	Noted. The assessment assumes a behavioural response from fish for which there is limited evidence. A more conservative approach would be to discount beneficial effect of LVSE design in the assessment. The updated TR406 does show potential effect in absence of LVSE design. The MMO are content for our comments on the mater be resolved, as we don't consider any additional work can be undertaken to reduce uncertainty.
5.8.4 In relation to section 5.2, clarification is required for the following text 'Each sample represented the estimated number and weight of fish that would have been impinged during the 24-h period, if the station was working at full capacity (i.e. 4 pumps in operation, which is not always the case during the year).' Upscaling of SZB	The effect of SZB (TR339.Ed.3) and SZC are based on impingement scaled up to account for full operating capacity of both stations. Therefore, the assessment is precautionary. Upscaling SZB impingement overestimates impingement from that station (e.g. the annual average pump use is just above 3) and not the value for 4	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
impingement assumes plant operating at full capacity. This will underestimate actual rates of impingement, which could lead to underestimation of SZC impingement if SZC operates at higher operating capacity than SZB. Therefore, the MMO advises that it would be helpful if the Applicant could provide evidence on the scale of this uncertainty.	pumps quoted in the report. SZC impingement is the full capacity SZB scaled up via the ratio of CW flow rates to SZC and therefore that is not underestimated.	
5.8.5 In relation to Figure 2, it is unclear how uncertainty in each step of the model has been incorporated. The MMO advises that this requires further explanation. For example, a Monte Carlo simulation could be carried out for impingement estimates.	The main source of uncertainty is that derived from the statistics of the SZB impingement estimates. That has been incorporated into the predictions with 95 percentile figures provided. Uncertainty in the LVSE calculation is already built into the assessments - the differences between the 95 percentile and mean values are negligible. FRR mortality estimates are already considered conservative. There are no data to calculate a probability density function around the expected values other than by using data from different countries (i.e. different species and life stages) which would be difficult to justify. In conclusion the uncertainty analysis could be extended but given the small size of the SZC impingement losses, the additional effort to extend the existing uncertainty analyses does not seem proportionate and would not alter effect conclusions.	Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
5.8.6 In relation to section 5.7, the MMO advises that clarification is provided on the detailed design of the FRR system to justify the estimates of FRR survivability.	The design will be as identical as possible to that for HPC whose design has already been approved. The changes to the SZC design, principally the removal of the Archimedes screw will serve to increase fish survival.	Noted. The MMO is content that approval of the design of the FRR by MMO is secured via the DML condition (condition 48 in DML version 3).
5.8.7 FRR survivability will also need to take account of the length of the intake tunnel (compared to SZB) and effects of biofouling of the tunnel lining on FRR survivability. The assessment should also consider survival of fish once discharged from the FRR outfall.	FRR survival rates are based on EA guidance documents and the design of the FRR system will mirror the guidance as far as possible in an attempt to minimise mortality or injury.	See comments on MMO - 196. Resolved.
5.8.8 The argument in section 5.8.1 is considered applicable to commercially targeted species but less so for migratory species where commercial pressure is close to zero. However, the MMO advises that the extended method could be more applicable for migratory fish species where there is considered to be a significant risk to a particular species.	Noted, however, a precautionary EAV of 1 have been applied to shads, river and sea lamprey, sea trout and eel. Commercial fisheries do take some migratory species through by-catch.	Resolved.
5.8.9 In relation to section 5.10.3, given the uncertainty about the most appropriate stock units to use, it would be helpful if the assessment included some sensitivity analysis in relation to the scale of stocks.	Further information regarding stock areas is provided in TR406.v7 and SPP103, however as noted by the MMO the weight of scientific evidence does not justify reducing the stock areas. For migratory species further information about source SACs is considered.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.8.10 In relation to section 5.12 bullet point c., the MMO advises that it may be more appropriate to express this in relation to the available headroom in the silver eel escapement target if this information is available from the EA.	Noted, further work was provided in SPP104 in relation to worst-case eel assessments.	Resolved.
5.8.11 The MMO advises that the evidence in section 7.6 supports the assertion that the Blackwater herring stock is unlikely to comprise a substantial proportion of fish impinged at SZC, but it remains unknown (and unknowable) whether any individuals from the Blackwater stock might be impinged. If it was assumed that Blackwater fish were impinged pro rata this would represent a very small impact on the Blackwater stock.	Noted, pro-rata effects on the Blackwater stock are not considered to be significant.	Resolved.
5.8.12 The MMO notes in relation to section 8.7 that no assessment of entrapment of invertebrates is provided (entrainment plus impingement). This is an omission and should be provided.	Entrapment has been provided on the updated version of TR406 in the supplementary material provided in the January 2021 submission	Resolved.
<b>5.9 Appendix 22J - Modelling of Sediment Dispersion of Dredge Material for SZC Construction and Operation (TR480)</b>  5.9.1 In addition to analysis of the SSC and sedimentation plumes, the sediment modelling considered the intersections between the SSC plume and the	As stated in Section 22.9c of the ES, harbour porpoise are well adapted to existence in turbid coastal waters and are therefore resistant to this pressure.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
designated breeding colonies to allow the Habitats Regulations Assessment (HRA) and ES to assess the potential for indirect effects, whereby marine foraging birds may have reduced ability to capture fish prey. However, in relation to section 3, the MMO notes that it is unclear why a similar analysis has not been done for harbour porpoise (or their prey) which is a designated interest feature of the Southern Northern Sea SAC, located adjacent to the proposed development.		
<b>5.10 Appendix 22L - Underwater Noise Effects Assessment for Sizewell C: Edition 2 (TR312)</b> 5.10.1 In relation to section 2.1.4, the MMO notes that the source level of dredging has been derived from Robinson et al (2012), which measured noise levels generated by a large trailing suction hopper dredger (THSD). At Sizewell C, dredging at the location of the BLF is anticipated to be by plough dredger with cutter suction dredging anticipated at the locations of the infrastructure installations. It is acknowledged that a large TSHD is likely to generate the highest levels of underwater noise and a worst-case assumption has therefore been made in the assessment. However, the MMO advises that it would be helpful for the assessment	Noted, the large TSHD is considered to represent the worst-case scenario as it has the highest levels of underwater noise, the types of dredging proposed at Sizewell would produce lower levels of underwater noise, therefore the worst-case scenario is precautionary for the assessment of effects.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
to explain how a large TSHD is considered to be representative of the proposed dredging activities and to describe the anticipated differences in the underwater noise generated by the types of dredging that are proposed at Sizewell C (see Jones and Marten, 2016).		
5.10.2 Due to the proximity of the proposed development to the Southern North Sea SAC, which is designated for harbour porpoise, the underwater noise assessment will need to take account of the latest guidance on noise management in harbour porpoise SACs that has recently been published by JNCC (2020): JNCC (2020). Guidance on noise management in harbour porpoise SACs 2020. Available at: <a href="https://hub.jncc.gov.uk/assets/2e60a9a0-4366-4971-9327-2bc409e09784">https://hub.jncc.gov.uk/assets/2e60a9a0-4366-4971-9327-2bc409e09784</a>	The document used all available references at the time of writing. The aforementioned guidelines were published after the submission of the document.	Ongoing. MMO will wait to review that the appropriate guidance has been used in the MMMP.
5.10.3 In relation to the Southern North Sea SAC, a Site Integrity Plan demonstrating no impact to the site will need to be submitted to, and approved by, the MMO before the commencement of any construction activities that could affect the integrity of the Southern North Sea SAC. This follows a review of consents undertaken by the SoS for the Department for Business Energy and Industrial Strategy alongside the MMO. More information can be found at: <a href="https://www.gov.uk/government/collections/">https://www.gov.uk/government/collections/</a>	The draft SIP has been prepared and will be submitted to all relevant stakeholders, including MMO.	MMO still awaiting draft SIP. There should be a DML condition that states that a Southern North Sea SIP will be submitted and approved by MMO prior to noisy works commencing. There is no condition on DML (version 3). The standard condition that has been inserted on other DMLs and we recommend is used is as follows: <i>"Site Integrity Plan</i> Prior to the commencement of any activities which produce underwater noise authorised under this licence on or after 28

Relevant Representation Comment	Applicant's Comments	MMO's comments
marine-licensing-nationally-significant-infrastructure-projects		<p>September 2020 a Site Integrity Plan (SIP) must be submitted to, and approved in writing, by the MMO in consultation with the relevant statutory nature conservation body.</p> <p>The SIP submitted for approval must contain a description of the conservation objectives for the Southern North Sea Special Area of Conservation (SNS SAC) as well as any agreed Management Measures and it must set out the key Statutory Nature Conservation Body (SNCB) Advice on Activities within the SNS SAC which could reasonably be expected to impact upon site integrity as a result of the Project, as are set out in the SNCB guidance published in June 2020: Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs Joint Nature Conservation Committee (JNCC) Report no.654, May 2020 ("the Guidance").</p> <p>The MMO will approve the SIP where it is satisfied that the Project, either alone or in combination with other plans or projects, will not exceed the noise thresholds assessed within the Special Area of Conservation Review of Consents Habitats Regulations Assessment ("the HRA"), which are based on the Guidance. Where the MMO cannot be satisfied that</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
		<p>the Project, either alone or in-combination with other plans or projects, will not exceed the thresholds set out in the HRA then the MMO will not approve the SIP.</p> <p>The SIP must be submitted to the MMO for approval no later than 6 months prior to the start of construction unless otherwise agreed with the MMO.</p> <p>In spite of anything to the contrary in any licence or consent, the Project must be carried out in accordance with the approved SIP.</p> <p>The approved SIP may be amended with the prior written approval of the MMO, in consultation with the relevant statutory nature conservation body, where the MMO remains satisfied that the Project, either alone or in-combination with other plans or projects, will not exceed the thresholds set out in the HRA."</p>
5.10.4 In relation to section 6.1.2, the MMO advises that revised noise exposure criteria to predict the onset of auditory effects in marine mammals have recently been published (Southall et al., 2019), but are not reviewed in this Appendix. These criteria evaluate and update the Southall et al. (2007) guidelines in light of subsequent scientific findings. These revised noise exposure criteria support and complement	At the time of the modelling, Southall et al., 2019 was not available. However, the document refers to NOAA, 2018 thresholds which are the same as thresholds and weighting in the Southall et al 2019. Thus the modelling results would not differ.	Agreed. Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
the National Oceanic and Atmospheric Administration (NOAA) (2018) thresholds.		
5.10.5 In relation to section 6.2.2, the MMO advises that the assessment approach for fish does not include any assumptions of behaviour. Fish that are in active migration are unlikely to remain within the cumulative impact zones for 24 hours. It is more likely that migratory fish do not deviate and continue on their swimming path despite the potential adverse conditions, and therefore the assessment should consider the potential cumulative effects for the fish should this occur. Such a consideration should take account of mean swimming speeds and period of exposure within the various mortality/recoverable injury/Temporary threshold shift impact zones.	Further detail on behavioural response assumptions have been included in TR538.	Resolved.
5.10.6 In addition to taking account of JNCC guidelines for minimising the risk of injury to marine mammals from using explosives (JNCC, 2010) in section 8.1.1.1, the Applicant should also consider a recent paper that has been published on underwater noise abatement measures from pile-driving and explosions that complements and builds on the JNCC guidelines (Merchant and Robinson, 2020).	We note the reference with thanks. The reference was not available at the time when modelling was conducted and report written. However, the aforementioned reference will be considered if there a required for the MMMP for removal of explosives.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
5.10.7 The MMO assumes that in section 8.3, the sentence “Drilling has very minor auditory effect zones and is unlikely to have negligible effects on marine mammals or fish” is incorrect and should read “Drilling has very minor auditory effect zones and is likely to have negligible effects on marine mammals or fish.”	We note the wording error. However, the correction cannot be made as the report has been issued as final.	The MMO note that the applicant cannot correct this typographical error. Although it would be preferred to be corrected, it can be considered resolved.
<b>5.11 Appendix 22N - Sizewell C Draft Marine Mammal Mitigation Protocol (MMMP) (TR509)</b> 5.11.1 It is noted that the proposed draft MMMP will be updated once final construction methods have been confirmed and agreed in consultation with relevant Statutory Nature Conservation Bodies (SNCB)s. In addition to taking account of the JNCC guidelines for minimising the risk of injury to marine mammals from using explosives (JNCC, 2010), the Applicant should consider in the final MMMP the latest guidance on noise management in harbour porpoise SACs that has recently been published by JNCC (2020), due to the proximity of the proposed development to the Southern North Sea SAC. The Applicant should also consider a recent paper that has been published on underwater noise abatement measures from pile-driving and explosions that complements and builds on the JNCC 2010	We note the two suggested references with thanks and will consider them for the updated version of the MMMP	MMO will wait to review updated MMMP.



Relevant Representation Comment	Applicant's Comments	MMO's comments
guidelines (Merchant and Robinson, 2020). See both listed in the references.		
<b>5.12 Appendix 22O - Eels Regulations Compliance Assessment</b> 5.12.1 In relation to section 6.1.2, the MMO notes that it is likely further discussion will be required around the FRR design and significance of impact in the context of the 40% silver eel escapement target, in light of recent EA advice on consented NNB projects.	Noted, further work was provided in SPP104 in relation to worst-case eel assessments.	This comment is resolved for the MMO.
<b>5.13 Chapter 24 – Marine Navigation</b> 5.13.1 The MMO advises that the marine components of the proposed development will take place in an area that is actively fished by a small number of local inshore commercial fishing vessels, and a larger number of recreational vessels. These fishers operate relatively close to shore and operate directly from the local beach and nearby ports such as Southwold and Aldeburgh. There are also several windfarms operating off the East Anglian coast, with vessels regularly transiting through the area to undertake construction and maintenance activities. The proposed works and the increase in vessel traffic in the area created by the development are likely to disrupt access to current fishing grounds, cause some	Noted	Ongoing. The MMO, MCA and TH to have further discussions to determine any further mitigation that may be required to manage impacts to marine navigation.

Relevant Representation Comment	Applicant's Comments	MMO's comments
disruption to navigation and create an increased navigational hazard in the area.		
<b>6. Shadow Habitats Regulations Assessment (HRA)</b> <b>6.1 General Comments</b> 6.1.1 The MMO broadly agrees with the conclusions of the Shadow Appropriate Assessment (AA). However, the assessment would greatly benefit from showing more detail around the conclusions drawn and this would allow MMO to agree beyond reasonable scientific doubt with the conclusions. At this stage uncertainty remains. The MMO wishes to highlight the below gaps that must be addressed.	Noted; responses are provided to the comments below.	Resolved.
6.1.2 The MMO agree with the list of European sites that have been screened in on a conservative basis. We also broadly agree with the sites and qualifying interest features 'screened in' for further assessment (Volume 1, Table 5.6). However, this is less clear for mobile species and we note that consideration of effects on some primary habitats and supporting habitats are lacking.	Refer to responses to relevant comments below; we would appreciate further engagement with the MMO following review of these responses.	Resolved.
6.1.3 Additionally, some of the baseline information in Volume 1, Section 6.3 (Birds) is based on data that is ten or more years old. This would benefit from review and update where possible. This is particularly	As referred to in response to the relevant comments, further surveys have been undertaken (and are planned) to update / supplement elements of the baseline data for birds, as follows:	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
the case for species which demonstrate fluctuating trends over relatively short time scales (such as terns).	<ul style="list-style-type: none"> <li>• Wintering waterbirds (gadwall and shoveler): surveys were undertaken of the Sizewell Marshes and Minsmere South Levels over the winter of 2019/20.</li> <li>• Nocturnal surveys for white-fronted goose are being undertaken over the winter of 2020/21.</li> <li>• Breeding waterbirds (avocet, bittern, gadwall, shoveler and teal) (2020).</li> <li>• Surveys of marsh harrier flight activity (2020).</li> <li>• Tern foraging activity surveys (May to August 2020).</li> <li>• Nightjar surveys (May and June 2020).</li> </ul> <p>For the above surveys which have been undertaken, the findings are presented in the Shadow HRA Addendum [Doc. Ref. 5.10Ad] that was submitted to PINS on 11 January 2021.</p>	
6.1.4 The assessment for protected habitats (Volume 1, Section 7), appears to miss some primary habitat and supporting habitat impact pathways.	Refer to responses to relevant comments below.	Resolved.
6.1.5 The MMO broadly supports the assessment in relation to birds (Volume 1, Section 8), but there are some uncertainties concerning the significance of effects of thermal plumes and loss of prey resource for little tern (which have a restricted	Refer to responses to relevant comments below.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
foraging range) and, to a lesser extent, common tern (which forages more widely). The uncertainties relating to changes in prey resource stem from uncertainties concerning estimation of the impact of entrapment on local fish populations which is detailed above in our comments on ES Chapter 22 'Marine Ecology and Fisheries'.		
6.1.6 The MMO considers the marine mammal (Volume 1, Section 9) and migratory fish (Volume 1, Section 10) assessments are robust and we have very few comments.	Noted.	Resolved.
6.1.7 The MMO have minor comments on Volume 2 'Assessment of Alternative Solutions' and Volume 3 'Imperative Reasons of Public Interest'. Our comments primarily relate to minor uncertainties concerning the effects on Natura 200 features highlighted in our comments on the Shadow AA.	Refer to responses to relevant comments below.	Resolved.
<b>6.2 Comments on Volume 1: Screening and Appropriate Assessment Part 1 of 5</b> 6.2.1 In relation to section 3.4.14 regarding in combination effects, the MMO notes that where mobile species are concerned, effects may occur within or outside the boundaries of the designated site and assessments should consider plans or projects that may affect these species throughout their range.	This point is noted and understood. The assessment of in-combination effects does consider other relevant plans and projects regardless of location and, therefore, is not restricted to those plans and projects located within the boundaries of the European sites screened into the Shadow HRA.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.2.2 In relation to section 4.2.16, the MMO advises that seabird foraging ranges have recently been revised and updated (Woodward et al, 2019). The MMO are likely to agree with the conclusion that there is limited potential for significant effect, however the new data should be reviewed and included in this assessment.	<p>We are very familiar with these updates (Woodward et al, 2019) which were published after much of the HRA work was completed. This information will not affect the conclusions of the Shadow HRA in any meaningful way. This aspect of the assessment has been based on the older foraging range estimates of Thaxter et al (2012), with the relevant section of the HRA written before publication of Woodward et al.(2019).,The updates provided in Woodward et al. make no difference to the conclusions reached in the HRA.</p> <p>The updated foraging ranges presented in Woodward et al. mean that the waters adjacent to the Sizewell C Project are now within the mean maximum foraging range of breeding gannet from the Flamborough and Filey Coast SPA, which has increased from 229 km (Thaxter et al. 2012) to 315 km (Woodward et al. 2019) (with the shortest at-sea flight distance between this SPA and the waters adjacent to the Sizewell C Project being c.250 km). However, this difference will not affect the conclusions because, at 250 km distance, the waters around the Sizewell C Project would be, at most, of minor importance to this SPA population during the breeding season (and would comprise such a small</p>	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>part of their foraging range that any effects on prey availability in these waters would be of no consequence to the SPA population).</p> <p>The updates to the foraging range information do not change the status of any other SPA breeding seabird population in terms of whether or not the waters adjacent to the Sizewell C Project occur within the mean maximum foraging range.</p>	
<p>6.2.3 In Table 4.5, the supporting habitat features are not identified in column 4. This results in some potential impact pathways via supporting habitats being missed e.g. in Table 5.6 and, for example, no assessment of the effects of dredging and disposal on supporting habitats of the Outer Thames Special Protection Area (SPA) in section 7. The MMO advises that supporting habitat features must be assessed here.</p>	<p>Table 4.5 is intended to only list the qualifying interest features, with Table 5.6 being a record of qualifying interest features screened in for further assessment.</p> <p>The appropriate assessment chapters subsequently provide the assessment for the screened in qualifying interest features and those sections address any potential effects on supporting habitats. To take the example quoted by the MMO in this comment, section 7 (Coastal, Freshwater and Terrestrial Habitats) does not deal with the Outer Thames Estuary SPA because this site does not have a habitat qualifying feature. However, any relevant effects on supporting habitats for the bird qualifying features of this SPA are addressed in section 8 (Birds).</p>	<p>Resolved.</p>

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.2.4 In relation to section 5.3.3, the MMO notes that it is difficult to follow the audit trail between the appendices and the tables. Some of the statements are unclear as to which sites they apply to and thus which sites have been scoped in/out in relation to the impact pathways for specific features. For example, in Table 5.3, '7 - Direct habitat loss and fragmentation', it is unclear to which sites the statements a) to d) apply. The MMO advises that this is made clearer.	<p>The footnotes to the screening matrices for each European site include direct cross references to each entry in Tables 5.2 to 5.5, which provide the rationale for the screening decisions for each effect pathway.</p> <p>Note that section 5 is the screening assessment (scoping is presented in section 4).</p>	Resolved.
6.2.5 In relation to 'Radiological effects' in Tables 5.2, 5.3, 5.4 and 5.5, the MMO advises that the Applicant should consider the potential impact of accidental releases during construction/decommissioning and operation unless Natural England or the Environment Agency confirm that they are content for this risk to be screened out.	<p>The Environmental Permitting (England and Wales) Regulations 2016 (as amended) place an inherent requirement on operators to prevent uncontrolled, increased, or potentially harmful discharges to the environment, by ensuring equipment that protects the environment is correctly operated and maintained.</p> <p>The issue of accidental radiological releases has not been raised by Natural England or the Environment Agency. It would not be possible to assess this potential effect in any meaningful way as part of the Shadow HRA because the nature of any potential effect would clearly be very dependent on the nature of an accidental release.</p>	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.2.6 In relation to 'Direct habitat loss and fragmentation' in Table 5.2, the MMO notes that in '7a' the stated impact pathway relates to mobile features rather than habitats and associated species. The MMO advises that this impact pathway should only consider direct impacts on protected habitats. Marine construction activities will directly affect supporting habitats within the Outer Thames SPA and Southern North Sea SAC and potentially indirectly affect habitat features in the Minsmere to Walberswick SAC, SPA and Ramsar site. This impact pathway appears to have been ignored in the assessment.	The potential effects on supporting habitat is considered in the Shadow HRA for all relevant European sites. While direct loss of habitat may not be considered significant (e.g. on the bird populations of the Outer Thames Estuary SPA), this pathway has not been ignored, but it is concluded that a likely significant effect can be excluded.  Other effects on supporting habitat are also assessed (e.g. water quality effects in the Outer Thames Estuary SPA).	Resolved.
6.2.7 Additionally, in '7b', there is direct loss and some disturbance of supporting habitat features associated with the Outer Thames SPA and Southern North Sea SAC and potentially indirect effects to habitat features in the Minsmere to Walberswick SAC, SPA and Ramsar site. These impact pathways should both be assessed.	These impact pathways are assessed for supporting habitat for bird and marine mammal qualifying interest features (refer to Tables 5.3 and 5.4).	Resolved.
6.2.8 In relation to 'Disturbance effects on species populations' in Table 5.2, the MMO notes that some marine invertebrates are sensitive to underwater noise. The Minsmere to Walberswick Ramsar site includes mudflat habitat (primarily within the Blyth Estuary) which may contain characterising invertebrate species that are	This potential pathway has not been raised by any organisation during the HRA process as being of concern and, given the distance of the Sizewell C Project to the mouth of the Blyth estuary (approximately 10km) there is no realistic potential for any effect.	Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
sensitive to underwater noise. It is noted that there are no detailed conservation objectives for the Ramsar site and Natural England's advice should be sought as to whether this impact pathway should be assessed in the shadow HRA.		
6.2.9 In relation to 'Physical interaction' in Table 5.2, the MMO advises that characterising species of features such as mudflat within the Minsmere to Walberswick Ramsar site may have pelagic larvae that would be sensitive to entrainment impacts. There is thus a potential impact pathway. Again, it is noted that there are no detailed conservation objectives for the Ramsar site and Natural England's advice should be sought as to whether this impact pathway should be assessed in the shadow HRA.	<p>This potential pathway has not been raised by any organisation during the HRA process as being of concern.</p> <p>The ES (Volume 2, Chapter 22) predicts a very minimal, insignificant losses of zooplankton in Greater Sizewell Bay in the context of natural variability.</p>	Resolved.
6.2.10 The MMO advises that the assessment of 'Disturbance effects on species populations' in Table 5.4 should include harbour and grey seal features.	This point is noted. While Table 5.4 makes reference to harbour porpoise only, the footnotes to the screening matrices for The Wash and North Norfolk Coast SAC (HRA Screening Matrix B1.9) which includes harbour seal as a qualifying feature and the Humber Estuary SAC (HRA Screening Matrix B1.4) which includes grey seal as a qualifying features also refer to this effect pathway in Table 5.4. 'Disturbance effects on species populations' is, therefore, assessed for these species.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.2.11 In relation to 'Water quality effects – marine environment' in Table 5.5, the MMO advises that although water quality would not directly affect the designated sites for fish species, these species are mobile and may be affected by water quality conditions outside the designated sites. If sites are to be screened in for entrapment pressure on species associated with these sites, the MMO suggest they should also be screened in for marine water quality impacts.	<p>Given the closest European site screened into the assessment with migratory fish qualifying interest features is in excess of 160km distant (Humber Estuary SAC), it was concluded that there is no realistic potential for likely significant effect on fish populations due to water quality effects in the marine environment considering the conservation objectives for the SAC.</p> <p>'Physical interaction between species and project infrastructure' was identified as a potential effect pathway given one of the conservation objectives for the SAC relates to the populations of qualifying species and entrapment at Sizewell C has the potential to affect this conservation objective.</p>	Resolved.
6.2.12 In relation to 'Disturbance effects to species populations' in Table 5.5, the MMO advise that mobile features outside of their designated sites may be exposed to underwater noise changes. If sites are to be screened in for entrapment pressure on species associated with these sites, the MMO suggest they should also be screened in for disturbance impacts.	<p>Given the closest European site screened into the assessment with migratory fish qualifying interest features is in excess of 160km distant (Humber Estuary SAC), it was concluded that there is no realistic potential for likely significant effect on fish populations due to disturbance effects in the marine environment considering the conservation objectives for the SAC.</p> <p>'Physical interaction between species and project infrastructure' was identified as a potential effect pathway given one of the conservation objectives for the SAC relates</p>	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	to the populations of qualifying species and entrapment at Sizewell C has the potential to affect this conservation objective.	
6.2.13 The 'recent' population estimates and data referred to in Table 6.1, 6.5 and 6.21 are not very recent. Populations of species such as Sandwich tern fluctuate markedly over time. Consequently, the MMO recommends that up to date estimates (preferably from the last 5 years) are sought from Natural England for all listed species.	<p>Further surveys have been undertaken (and are planned) to update / supplement elements of the baseline data for birds, as follows:</p> <ul style="list-style-type: none"> <li>• Wintering waterbirds (gadwall and shoveler): surveys were undertaken of the Sizewell Marshes and Minsmere South Levels over the winter of 2019/20.</li> <li>Nocturnal surveys for white-fronted goose are being undertaken over the winter of 2020/21.</li> <li>• Breeding waterbirds (avocet, bittern, gadwall, shoveler and teal) (2020).</li> <li>• Surveys of marsh harrier flight activity (2020).</li> <li>• Tern foraging activity surveys (May to August 2020).</li> <li>• Nightjar surveys (May and June 2020).</li> </ul> <p>In relation to the specific points raised, please note:</p> <ul style="list-style-type: none"> <li>• Table 6.1 – Sandwich tern: The latest data as available from the JNCC-hosted Seabird Monitoring Programme database have been presented. There are no more recent data publicly available. The latest year for which data are given is 2009</li> </ul>	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>because there are no records of this species breeding at the Alde-Ore Estuary since then (as stated in the text).</p> <ul style="list-style-type: none"> <li>• Table 6.1 – Little tern: The latest publicly available data have been presented. Although the latest data form little tern is 2013, this species is no longer recognised as a regular breeder at the Alde-Ore Estuary SPA (as stated in the relevant footnote).</li> <li>• Table 6.1 – lesser black-backed gull: The latest data as available from the JNCC-hosted Seabird Monitoring Programme database have been presented. There are no more recent data publicly available.</li> <li>• Table 6.1 – other qualifying features: Count data derived from NE's designated sites database, so are expected to be the most-up-to date that NE have available.</li> <li>• Table 6.5 – little tern: Data presented in table give 5-year mean count for 2014 – 18. The footnote updates with the count for 2019 (which came through as the HRA was being prepared).</li> <li>• Table 6.5 – Other qualifying features: In most cases, count data are a 5-year mean, with the period extending to a relatively recent (oldest 2011/12 – 2015/16). The data are derived either from; (i) NE's designated sites database (so will be most recent that NE have available); (ii) provided</li> </ul>	

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>by relevant land managers of nature reserves within the SPA; or (iii) are most recently available WeBS counts for the non-breeding waterbirds.</p> <ul style="list-style-type: none"> <li>Table 6.21 – All qualifying features: data are derived from NE's designated sites database, so are expected to be the most-up-to date that NE have available. The 5-year means (non-breeding populations) are for the period 2010/11 – 2014/15, so encompass a period within the last 5 years (at time of writing the HRA). These data could only be updated by sourcing the relevant Wetland Bird Survey (WeBS) data from BTO.</li> </ul>	
6.2.14 The MMO advises that sections 6.4.2, 6.4.18 and 6.4.36 should also reference the 2019 Article 17 report, available at: <a href="https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019-species/">https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019-species/</a>		Resolved.
6.2.15 In relation to section 6.5, there is no information provided on twaite shad populations associated with non-UK SACs. The MMO advises this is provided.	This information has subsequently been provided in section 6.5 of the Shadow HRA Addendum [Doc. Ref. 5.10Ad] which was submitted to PINS on 11 January 2021.	Resolved.
6.2.16 In relation to section 7.8.1, and as per our comments above in relation to 'Disturbance effects on species populations' and 'Physical interaction' in Table 5.2, additional impact pathways	Refer to responses to comments raised on paragraphs 6.2.8 and 6.2.9.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
should be considered in relation to the Ramsar site.		
6.2.17 In relation to section 7.8.8, the MMO advises that the site also includes intertidal mudflat primarily within the Blyth Estuary.	Noted	Resolved.
6.2.18 In relation to section 7.8.9, the MMO advises that the assessment should consider mudflat habitat.	The assessment of potential effects of the thermal plume reported for other habitats located within the Minsmere-Walberswick Ramsar site also applied to mudflat habitat. In the coastal waters adjacent to the Ramsar site, the predicted thermal uplift is below the threshold at which further investigation would be required in accordance with recommended thermal standards.	Resolved.
6.2.19 In relation to section 7.8.10, the MMO advises that the assessment should consider the interaction with the Blyth Estuary; Blyth estuary overlaps with the Minsmere-Walberswick SPA and could potentially impact how seawater percolates through sediment to the coastal lagoon at Minsmere.	The response provided in response to the comment raised in paragraph 6.2.18 is also relevant here in relation to the potential for thermal uplift in the coastal waters to affect the coastal lagoon.	Resolved.
6.2.20 In relation to section 8.3.22 it is likely that the terns will forage predominantly along the coast in shallow water rather than offshore. Therefore, the MMO advises that percentages of key foraging area affected by the thermal plumes may be greater than estimated.	For Sandwich (and later common) tern, it should be noted that the assessment has looked at the percentage overlap between the thermal plumes and the foraging range as defined by (i) the mean maximum foraging range and (ii) the mean foraging range.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	<p>As set out in the relevant paragraphs of the assessment, the area defined by (ii) is very much smaller than the full (predicted) foraging range and encompasses an area that is much closer to the colony and comprises a much higher percentage of inshore habitat. The additional prediction of foraging area based on mean foraging range is, therefore, considered suitably precautionary.</p> <p>The statement that the terns will forage predominantly along the coast in shallow water rather than offshore is inaccurate and probably too simplistic. As detailed in para 6.3.27, the generic model of foraging habitat associations for breeding Sandwich terns at UK colonies (Wilson et al 2014), predicts that usage of the area within the mean maximum foraging range will be greatest near-shore but in relatively deep waters and close to the colony. This study could not produce a site-specific habitat-association model for the Alde-Ore Sandwich tern colony because birds have not bred at this colony since the early 2000s, but examination of the site-specific data presented in Wilson et al. for other colonies shows some variation in the preferred areas of usage and the associated explanatory variables. Given</p>	

Relevant Representation Comment	Applicant's Comments	MMO's comments
	this, it is considered that the mean foraging range provides the most suitable proxy for defining a 'core' foraging area around the colony for this SPA population.	
6.2.21 It is unclear from the text what accounts for the differences between the numbers quoted in sections 8.3.24 and 8.3.22. The MMO advises that this is clarified.	<p>The results reported in paragraph 8.3.22 relate to the areas of the thermal plume expressed as a 98th percentile. The results reported in paragraph 8.3.24 are based on the mean and maximum instantaneous plume sizes (as calculated at hourly intervals).</p> <p>The 98th percentile is calculated as the area encompassing 98% of the estimates of the total plume area over the period of the defined Sandwich tern breeding season (April – Aug inclusive). Estimates of the instantaneous plume area have been generated at hourly intervals, so the values used in para 8.3.24 essentially represent the maximum plume area at any one point in time during the Sandwich tern breeding season and the mean plume area over this period.</p>	Resolved.
6.2.22 In relation to section 8.3.99 and as detailed above in our comments on the marine ecology and fisheries chapter of the ES, there are some significant uncertainties surrounding the entrapment estimate relating to limitations of survey data, uncertainties concerning the effectiveness	Noted - see response at Ref. ID MMO 166, 168, 181, 223 and 226	Noted. Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
of LVSE design in reducing impingement, choice of method for EAVs, replenishment rates and density dependent mortality. These uncertainties will need to be worked through in the fish assessment before confirming whether effects of local loss of prey resources for birds might be significant.		
6.2.23 Section 8.3.104 discusses little tern's breeding and foraging areas. The MMO advises that the Applicant should confirm if this information remains accurate.	<p>We confirm this remains accurate and we consider it to be the most relevant information for defining a predicted little tern foraging range in this assessment. The data in the JNCC study upon which this information is based derive from a range of colonies and are considered the most representative data to use for this purpose.</p> <p>Note, although the Woodward et al (2019) review relies on data from another study to define the mean maximum foraging range of the species, these data are specific to a single colony and so are considered less representative (for purposes of applying in a generic way).</p>	Resolved.
6.2.24 In relation to sections 8.3.106 and 8.8.292, the MMO notes that due to the complexities of the plumes and uncertainties concerning their effect on foraging, it is difficult to be completely confident that the increase in plume extent (combined for	It is considered that the conclusions regarding the potential effects of the thermal plumes on the SPA little tern populations are robust, with the justification for this view as set out in the relevant sections of the HRA. However, further discussion on this is welcomed, particularly	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
SZB and SZC) in key foraging areas will avoid adverse effect. This is a matter of fine judgement concerning the level of precaution that should be applied and will require further discussion.	in setting out and giving further consideration to any areas of specific concern.	
6.2.25 In relation to sections 8.3.128 and 8.8.350, and as highlighted in our comments above on the marine ecology and fisheries chapter of the ES, there are some significant uncertainties surrounding the entrapment estimate relating to limitations of survey data, uncertainties concerning the effectiveness of LVSE design in reducing impingement, choice of method for EAVs, replenishment rates and density dependent mortality. These uncertainties will need to be worked through in the fish assessment before the Applicant is able to confirm whether effects of local loss of prey resources for birds might be significant.	Noted - see response at Ref. ID MMO 166, 168, 181, 223 and 226	Resolved.
6.2.26 In relation to sections 8.3.209, 8.8.557 and 8.9.7, and as per the comments above, there remain some uncertainties concerning the significance of the effects of the project alone on little terns associated the Alde-Ore Estuary SPA. Similar uncertainties pertain to the significance of effects on the Ramsar site features discussed in sections 8.4.5 and 8.4.6.	Noted - see also response at Ref. ID MMO 166, 168, 181, 223 and 226	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.2.27 As we have identified uncertainties concerning the significance of effects of the project on its own, there are necessarily also uncertainties concerning the in-combination effect in section 8.3.214 and 8.9.9.	Noted - see also response at Ref. ID MMO 166, 168, 181, 223 and 226	Resolved.
6.2.28 In relation to section 8.8.560, the MMO notes that as the potential for adverse effects on marsh harrier have been acknowledged for the project alone, it is assumed that there also must be potential for adverse effects on marsh harrier in combination (if not alone). Additionally, as there are uncertainties concerning the significance of effects of the project on little tern on its own, there are necessarily also uncertainties concerning the in-combination effect. These uncertainties make it problematic to reach a conclusion on integrity.	<p>The wording of paragraph 8.8.560 is unclear and was intended to conclude that there are no other pathways (beyond noise and visual disturbance) via which the Sizewell C Project could, either alone or in-combination with other plans and projects, result in an adverse effect on the integrity of the Minsmere-Walberswick SPA and Ramsar site.</p> <p>SZC Co. has proposed compensatory measures which it considers are sufficient and appropriate in light of the conclusion of the Shadow HRA with respect to the integrity of the Minsmere-Walberswick SPA and Ramsar site.</p> <p>As noted above, it is considered that the conclusions regarding the potential effects of the thermal plumes on the SPA little tern populations are robust, with the justification for this view as set out in the relevant sections of the HRA. However, further discussion on this is welcomed, particularly in setting out and giving further</p>	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
	consideration to any areas of specific concern.	
6.2.29 In relation to section 8.9.1 and as per our comments above on Table 5.2 'Disturbance effects on species populations' and 'Physical interaction', additional impact pathways should be considered in relation to the Ramsar site.	Refer to responses to comments raised on paragraphs 6.2.8 and 6.2.9.	Resolved.
6.2.30 In relation to 8.10.4, our comments on the Alde-Ore Estuary SPA/Ramsar and Minsmere to Walberswick SPA/Ramsar in relation to little tern also apply to the Outer Thames SPA.	As noted above, it is considered that the conclusions regarding the potential effects of the thermal plumes on the SPA little tern populations are robust, with the justification for this view as set out in the relevant sections of the HRA. In relation to the Outer Thames Estuary SPA, it should also be noted that the little tern colony populations for which there is the potential for effects from the Project comprise only a proportion of the total little tern population for which the SPA provides supporting habitat (with those birds from the Minsmere-Walberswick SPA and Alde-Ore Estuary SPA currently being a very small proportion of this total – e.g. see Table 6.16).	Resolved.
6.2.31 Furthermore, in relation to section 8.10.23, the same concerns that apply to little tern and the effects of thermal plumes on foraging also apply to the common tern, albeit to a lesser extent. Similarly, in relation to section 8.10.45 the same concerns that apply to little tern and the	As for little tern, it is considered that the conclusions regarding the potential effects of the thermal plumes on the Outer Thames Estuary SPA common tern population is robust, with the full justification for this view as set out in the relevant sections of the HRA. It should also be noted that the	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
effects on prey resources also apply to common tern, but again to a lesser extent.	common tern colony populations for which there is the potential for effects from the Project comprise only a proportion of the total common tern population for which the SPA provides supporting habitat (see Table 6.17).	
6.2.32 In relation to section 8.10.6, and as per our comments above, there remain some uncertainties concerning the significance of the effects of the project alone on the little tern and common tern which will require further discussion.	It is assumed this should refer to paras 8.10.68/69?  If so, then the response is as at 6.2.31 concerning the assessment of effects on little (and common) tern populations.	Resolved.
6.2.33 Additionally, in relation to section 8.10.71, due to the uncertainties associated with the assessment 'alone' there are also uncertainties with the in-combination assessment.	As for 6.2.32	Resolved.
6.2.34 In relation to Tables 9.1 and 9.3, hearing damage and disturbance from underwater noise may also affect the population of the qualifying species. This is assessed in the shadow HRA and should be referenced as a potential impact pathway here.	As the comment notes, the effect of underwater noise is assessed in the Shadow HRA.	Resolved.
6.2.35 The MMO advises that the DCO application for Thanet Extension has been refused and this project can be removed from the in-combination assessment in sections 9.4.64, 9.5.74, and 9.6.45.	Noted; the Thanet Extension has been removed from consideration in the Southern North Sea SAC Site Integrity Plan, which was prepared subsequent to the Shadow HRA and submitted to PINS as part of the Shadow HRA Addendum.	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.2.36 The text in section 9.5.19 should reference the most recent JNCC guidance (2020); 'Guidance on noise management in harbour porpoise SACs 2020'. Available at: <a href="https://hub.jncc.gov.uk/assets/2e60a9a0-4366-4971-9327-2bc409e09784">https://hub.jncc.gov.uk/assets/2e60a9a0-4366-4971-9327-2bc409e09784</a>	This guidance was not published at the time of writing the Shadow HRA, but has been referred to in the updated assessment in the Shadow HRA Addendum and in the Southern North Sea SAC Site Integrity Plan, which is appended to the Shadow HRA Addendum.	Resolved.
6.2.37 In relation to section 10.5.12, the MMO advises that the Applicant needs to provide additional information to justify assessments of the effectiveness of the LVSE intakes. However, this will not be material to the conclusions in relation to twaite shad which are supported by the MMO.	Noted - see also response at Ref. ID MMO 181, 223 and 226	Resolved.
6.2.38 The conclusion for habitats in section 11.2.4 is largely supported by the MMO with only minor uncertainties relating to a lack of assessment of the mudflat feature of the Minsmere to Walberswick Ramsar site.	This point is noted. With respect to the mudflat habitat within the Minsmere to Walberswick Ramsar site, refer to responses to comments raised in paragraphs 6.2.8 and 6.2.9.	Resolved.
6.2.39 There remains some minor uncertainty concerning conclusions in section 11.3.5 in relation to birds. These relate to potential effects on little tern (and to a lesser extent, common tern) from thermal plumes and depletion of local prey resources.	As noted above, the conclusions are considered to be robust. However, further discussion on these issues would be welcomed to identify whether there is further assessment work that would help address any remaining uncertainty on these issues.	Resolved.
6.2.40 The conclusions in relation to marine mammals in section 11.4.4, and the conclusions in relation to migratory fish in	This point is noted. The Shadow HRA Addendum (submitted to PINS on 11	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
section 11.5.3 are supported by the MMO. We would however, defer to Natural England on the range of some mobile species such as grey seal, and refer to our comment in 5.10.3 regarding a SIP.	January 2021) includes a Southern North Sea SAC Site Integrity Plan.	
6.2.41 The MMO has no comments on part 2, part 3, or part 5 of the Screening and Appropriate Assessment (AA).	Noted	Resolved.
<b>6.3 Comments on Volume 1: Screening and Appropriate Assessment Part 4 of 5</b> 6.3.1 Our comments above on the main report (Tables 5.2 to 5.5) should also be considered in relation to Appendices B1, B2 and B3. 6.3.2 In relation to Appendix C, Table C1 the MMO advises that the impact of Galloper Wind Farm Limited will not be in the baseline and therefore should not be screened out. This is because although the construction phase will not overlap, the wind farm will be in operation during the construction and operation of SZC. The table should also be updated to remove Vattenfall Wind Power Limited as the DCO for this development has been refused. 6.3.3 Our comments above on the main report (sections 7 to 10) should also be considered in relation to Appendices D1, D2 and D3.	Refer to our responses to comments made on Tables 5.2 to Table 5.5.	Resolved.
<b>6.4 Comments on Volume 2: Stage 3 Assessment of Alternative Solutions</b>	We understand that the project referred to in Appendix C by the MMO is the	Resolved.

Relevant Representation Comment	Applicant's Comments	MMO's comments
6.4.1 It is noted in our comments above on the main report that other significant effects may be identified based on further review and update of the shadow AA. This is relevant to sections 1.1.3, 2.3.1 and 4.2.	<p>construction of the Galloper Operation and Maintenance (O&amp;M) Base at Harwich, as opposed to the wind farm. The O&amp;M base has been constructed and is operational.</p> <p>The expansion of the Galloper Offshore Wind Farm is also referred to in Appendix C (and in the Shadow HRA Report), but no information was available to inform the in-combination assessment.</p>	
<p><b>6.5 Comments on Volume 3: Stage 4 Imperative Reasons of Public Interest</b></p> <p>6.5.1 In relation to section 1.6.5, the MMO advises that the Applicant should consider whether the need is overriding in relation to the potential damage to European sites, and not just in relation to it being imperative.</p>	The 'overriding' element of the Imperative Reasons of Public Interest case is also discussed in Volume 3 and is inherently linked to the discussion regarding need meeting the tests of the 'imperative reasons' argument.	Resolved.
6.5.2 In relation to section 4.3.2, the MMO advises that limited reliance should be placed on the strategic assessment prepared in support of the National Policy Statement (EN-6) because this was a much less detailed assessment than the AA prepared for SZC.	While the comment regarding level of detail within the strategic assessment compared with the Shadow HRA for the Sizewell C Project is noted, the strategic background set by NPS EN-6 is very important context within which the Sizewell C Project needs to be assessed.	Resolved.
6.5.3 In relation to section 9.1.3 and as detailed above, it is not yet clear whether all significant effects have yet been identified in the AA. The extent to which the need is overriding will need to be considered in	As set out in responses to the relevant comments, SZC Co.'s position is that all relevant pathways and effects have been appropriately assessed.	Resolved.



Relevant Representation Comment	Applicant's Comments	MMO's comments
relation to an agreed assessment of the damage to Natura features.		

## APPENDIX C: ADDITIONAL AND ES ADDENDUM COMMENTS

This table provides the position relating to either new comments from the MMO on the May 2020 application or comments on the agreed changes submitted in January 2021 (the ES addendum). SZC Co has provided a response to those provided by MMO by email on 19 March 2021, but not those provided on 26 May 2021 (colour coding for the former differs based on SZC Co's position having provided a response; comment and MMO comments colour code is defined by MMO). Both parties will provide updated responses in the next version of this SOCG.

It should be noted that the MMO position is based on Version 3 of the dDCO as submitted to PINS in January 2021 whereas SZC Co position is based on version 4 as provided to the ExA at Deadline 2.

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Although a number of assumptions and modelling outputs of the updated underwater noise assessment are clearly presented in the ES Addendum, no details are provided on the underwater noise model and input parameters that have been used. <b>The Applicant should confirm if these are the same or any different to what was used for the original ES.</b>		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> The potential underwater noise effects of any mechanical cutting that might be required during the decommissioning of the temporary BLF have not been assessed. <b>The Applicant should confirm that these</b>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>activities will not generate any potential elevated levels of underwater noise that could affect marine fauna.</b>		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> The cumulative effects assessment relating to the combined piling scenario is not clear. No model outputs or evidence are provided to support the statement that the combined effects are less than the worst-case scenarios for individual piling. <b>The Applicant should clarify the worst case piling scenario (potentially 4 piles being installed concurrently) and provide model evidence to support the assessment.</b>		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Paragraphs 2.17.3 and 2.17.4 reference updates that have been made to the assessment of impacts to fish as a result of impingement within the cooling water system. The assessment concludes that none of the DCO changes materially affect the conclusions presented in the original ES. MMO have provided comments on the new and updated fish assessment reports, see comments MMO 343-364 below. While MMO consider that there are some remaining uncertainties relating to the fish		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
impact assessment, and in some areas, a more conservative approach could have been adopted, overall, MMO do not consider that these issues materially affect the conclusions of the assessment.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Section 2.2.57 mentions 25 small bore piles, but no further information provided. Clarification required of pile dimensions and installation methods.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Table 2.44 States that cumulative (24 hour) effects are reduced due to sequencing and maximum 2 piles per day. However, the pile diameter of the dolphin/fenders and hammer energy has increased so evidence should be clearly presented to support this statement.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Within Table 4.5 the number of piles is inconsistent with p16, s2.2.78 which also references 6 x raking piles which may also require percussive piling? Clarification required.		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Section 2.7.18 states that piling will start in August, however this is inconsistent with statement in subsequent sentence that says 'No piling would occur in the months of May to August inclusive'. The Applicant should confirm that there will be no piling in the period May to August inclusive. This mitigation is necessary to avoid risk of adverse effect to piscivorous birds.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> In relation to sections 2.17.41-2.17.46, the outputs of the assessment of the impact magnitude of underwater noise from percussive piling on marine mammals are clearly presented. However, there are no details of the specific model or input parameters that have been used. These are assumed to be the same as in Appendix L of the original ES (Doc Ref. 6.3) [APP-329]) but it would be helpful for the applicant to confirm this.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> In relation to sections 2.17.55-2.17.62 the outputs of the assessment of the impact magnitude of underwater noise from percussive piling on fish are clearly		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
presented. However, as above, there are no details of the specific model or input parameters that have been used. These are assumed to be the same as in Appendix L of the original ES (Doc Ref. 6.3) [APP-329]) but it would be helpful for the applicant to confirm this.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Section 2.17.59 states “Additional mitigation would result in reductions in the auditory effect ranges to 2h for mortality, 4ha for recoverable injury and 84ha for recoverable injury (Table 2.50)”. It is noted that reference to “2h for mortality” should be “2ha for mortality”. It is also assumed that the 84ha that is quoted for recoverable injury is a typographical error and should be the area of TTS effect.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Table 2.52 refers to capital dredging for the grounding project resulting in a pressure that requires further assessment. Section 2.17.104, however, notes “Operational phase deliveries of AILs to the enhanced permanent BLF would require an initial maintenance dredge to create a grounding pocket and allow navigation access over the longshore bar”. It is assumed that reference		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
to “an initial maintenance dredge” is a typographical error and should instead be capital dredge.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> In relation to Table 2.59, the underwater noise of the cutting of any piles and dolphins that are not possible to be removed by vibropiling during the decommissioning process (as per P288, s2.17.22) has not been assessed. The applicant should clarify what levels of underwater noise might be generated by these mechanical cutting activities and confirm if they have the potential to result in an effect on marine fauna.		
<b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b> Please clarify what the following statement in section 2.17.274 means: The following statement is unclear: “A piling restriction to reduce the incidence of marine noise mean no additional piling would occur when mooring dolphins for the enhance permanent BLF are installed. Therefore, the maximum duration for daily overlap between the two BLFs would be six days of piling”.		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol 1.), Chapter 2 [AS-181]</b></p> <p>Table 2.62 states that “The instantaneous and cumulative auditory effect ranges for the combined piling scenario is assessed in this section. The results are smaller than in the case of the worst-case scenarios for individual piling”. However, no model outputs or evidence is provided in the table or in Section 2.17.274 to support this statement.</p>		
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP099 - Predicted performance of the Sizewell C Low Velocity Side Entry (LVSE) intake heads compared with the Sizewell B intakes</b></p> <p>In particular, the assessment infers a benefit in terms of relative levels of fish impingement for SZC compared to SZB. This is predicated on fish displaying a behavioural response to changes in flow. While this is a feasible response, LVSE systems remain a theoretical concept without any practical validation. A more conservative approach for the assessment would be to assume that the LVSE provides no benefit in terms of relative impingement compared to SZB. See MMO's concerns about the methodology detailed below in comments MMO-344-345. In particular, the</p>		



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>method makes assumptions about fish behaviour which cannot be validated.</p> <p>While there are limitations to the modelling assessment, MMO do not consider that there is any additional work that should be undertaken. Even if the benefit of the LVSE design was zero, this would not change the conclusions of the assessment.</p>		
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP099 - Predicted performance of the Sizewell C Low Velocity Side Entry (LVSE) intake heads compared with the Sizewell B intakes</b></p> <p>Please clarify the following points:</p> <ul style="list-style-type: none"> <li>• It is not clear what ANSYS computational fluid dynamics (CFD) modelling was undertaken as no details are provided, what was the model configuration etc;</li> <li>• The Telemac modelling of SZB is over simplified as it is 2D and it assumes flow would be uniformly taken into the central pipe from all directions, whereas flow intake would be heavily biased toward the incident tidal flow direction;</li> <li>• We find the use and reference to scale factors is unclear and is often very difficult to ascertain when the scale factors quoted</li> </ul>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>incorporate an allowance due to the difference in intake rate between the two intakes being considered;</p> <ul style="list-style-type: none"> <li>• We are not persuaded that the use of intercept area is the most meaningful factor determining relative potential for abstracting fish. It is not clear what ANSYS CFD modelling was undertaken as no details are provided, what was the model configuration etc;</li> </ul>		

**ES Addendum (Vol. 3), Chapter 2,  
Appendix 2.17 A [AS-238], Report SPP099  
- Predicted performance of the Sizewell C  
Low Velocity Side Entry (LVSE) intake  
heads compared with the Sizewell B  
intakes.**

There are two clear cases:

A. Fish are inert objects:

In this instance the number of fish entering the intake will be directly related to the volume taken into the intake, irrespective of the size / shape of the intake head. TB006 appears to contradict this and we do not understand this logic.

B. Fish have the ability to swim against an in-flow directed current (assumed to have a 0.3ms-1 threshold):

In this instance it is first important to establish at what distance fish would 'notice' (e.g. hear / see) and then be able to respond to the intake structure. At the distance/location this occurs it is then necessary to determine the 'percentage volume of water' that enters the intake from those areas where the inflow flow speed (normal to inflow direction) is greater than the threshold speed. It is important to consider the % volume, and not the % area at this interface, since, you could have the majority of the flow entering from a relatively small part of the interface surface, where the speed is above the threshold.

The CFD and physical model results reported in the Hinkley C related assessment in 2014 (CW1\_Ver\_3.0\_10Oct2014.pdf ), provides the typical information that would be required to undertake this assessment. This included the distribution of the % flow entering the intake above a range of different flow speeds. The report does not provide the details of the CFD and physical modelling that was undertaken but it is assumed that it was 3D and appropriate.

To examine the effectiveness of the SZC intakes compared to the SZB intakes it would be desirable for similar modelling to be undertaken for both outfall types. This modelling could be done for different incident flow rates, and with slightly miss-aligned flow trajectories, so that the effectiveness over the wider tidal conditions could be examined.

The effectiveness of the intake for reducing fish entrainment within the cooling water intakes, would then need to be considered in line with the other measures included, such as the general siting of the intake off the bed and the capping of the intake.

Based on our understanding of the likely performance of the SZC LVSE intakes, the

relative proportion (i.e. removing any differences related to intake volume from the assessment) of flow entering the intakes at a speed of  $<0.3\text{m/s}$  is likely to be greater than for the SZB intakes. We would thus expect SZC to abstract proportionally fewer fish per cumec than SZB. This, of course, is entirely predicated on the assumption that fish display a behavioural response to changes in flow speed/direction and therefore that proportionally more fish avoid being abstracted within SZC compared to SZB.

Given this uncertainty, the extent of any benefit remains uncertain. A conservative assumption for the purposes of the assessment might be that there is no benefit from the more benign flow environment associated with SZC intakes compared to SZB. We think it is most unlikely that there will be any disbenefit from the LVSE design and therefore would not agree with the application of any scaling factor  $>1$  based on outfall design.

Given that MMO are generally comfortable that the currently assessed levels of potential impact on fish are not significant, MMO do not consider that additional CFD modelling and assessment would be proportionate at this point in time.

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP100 - Estimates of European populations of twaite shad and cucumber smelt of relevance to Sizewell</b> MMO agree with the approach used and with the findings. The revised estimates do not change the conclusions of the SZC ES for these species. MMO do not consider that any further work is required.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP101 - Implications of tidal elevation and temperature on smelt, Osmerus eperlanus, impingement at Sizewell</b> MMO agree with the approach used and with the findings. The findings from the report do not change any of the conclusions presented in the SZC ES. MMO do not consider that any further work is required.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP102 - Use of Spawning Production Foregone Equivalent Adult Values (EAVs) for impingement assessment</b> MMO agree with the findings in the report. As indicated previously, MMO do not currently see any merit in using the Spawning Production Foregone (SPF) EAVs as the method requires additional effort		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
which does not appear warranted given the relatively low levels of impact predicted for SZC. MMO do not consider that any further work is required.		
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP103 - Consideration of potential effects on selected fish stocks at Sizewell</b></p> <p>MMO support the evidence that SZC has put forward in relation to the appropriate scale of assessment area for the 12 fish species. MMO broadly support the findings of the local impact assessment which reinforces the findings of previous assessments of the potential local impacts on fish populations. The assessment is subject to the same limitations as the overall entrapment assessment (see comments on TR406 below). While the challenges of attempting to model such effects inevitably mean that there is considerable uncertainty in the assessments, the sensitivity analysis provides comfort that for key fish species (particularly pelagics that are prey resources for seabirds), local depletions will be small compared to natural interannual variation in abundance.</p> <p><b>MMO advises that a further sensitivity analysis should be carried out for</b></p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>demersal fish assuming zero effectiveness of LVSE design and FRR system.</b> This will help to clarify uncertainties concerning potential local impact on demersal fish and their role in the local ecosystem.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP103 - Consideration of potential effects on selected fish stocks at Sizewell</b> In relation to section 3.2.5.2, and as with comments elsewhere, there is limited evidence to support the LVSE factor applied which is dependent on the behavioural response of fish. It is further noted that the majority of fish entering the cooling water intakes are small and juvenile fish with low swimming speeds and thus less able to avoid areas of accelerating flows.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP103 - Consideration of potential effects on selected fish stocks at Sizewell</b> In relation to Table 6, the values are mortality rates rather than mitigation efficiency values? E.g. FRR value of 1 for pelagics indicates 100% mortality. As with comments elsewhere, there is uncertainty		



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
concerning the effectiveness of the FRR system.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP103 - Consideration of potential effects on selected fish stocks at Sizewell</b> In relation to Table 7 it should be noted that these values make assumptions about the beneficial effects of the LVSE design and FRR system for which there is limited supporting evidence. For demersal fish, local depletion within GSB + tidal excursion is estimated at 6% with mitigation in place. This includes a factor of 6 reduction for LVSE design and FRR system. If more conservative assumptions were made concerning the effectiveness of the mitigation, local depletion would be greater. Some additional sensitivity analysis relating to assumptions on the effectiveness of the mitigation would be helpful.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP103 - Consideration of potential effects on selected fish stocks at Sizewell</b> In relation to section 3.4, the sensitivity analysis should include the effects of taking more conservative assumptions about the		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
effectiveness of the LVSE and FRR mitigation measures (i.e. assume zero effectiveness).		
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP104 - Worst case glass eel entrainment assessment for Sizewell C</b></p> <p>Based on revised entrainment estimates for glass eel, the predicted glass eel entrapment at SZC is estimated to be in the range 0.052% to 0.069% of the Anglian River Basin District Spawning Stock Biomass (SSB). MMO consider this estimate to be reasonable and sufficiently precautionary. MMO do not consider it a major concern that would require the Applicant to undertake any additional survey or assessment for glass eels, given the predicted very low level of impact. However, we defer to the Environment Agency (EA) in their capacity as the responsible authority for fisheries.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP104 - Worst case glass eel entrainment assessment for Sizewell C</b></p> <p>In relation to section 5.1.4, it is recognised that there is some uncertainty concerning the peak period for migration of glass eel in the vicinity of Sizewell and whether the 2015 survey encompassed this period. It is unlikely that peak glass eel densities are typically two orders greater than estimated by the 2015 SZC survey as such an increase in density would have shown up in the 2011 BEEMS survey. If densities were an order of magnitude greater for one-third of a three month migration period, entrainment estimates could be underestimated by a factor of 3. Such a difference would not be material to the assessment conclusions and MMO can therefore be reasonably confident that entrainment (and wider entrapment) of eel will not be significant for SZC.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report SPP108 - Sensitivity of the Alde &amp; Ore Transitional Fish Classification Index (TCFI) to changes in smelt, <i>Osmerus eperlanus</i>, abundance</b></p> <p>MMO considers that the scenarios that have been modelled are quite extreme and beyond the scale of impacts that SZC is predicted to have. The results demonstrate that even with these extreme scenarios, there were no predicted changes in status class for the Alde-Ore TCFI.</p> <p>MMO support these findings and agree that the impact is not significant in relation to the status class for the Alde-Ore TCFI. MMO do not consider that any further work is required.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR339 - Sizewell Comprehensive Impingement Monitoring Programme 2009 – 2017</b></p> <p>This report presents an updated impingement assessment methodology and results based upon suggestions provided by the Environment Agency and resulting from an independent statistical review.</p> <p>The new method uses a bootstrapping process to derive mean annual impingement estimates for each fish/invertebrate species with 95% confidence intervals. The effect of applying this method is that the upper impingement estimates have reduced, in some cases considerably. The effect on mean impingement values is variable with increases for some species and decreases for others. The new method is considered more robust although none of changes in impingement estimates change previous conclusions on the significance of impingement for any species.</p> <p>MMO is content with the approach that has been used. MMO do not consider that any further work is required.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR406: Impingement predictions based upon specific cooling water system design</b></p> <p>This report provides an updated assessment of predicted impingement impacts at SZC for key fish and shellfish species. It also provides an overall entrapment assessment, incorporating results from a separate entrainment assessment. The report also considers local-level effects on the fish assemblage at Sizewell, compliance with WFD requirements in local waterbodies and the effect of climate change on impingement rates.</p> <p>None of the changes to impingement or entrapment estimates change the conclusions in the ES.</p> <p>The assessment makes assumptions about the effectiveness of the LVSE system and Fish Recovery and Return (FRR) system. There is a lack of good evidence to support these assumptions and thus the scale of benefit is uncertain. MMO understands that there isn't any further work that can sensibly be done to reduce this uncertainty.</p> <p>Notwithstanding these uncertainties, the entrapment estimates indicate that even in the absence of LVSE and FRR mitigation measures, only 4 species exceed the 1%</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>threshold: bass, for which density adjustment substantially reduces assessment of impact; sand goby, for which mortality rate &gt;1% SSB is not a concern at population level; thin-lipped mullet, for which value is an artefact of the low level of landings and absence of SSB; and eel, for which the applied EAV of 1 is unrealistically high, and is a species most likely to benefit from the FRR. On this basis, MMO consider there is a good level of confidence that actual impacts to all fish species will not be significant. Therefore MMO support the conclusions of the ES.</p> <p>There is a requirement to apply best available technology (BAT) in the design of the cooling water intakes and FRR system. As with Hinkley Point C there is inevitably some discussion around what might be considered feasible for offshore intakes and outfalls. <b>MMO would like to see more evidence in relation to Acoustic Fish Deterrent (AFD) options (see comment MMO-362 below) before excluding them.</b> However, while an effective AFD might further reduce impingement for some species, the absence of an AFD system should not be an impediment to consenting the project as the impacts without an AFD are not significant.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
MMO support the conclusions of the assessments of local impacts, in relation to the Transitional Fish Classification Index (TFCI) local WFD waterbodies, in relation to shellfish and for climate change which have all been assessed as not significant. MMO do not consider that any further work is required in relation to these.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR406: Impingement predictions based upon specific cooling water system design</b> On page 9, After 12. Conclusion – there appears to be some missing text as the next paragraph starts '51.6 cumecs...' Please clarify/amend.		
<b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR406: Impingement predictions based upon specific cooling water system design</b> In Table 2, Table 3, and sections 6.2 and 6.3, the impact estimates make assumptions about the effectiveness of the LVSE design and the FRR system. MMO note that these assumptions remain uncertain. However, we note that even assuming an extreme case of zero effectiveness, none of the potential impacts would exceed thresholds of potential concern for the MMO.		



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR406: Impingement predictions based upon specific cooling water system design</b></p> <p>In relation to point one on page 16, the assessment of LVSE effectiveness is based on assumptions about fish behaviour for which specific evidence is lacking. See our comments on Report SPP099 above.</p>		
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR406: Impingement predictions based upon specific cooling water system design</b></p> <p>In relation to section 2.3.5 MMO ask whether a smaller number of sound projectors might be installed using higher source level noise? Could you provide more evidence to justify why this option has been excluded? MMO also note that visibility at SZC is variable and is not zero for the whole year. However, even assuming an extreme case of zero effectiveness, none of the potential impacts would exceed thresholds of potential concern. The only exception might be bass if a worst case assumption was made that densities offshore of Dunwich Bank would be similar to those inshore following cessation of SZB. Although MMO consider such a worst case scenario to be very unlikely.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR520: Sizewell C Water quality effects of the fish recovery and return system</b></p> <p>This report assesses potential water quality impacts arising from the discharge of moribund fish and biota through the FRR system. The assessment concludes that impacts are not significant. MMO support the assessment which has been prepared on a very conservative basis. MMO would expect that the great majority of discharged biota will be consumed rapidly by fish, scavenging invertebrates or birds. MMO do not consider that any further work is required.</p>		
<p><b>ES Addendum (Vol. 3), Chapter 2, Appendix 2.17 A [AS-238], Report TR520: Sizewell C Water quality effects of the fish recovery and return system</b></p> <p>In relation to section 2.3 MMO would also note that the NH3 Environmental Quality Standards (EQS) is an annual average, so the assessment includes further conservatism by applying it to the worst case 3 month period.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>5.10 Shadow Habitats Regulations Assessment Addendum [AS-173]</b></p> <p>The updated assessment relating to the enhanced permanent BLF and temporary BLF in the Shadow HRA Addendum support the conclusions of the ES Addendum. MMO ultimately defers to Natural England on HRA matters, however we recommend the following information is provided. As noted above for the ES Addendum (MMO-298-300), the applicant should confirm if the underwater noise model and input parameters are the same or any different to what was used for the original Shadow HRA. The applicant should also clarify if the mechanical cutting activities that may be required during the decommissioning of the temporary BLF will generate any potential elevated levels of underwater noise that could affect marine fauna. In addition, the cumulative effects assessment relating to the combined piling scenario is not clear and evidence to support the statement that the combined effects are less than the worst-case scenarios for individual piling should be provided. See more details in MMO-366-below.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>5.10 Shadow Habitats Regulations Assessment Addendum [AS-173]</b> Table 9.4 states that cumulative (24 hour) effects are reduced due to sequencing and maximum 2 piles per day. However, the pile diameter of the dolphin/fenders and hammer energy has increased so evidence should be clearly presented to support this statement.		
<b>5.10 Shadow Habitats Regulations Assessment Addendum [AS-173]</b> In relation to sections 9.2.8 - 9.2.61 the outputs of the assessment of the impact of underwater noise from percussive piling on marine mammals are clearly presented. However, there are no details of the specific model, input parameters or permanent threshold shift (PTS) and temporary threshold shift (TTS) thresholds that have been used. These are assumed to be the same as those assessed in the previous Shadow HRA Report[AS-145-149] but it would be helpful for the applicant to confirm this.		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>5.10 Shadow Habitats Regulations Assessment Addendum [AS-173]</b> In relation to sections 9.2.8 - 9.2.61 the underwater noise of the cutting of any piles and dolphins that are not possible to be removed by vibropiling during the decommissioning process (as per P288, s2.17.22 of the ES Addendum) has not been assessed. The applicant should clarify what levels of underwater noise might be generated by these mechanical cutting activities and confirm if they have the potential to result in an effect on marine fauna.		
<b>5.10 Shadow Habitats Regulations Assessment Addendum [AS-173]</b> The following statement in section 9.2.40 is unclear: <i>"A piling restriction to reduce the incidence of marine noise mean no additional piling would occur when mooring dolphins for the enhance permanent BLF are installed. Therefore, the maximum duration for daily overlap between the two BLFs would be six days of piling"</i> .		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>Modelling of the Temporary and Permanent Beach Landing Facilities at Sizewell C, Report TR543</b></p> <p>The context for the assessment is the combined bed shear stresses are high for baseline conditions and therefore sediment is generally in motion. The works result in small relative changes to the peak shear stress when judged compared to the baseline. The conclusion is that this means there is no detectable change along the coastline. The changes in the bed stress will, however, change the sediment flux in various areas and therefore some bed change in bed level may occur, albeit further offshore. It is understood that the main focus of the impact assessment is the coastline and designated receptor areas however there remains a gap in understanding the potential for effects of the works on the outer longshore bar and the risk of secondary effects on the coastline. This uncertainty in predicted impacts on the subtidal regions (and outer longshore bar) due to the assessment being based on a consideration of the effect of the project on hydrodynamics via the bed shear stress without a sediment transport model being applied, leads MMO to our various comments on the CPMMP detailed above.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
The changes to the revised permanent BLF will result in an increase in the risk of effects on the outer longshore bar due to the increase in capital dredging into the Outer Bar, and resultant increased maintenance dredging. This is noted in the Additional Submission documents [AS-181] suggesting injection methods may be used to keep the grillage clear of infilled sand. Hence there is an increased risk of interrupting the sediment transport pathway for the Outer Bar without a well thought out sediment management plan. The sediment management plan is not fully detailed yet but MMO recognises that this will be agreed via the CPMMP. This is ongoing for further discussions relating to the CPMMP.		
MMO agrees that the temporary BLF is unlikely to have effects on the shoreline. However, effects close to the structures are likely. More piles will result in more areas of scour. MMO recognises scour caused by the BLF piles will be monitored via the CPMMP. Additionally MMO advises that there is a risk of barges and tugs operating at low water depths close to the Outer Bar so management of the timing of access is important to mitigate this risk. This is ongoing for further discussions relating to the CPMMP.		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
MMO notes that a revised programme of dredging will be required. The Applicant states within AS-181 that the additional dredging required will be similar or less than previously assessed for the BLF, and that dredging was assessed as having only a short-term impact, and no longer term impact on suspended solids concentrations. Therefore, the Applicant concludes that the revised dredging for the BLF will also have no significant long term impact. MMO agrees with this.		
MMO agrees with the Applicant conclusions in AS-181 that due to the infrequent discharge of groundwater via the temporary outfall, there will not be any significant increases in suspended sediment concentration (SSC). MMO notes that cross referencing the surveyed sediment distribution presented here to that used in the modelling would help back up the assumptions used in the modelling study (Report TR543)		



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>8.14 Water Framework Directive Compliance Assessment Report Addendum [AS-279]</b></p> <p>The hydro morphological impacts of the revised permanent BLF and temporary BLF (change 2) reflects the assessment of minimal effects on bed shear stress. As detailed above there remains a risk of localised bed changes around the structures. However, it is agreed that at a water body scale the changes are minor.</p> <p>The risk of changes to the longshore bar due to the permanent BLF should be investigated further although again the impacts may be small on a water body scale. This will be discussed further as part of our comments on the CPMMP.</p> <p>The WFD assessment for Change 2 comes to the conclusion that effects on water quality parameters are likely to be temporary and they would not result in deterioration in water body status under the WFD. MMO notes that this conclusion seems sensible.</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<b>8.14 Water Framework Directive Compliance Assessment Report Addendum [AS-279]</b> The initial WFD assessment screening of the outfall (change 8) found that the temporary discharges are not expected to impact upon the hydromorphology, physico-chemistry or biology of the coastal water body. Therefore, no further detailed WFD assessment was required for this change. This conclusion was made on the basis that the discharge would essentially be of clean surface runoff water that will be treated. Given the assessment in the ES, this conclusion also seems sensible to MMO.		
<b>8.14 Water Framework Directive Compliance Assessment Report Addendum [AS-279]</b> MMO agrees that the proposed changes to the HCDF (Change 9) will not alter the conclusion of the WFD compliance assessment.		
Part 4, 24(6) Where a notice is served under paragraph (5), the owner or occupier of the building or land concerned may, by serving a counter-notice within the period of 10 days beginning with the day on which the notice was served, require the question whether it is necessary or expedient to carry out the protective works or to enter the building or	Noted and updated	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
land to be referred to arbitration under article 80 (arbitration). We note that this is now Article 82.		
Part 6A, 75 The marine licence set out in Schedule 20 is deemed to be granted to the undertaker under Part 4 of the 2009 Act for the licensed marine activities (as defined in section 66 of the 2009 Act) set out in Part 2 of the Schedule, and subject to the conditions set out in Part 3 of the Schedule. We note that this should be licensable marine activities instead of 'licensed marine activities'.	Noted and updated	
Part 6A, 75(a) Appeals procedure in relation to deemed marine licence 75A. Schedule 20A shall have effect. We request that this is removed.	SZC Co considers that this is necessary as explained above.	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 6, 58-61 Lights on marine works etc. during construction</p> <p>58. The undertaker must at or near— (a) any marine work, including any temporary work; or (b) any plant, equipment or other obstruction placed, in connection with any authorised development, within the area of seaward construction activity, during the whole time of the construction, reconstruction, extension, enlargement, replacement or relaying of such work or development, exhibit every night from sunset to sunrise such lights and take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct.</p> <p>Provision against danger to navigation</p> <p>59. In case of damage to, or destruction or decay of, a marine work or any part of it, the undertaker must as soon as reasonably practicable notify Trinity House and must lay down such buoys, exhibit such lights, and take such other steps for preventing danger to navigation, as Trinity House may from time to time direct.</p> <p>Permanent lights on marine works</p> <p>60. After the completion of a marine work the undertaker must, at the outer extremity of it exhibit every night from sunset to sunrise such lights, and take such other steps for the</p>	<p>Articles 58-61 of the DCO deleted and replaced with a DML condition as per Norfolk Vanguard</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>prevention of danger to navigation, as Trinity House may from time to time direct.</p> <p>Safety of navigation</p> <p>61.—(1) No marine works are to be commenced until a scheme to secure safety of navigation has been submitted to and approved by the Marine Management Organisation following appropriate consultation with Trinity House and the Maritime and Coastguard Agency.</p> <p>(2) The approved scheme must make provision for—</p> <p>(a) additional aids to navigation and the reporting by the undertaker of aids to navigation to Trinity House;</p> <p>(b) retention of safety vessels; and</p> <p>(c) the circumstances where Her Majesty's Coastguard should be notified of any matter.</p> <p>(3) The marine works are to be carried out in accordance with the approved scheme except to the extent that a variation to the approved scheme is approved by the persons mentioned in paragraph (1)</p> <p>We flag whether this should this be conditioned in the DML rather than contained within the harbour powers section of the DCO? However please also see our comments on Articles 58-61 in the 'New HEO comments tab'. There could be an</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>'Aids to navigation' condition on DML and all requirements for lighting aids to navigation could be covered by this. This is done for windfarms. For example Norfolk Vanguard's condition:</p> <p><b>Aids to navigation</b></p> <p>10.—(1) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS exhibit such lights, marks, sounds, signals and other aids to navigation, and to take such other steps for the prevention of danger to navigation as Trinity House may from time to time direct. (2) The undertaker must during the period from the start of construction of the authorised scheme to completion of decommissioning seaward of MHWS keep Trinity House and the MMO informed of progress of the authorised scheme seaward of MHWS including the following—</p> <p>(a) notice of commencement of construction of the authorised scheme within 24 hours of commencement having occurred;</p> <p>(b) notice within 24 hours of any aids to navigation being established by the undertaker; and</p> <p>(c) notice within five days of completion of construction of the authorised scheme.</p> <p>(3) The undertaker must provide reports to</p>		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Trinity House on the availability of aids to navigation as set out in the aids to navigation management plan agreed pursuant to condition 14(1)(k) using the reporting system provided by Trinity House.</p> <p>(4) The undertaker must during the whole period from commencement of the licensed activities to completion of decommissioning seaward of MHWS notify Trinity House and the MMO of any failure of the aids to navigation and the timescales and plans for remedying such failures, as soon as possible and no later than 24 hours following the undertaker becoming aware of any such failure.</p> <p>(5) In the event that the provisions of condition 9(11) and condition 9(12) are invoked, the undertaker must lay down such marker buoys, exhibit such lights and take such other steps for preventing danger to navigation as directed by Trinity House.</p>		
<p>Part 1, 1(1) "authorised development" means the development described in Schedule 1 and any other development authorised by the Order that is development within the meaning of section 32 of the 2008 Act;</p> <p>Whilst we note that the interpretation section in the main body of the order is not to apply to the DML, the definitions should be</p>	<p>Definition now included in the DML</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
consistent and this is not the same as the definition that is in the main order.		
<p>Part 1, 1(1) "commence" means beginning to carry out any part of a licensed activity and "commenced" and "commencement" are to be construed accordingly; "condition" means a condition under Part 3 of this licence;</p> <p>Change part to phase - 'beginning to carry out any licensed activity or any phase of licensed activity'</p> <p>Why is NE not defined?</p>	Definition for commence in the DML updated as suggested. NE now written out in full for clarity.	
<p>Part 1, 1(1) "Order land" means the land delineated and marked as such on the Land Plans;</p> <p>Not able to find this term used in the DML so may not need to be included in the interpretation section?</p> <p>Additionally, where are Land Plans defined?</p>	Definition now included in the DML	
<p>Part 1, 1(1) "the Order limits" means the limits shown on the Works Plans within which the authorised development may be carried out;</p> <p>Why are works plans not defined?</p>	Definition now included in the DML	



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 1, 2(3) (3) The MMO Marine Case Management System (MCMS) should be used for all Licence Returns or applications to vary this licence. The MCMS address is: <a href="https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/MMO_LOGIN/login">https://marinelicensing.marinemanagement.org.uk/mmofox5/fox/live/MMO_LOGIN/login</a></p> <p>May wish to add 'unless otherwise advised in writing by the MMO' to the start of this to future proof if in the event MCMS and this link are overtaken by another system.</p>	2(3) amended as suggested.	
<p>Part 2, 3 The provisions of section 72 of the 2009 Act apply to this licence except that the provisions of section 72(7) relating to the transfer of the licence only apply to a transfer not falling within article 9 (Consent to transfer the benefit of the Order) of the Sizewell C (Nuclear Generating Station) Order [202X].</p> <p>This is repeated later in 7A and the two conflict.</p>	3 retained with minor changes and 7A deleted.	
<p>Part 2, 4 4.—(1) Subject to the licence conditions in Part 3 of this licence, this licence authorises the licence holder undertaker to carry out any licensable marine activities under section 66(1) of the 2009 Act which—</p> <p>(a) form part of, or are related to, the authorised development; and</p>	Part 2, 4 updated to mirror Sch 2 para 1(3) and limit it to works that "do not give rise to any materially new or materially different environmental effects to those assessed in the environmental information."	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>(b) are not exempt from requiring a marine licence by virtue of any provision made under section 74 of the 2009 Act.</p> <p>This is really wide, is it not at least to be limited to the extent of the authorised development as was assessed in the ES/HRA?</p>		
<p>Part 2, 4(2) Such activities are authorised in relation to the construction, maintenance and operation of— (a) Work No. 1a(m) — 1A(m) — a permanent Beach Landing Facility (PBLF) comprising—</p> <p>Normally the DCO in Schedule 1 would describe the works packages in detail and then the DML would repeat what those descriptions are in this section. The descriptions in schedule 1 are quite vague. We need to be sure that the descriptions here, in this expanded format, don't go beyond what is to be authorised under the main order.</p>	<p>Interim dDCO updated in accordance with note from HSF on 9 April 2021; subject to MMO and ESC's agreement.</p>	
<p>Part 2, (4)(2)(b)(v) (v) Additional supporting works including the use of a jack-up vessel;</p> <p>What are the additional supporting works?</p>	<p>These have been deleted. The jack-ups would be used to install the described works only, not 'additional works'.</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 2, 4(2)(c)(ii) Replacement of sacrificial sediments comprising sand and shingle, or by pass-pass (movement alongshore), not in exceedance of 120,000m<sup>3</sup> per annum;</p> <p>(iii) Supporting vessel and vehicle movements to redistribute by-pass and/or landscape the material;</p> <p>(iv) Associated groundworks to stabilise and dress the material.</p> <p>What material that will they be replaced with? Is this the replacement of the sacrificial sediments comprising sand and shingle with anything, or the replacement of sacrificial sediments with further sand and shingle. This lacks specificity. Additionally the language needs to be consistent, if we are talking about sacrificial sediments this shouldn't change it to material elsewhere. We find that 'Groundworks' is quite wide, what does this refer to?</p> <p>Furthermore, there are ongoing discussions with East Suffolk Council, MMO and EDF to determine how the sCDF should be placed in the DCO.</p>	<p>Text amended to clarify recharge and by-pass. Groundworks removed as this would only be required above MHWS</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 2, 4 (2)(d)(i)(i) Tunnel, drilled by tunnel boring machine (TBM), of internal diameter 6m and length approximately 3.2km up to 3.km approximately 25m below the seabed at its lowest point;</p> <p>This acronym is mentioned elsewhere, but its not listed in the definition/ interpretation section. We believe drafting convention is that if the term is used only once you don't define it and you use long hand in the condition but if you use it more throughout the Order (which is the case here) it should be defined in the interpretation section and the acronym used throughout.</p>	<p>Definition of TBM added</p>	
<p>Part 2, 4(2)(g)(i) (ii) Disposal of dredged material locally, approximately 500m from the dredge site at a suitable location within the area presented in Part 4 (Table 9);</p> <p>Why is this necessary if you will be disposing the material within the area presented in Part 4, table 9? Also, what is meant by "suitable area", is it the intention that you can deposit it anywhere in the area in part 4, table 9 in which case there is no need to mention suitable here, but if the whole of this area is not able to be used for this disposal, it's better to be more specific as to where it can</p>	<p>To be discussed with MMO.</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
and can't go than to say it can be deposited in suitable places.		
<p>Part 2, 5. Licensable marine activities under section 66(1) of the 2009 Act are authorised in relation to ongoing maintenance activities for the authorised development comprising;</p> <ul style="list-style-type: none"> <li>(a) Inspection of structures;</li> <li>(b) Upkeep of structures;</li> <li>(c) Repair and adjustment to structures;</li> <li>(d) Alteration to structures;</li> <li>(e) Replacement of structures not including the alteration, removal or replacement of foundations;</li> <li>(f) Other required maintenance activities to the extent assessed in the environmental information.</li> </ul> <p>This is very wide. This suggests that you can carry out any licensable marine activity that you want to under the general headings in (a) to (e) and only (f) is limited to the extent assessed in the ES. They should all be limited to the extent assessed in the ES.</p>	<p>"to the extent assessed in the environmental information" moved to apply to (a)- (f)</p>	
Part 2, 6. The activities set out in sub-paragraphs (4)(a) to (4)(m) are authorised in relation to the construction, maintenance and operation of those elements of Work Nos. 1A(m), 1A(n), 1A(o) 1A(bb), and 2K	Noted and 6 amended as suggested.	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
and 2L, and Work Nos. 2A to 2J of Schedule 1 (authorised development) of the Order as defined in paragraph 1 of this schedule, and any further associated development listed in items (a) to (m) in Schedule 1 in connection with Work Nos. 1A(m), 1A(bb), 1A(n), 1A(o) and 2K and 2L and Work Nos. 2A to 2J, which fall within the English inshore region.  May be preferable to state within the Marine Licencing area rather than English inshore region.		
Part 2, 7A. The provisions of section 72 of the 2009 Act apply to this licence except that the provisions of section 72(7) relating to the transfer of the licence only apply to a transfer not falling within article 8 (Benefit of the Order).  What is the need for this in addition to condition 3?	7A deleted.	
Part 2 We cannot find anything in Part 2 "licenced activities" to detail any licensable pre construction monitoring/surveys required. For example removal of sediment sample for environmental monitoring. (Samples that involve removal of more than 1 cubic metre of material). Please confirm if there will be any licensable pre-construction monitoring or surveys. For example related	Noted - collection of sediment samples for dredge/disposal added as licensible activity (m).  Sapling for <i>Sabellaria</i> is non-intrusive / non-licensible	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
to Sabelleria investigations, dredging and disposal.		
<p>Part 3, 8. Should the licence holder undertaker become aware that any of the information on which the granting of this deemed marine licence was based has changed or is likely to change, the licence holder undertaker must notify the MMO at the earliest opportunity and failure to do so may render this licence invalid and may lead to enforcement action.</p> <p>This is not correct and we do not see the purpose of its inclusion. MCAA sets out that it is an offence for a person to make a false statement or a misleading statement about a material particular for the purpose of obtaining a licence in s89. Where such statements are made it does not render the licence invalid (can't be relied on) it allows the MMO to suspend, revoke or vary that permit under s72 of MCAA. The provisions are set out in MCAA and do not need to be repeated here, particularly if they are repeated inaccurately.</p>	Deleted	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 9. Any oil, fuel or chemical spill within the marine environment must be reported to the MMO Marine Pollution Response Team within 12 hours of being identified in accordance with the following—</p> <p>Ideally the timeframe would be 'as soon as is reasonably practicable but in any event no later than 12 hours from the spill being identified.'</p>	Amended as requested	
<p>Part 3, 10. No licensed activity, or phase of that activity, shall commence until a detailed and up-to-date programme of works for that activity is submitted to and approved by the MMO.</p> <p>All approvals should be in writing: '...is submitted to and approved in writing by the MMO'. This applies throughout the licence conditions where approvals are required.</p>	9B provides that all approvals should be in writing so not necessary to repeat throughout.	
<p>Part 3, 11.—(1) The undertaker must submit a detailed method statement (including location of the works) to the MMO for approval. (2) Each licensed activity, or phase</p> <p>The language of conditions should be consistent. So condition 11 (and all other conditions) should be more consistent with the language of condition 10. So you start with 'no licenced activity...'</p>	We consider each condition is clearly drafted and no change is necessary.	



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
Part 3, 12 - 16. It would be useful to group together all relevant conditions relating to notifications and inspections (eg. conditions 12-16) and including a sub heading 'Notifications and Inspections' so that this can be distinguished.	We are happy in principle to move 12-16 into its own section - perhaps between the 'General' and 'Pre-construction' sections? If you are happy with this as the location we will action this in the next draft.	
Part 3, 12.—(1) The local MMO officer must be notified at least 5 days prior to the commencement of any activity or phase of any activity.  Please specify "must be notified in writing".	Amended as requested	
Part 3, 13. Local mariners and fishermen's organisations must be made fully aware of the activity through a local Notice to Mariners. This must be issued at least 5 days before the commencement of the works. The MMO must be sent a copy of the notification within 24 hours of issue.'  'Condition should be updated to cover the operation and maintenance activities. Eg. add in that NtM must be issued at least 5 days prior to any construction activities and planned operations and maintenance activities. - MCA and UKHO should also be sent a copy of the notices within 5 days. - MMO advises that hat the notice to mariners must be updated and reissued at	Being considered	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
regular intervals during construction activities and at least five days before any planned operations and maintenance works. MCA can advise on how often the NtM should be issues during construction. - Please add condition ' The undertaker must notify the UK Hydrographic Office both of the commencement (within ten days), progress and completion of construction (within ten days) of the licensed activities in order that all necessary amendments to nautical charts are made and the undertaker must send a copy of such notifications to the MMO within five days. '		
Part 3, 14 —(1) The undertaker must notify the MMO in writing of any agents, contractors or subcontractors that will carry on any licensed activity listed in this licence on behalf of the licence holder undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity.  Not clear what information is required. Could you change the condition to something along the lines of: .—(1) The undertaker must provide the name and function of any agent or contractor	Amended as requested 14 1) The undertaker must provide the name and function of any agent, contractor or subcontractor that will carry out any licensed activity listed in this license on behalf of the undertaker to the MMO, the Maritime and Coastguard Agency and the UK Hydrographic Office in writing no less than 24 hours before the agent, contractor or subcontractor carries out any licensed activity. (2) Any changes to the name and function of the specified agent, contractor or subcontractor that will carry out the specified licenced activities must be notified to the	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>appointed to engage in the licensed activities to the MMO at least 24 hours before agents and contractors carry out licensed activities. (2) Any changes to the supplied details must be notified to the MMO in writing before the agent or contractor engages in the licensed activities.</p>	<p>MMO, the Maritime Coastguard Agency and the UK Hydrographic Office in writing prior to the agent, contractor or subcontractor carrying out the licensed activity.</p>	
<p>Part 3, 14, (2) The licence holder undertaker 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 subcontractors that will carry on the licensed activity on behalf of the licence holder undertaker.</p> <p>This is difficult to enforce unless the condition stated that you will obtain written confirmation from the contractor that this has been done which must then either be provided to the MMO or kept by the licence holder for the duration of the licence. Also applies to condition 16.</p>	<p>14 and 16 changed to the obligation to be "provided to" which there would be a record of. 14 "The undertaker 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 subcontractors that will carry on the licensed activity on behalf of the undertaker."</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 15 15.—(1) The licence holder undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this licence on behalf of the licence undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company.</p> <p>Again, please add to this '(2) Any changes to the supplied details must be notified to the MMO in writing no less than 24 hours before the vessel engages in the licensed activities.</p>	<p>Amended to be consistent with 14</p> <p>(1) The undertaker must notify the MMO in writing of any vessel being used to carry on any licensed activity listed in this licence on behalf of the undertaker. Such notification must be received by the MMO no less than 24 hours before the commencement of the licensed activity. Notification must include the master's name, vessel type, vessel IMO number and vessel owner or operating company.</p> <p>(2) Any changes to the details of any vessel being used to carry on any licensed activity must be notified to the MMO in writing prior to the vessel carrying out the licensed activities.</p>	
<p>Part 3, 18. The undertaker may not commence each licensed activity, or phase of activity, until the MMO has approved a Marine...</p> <p>MMO thinks this may not be clear enough that the contractor may not commence the activity until this is done. The previous wording is more suitable 'No activity shall commence until....'</p>	<p>Amended as requested:</p> <p>(1) No undertaker may not commence each licensed activity, or phase of activity will be commenced, until the MMO has approved a Marine Environmental Management Plan (MEMP) in relation to that activity or phase of activity.</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, Heading 'During construction, operation and maintenance'</p> <p>Usually conditions are split into sections: pre-construction, construction, and then operation. MMO would prefer the 'During construction, operation and maintenance' section to be split into two distinct sections for construction and operation.</p>	<p>We do not believe that structuring the conditions in the way proposed is workable. The conditions are worded to apply to activities which may span more than one of these phases - for example, dredging (this could take place in all 3 phases). Many of the plans to be approved under the various conditions will deal with more than just one phase.</p>	
<p>Part 3, 21 cooling Water Intake and Outfall Heads, Shafts and Tunnels</p> <p>46. —(1) Work No 2B shall not commence until a Sabellaria monitoring plan has, following consultation with NE, been submitted to and approved by the MMO. The plan must include: (2) geograp</p> <p>'construction of licensable activites' - This wording could be improved. May be clearer to say 'all chemicals used in the construction of the authorised scheme...'</p>	<p>The comment seems incomplete. Can MMO please clarify what it requires.</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 25. The licence holder undertaker must ensure that only treated wash water compliant with the EA Water Discharge Activity Permit may be discharged into the marine environment.</p> <p>We are dealing with licensable marine activities which are those which occur in the UK Marine licensing area so it may be better to use that definition here instead of 'marine environment'?</p> <p>What is meant by 'activities taking place offshore'? Why should offshore be excluded from this?</p> <p>Normally we would include an ML condition to state: 'Waste concrete, slurry or wash water from concrete or cement activities must not be discharged, intentionally or unintentionally, into the marine environment. Concrete and cement mixing and washing areas must be contained and sited at least 10 metres from any water body or surface water drain.'</p> <p>Therefore we would like this detail to be included. This can be reworded to allow the treated wash water compliant with the permit to be discharged.</p>	<p>Updated 25 "Unless otherwise permitted by the Environment Agency, waste concrete, slurry or wash water from concrete or cement activities must not be discharged into the marine environment. Concrete and cement mixing and washing areas must be contained and sited at least 10 metres from any watercourse or surface water drain."</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
Part 3, 29. The licence holder undertaker must ensure that any rock material used is from a recognised source, free from contaminants and containing minimal fines.  Can it be clarified what is meant by "minimal fines".	Updated to remove reference to minimal fines.	
Part 3, 33. In the event that any rock or sediment material used in the construction of the authorised scheme is misplaced This should be 'authorised development'.	Amended as requested	
Part 3, 33. In the event that any rock or sediment material used in the construction of the authorised scheme is misplaced or lost below MHWS, the licence holder undertaker must report the loss to the District Local Marine Office within 48 24 hours. If the MMO reasonably considers such material to constitute a navigation or environmental hazard (dependent on the size and nature of the material), the licence holder undertaker must endeavour to locate the material and recover or move it to a location where it poses no risk to navigation.  This condition should not include 'or move it to a location where it poses no risk to navigation'. The rock or sediment should be either moved to where it was supposed to be or recovered.	Amended to remove 'or move it to a location where it poses no risk to navigation'.	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 34 (2) The Maintenance Activities Plan must be updated every 5 years commencing from the date of the first plan discharge decision.</p> <p>'discharge decision' - For consistency with the language used elsewhere this could be edited. For example to 'every 5 years beginning on the date on which the plan was approved' or 'from the date the approval of the plan was determined'.</p>	Amended as requested	
<p>Part 3, 34(3) Should the licence holder undertaker be required to undertake additional activities not characterised within the plan, they must submit a further Maintenance Activities Plan to the MMO. This should state that and those further activities cannot be carried out until the MMO has approved the revised plan in writing.</p>	<p>Amended as requested</p> <p><i>(3) Should the undertaker be required to undertake additional activities not characterised within the plan, they must submit a further Maintenance Activities Plan to the MMO for approval before those additional works are commenced.</i></p>	



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 35. – (1) For Works Nos. 1A(m), 2K and 2L, 2B, 2D, 2F, 2G and 2H, 2I and 2J, no phase of any dredging activity shall commence until the activity details have been submitted to and approved by the MMO in relation to the relevant Work No. The details should must include:</p> <p>(a) location of the dredge area for that phase, which may only be located within the areas set out in Part 4 (Tables 2 to 8).</p> <p>(b) start and end dates of that phase of the dredging activity</p> <p>(c) dredging methodology and detailed method statement</p> <p>(d) volume and depth of material to be dredged</p> <p>(e) contractors to be used, and</p> <p>(f) vessels to be used.</p> <p>For 35 e and f- include more details. The name and function of any agent or contractor appointed, and for vessels the the master's name, vessel type, vessel IMO number and vessel owner or operating company.</p>	Amended as requested	
<p>Part 3, 35 (2) Dredging for Works Nos. 1A(m), 2K and 2L, 2B, 2D, 2F, 2G and 2H, 2I and 2J shall be carried out in accordance with the details referred as approved by the MMO.</p>	Amended as requested	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
Amend to 'activity details approved by the MMO'?		
<p>Part 3, 36 (c) Details of the material type proposed for deposition dredge and disposal;</p> <p>Clarification required for "desposition dredge and disposal", does this mean the dredge material and therefore the material to be deposited/ disposed.</p>	Error amended	
<p>Part 3, 39 (b) marine mammal mitigation plan;</p> <p>Appears to have been removed from the DML by accident. This is still required due to impact piling of the BLFs and there should be a condition that states this is required. Please state in this condition that the plan will follow current best practice as advised by the relevant statutory nature conservation bodies.</p>	Included in condition 40. The plan will be available to review and will comply with best practice.	
<p>Part 3, 40 Beach Landing Facilities</p> <p>40.—40. —(1) Development of</p> <p>May be better to replace 'Development' with 'construction of'. This applies throughout DML.</p>	<p>"Development" deleted.</p> <p><i>Work No. 1A(m) and Work No. 1A(bb) shall not commence until the following activity details have, after consultation by the undertaker with ESC, been approved by the MMO.</i></p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 41(1) Soft Coastal Defence Feature (sCDF)</p> <p>41.—(1) Development of Work No. 1A(n) shall not commence until the following activity details have been submitted to and approved by the MMO. The details should include:, after consultation by the undertaker with ESC, been approved by the MMO. The details must include:</p> <p>Usually MMO would control the consultation. Details would be submitted to MMO and we would then consult ESC. Ofcourse if applicant wishes to liaise with ESC prior to submitting information to MMO that is welcome and would usually be beneficial. This applies throughout the dML.</p> <p>There are ongoing disucssions with East Suffolk Council, MMO and EDF to determine how the sCDF should be placed in the DCO.</p> <p>MMO would require more details to be provided such as details on the type of material used.</p>	<p>Interim dDCO updated in accordance with note from HSF on 9 April 2021; subject to MMO and ESC's agreement.</p>	
<p>Part 3, 47.—(1) Work Nos. 2A and 2C shall not commence until estimates of the TBM disposal activity details have been submitted to and approved by the MMO. The details should must include:</p>	<p>Addition made</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>(a) date of disposal; (b) location of the disposal, including depth beneath the sea bed, ; and (c) the materials to be disposed of, including any oil, fuel or chemicals.</p> <p>(c) Should include the amount of any such contaminants as well</p>		
<p>Part 3, 47 (2) The disposal of tunnel boring equipment shall be carried on only in accordance with the approved details.</p> <p>Specifications required- What equipment is being referred to here? Why should equipment be disposed of in the marine area and not on land at a proper disposal facility?</p>	Word "offshore" deleted	
<p>Part 3, 48.(10(a) —(1) Development of Work Nos. 2A to 2J shall not commence until the following activity details have, following consultation by the undertaker with NE and the EA, been submitted to and approved by the MMO. The details shall approved by the MMO in respect of the relevant Work No. The details must include: (a) the location and design (size and shape) of the offshore intake and outfall heads,;</p> <p>Clarifications as to what is meant by offshore here?</p>	Word "offshore" deleted	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Part 3, 48(c) the location and design of the fish recovery and return which shall be in general accordance with the Environment Agency reports referenced in the Environmental Statement (Volume 2, Chapter 2, Section 2.4(d)) unless otherwise agreed in writing by the MMO.; and</p> <p>'In general' is vague. Why should the location and design only be 'in general accordance with the EA reports? MMO preference is that this would state they will be 'in accordance with the EA reports'. There is a caveat that this can be otherwise agreed in writing by MMO so there is room for it to be agreed at a later date that this did not need to be in accordance with those reports.</p>	<p>Amended as requested, but to note the EA reports is more appropriate as the reports themselves do not prescribe details, rather they discuss items for consideration against what evidence is available. Some recommendations may be mutually exclusive. The return for Condition 47 will describe where criteria are and are not met.</p>	
<p>Part 3, 48 (2) Work Nos. 2A to 2J will be installed in accordance with the designs.</p> <p>Instead of 'designs' should this say 'details' as there has been no reference to 'design' in condition 48. Also why has 'approved' been removed? Same for condition 49 (2), 'approved' should remain.</p>	<p>Amended as requested</p>	
<p>Part 3, 50. Drill arisings from Work Nos. 2B and 2D may only be deposited at the sites set out in Part 4 (Table 9).</p> <p>What about if they were deposited on land at</p>	<p>Amended as suggested. Recovery for beneficial use tbc</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
a suitable waste facility? May be better to clarify that they will only be deposited within the UK marine licensing area at the sites set out in Part 4.		
Part 3, 51. —(1) No water abstraction shall commence until a monitoring plan has, after consultation by the undertaker with NE and the EA, (been submitted to and) approved by the MMO. The plan will set out:  'The words 'been submitted to and' should be added back in. They should not have been removed.	Amended as follows: (1) No water abstraction shall commence until a monitoring plan has, a been submitted to and approved by the MMO in consultation with the Natural England and the Environment Agency. The plan will set out	
Article 49 - Second line after "harbour authority" consider changing "must" for "shall". See London Gateway HEO 2008/1261.	"must" is used throughout the DCO to comply with modern drafting conventions.	
Footnotes page 41 - Reference to footnotes – when referencing legislation – space needed after full stop after the "c" c.21 eg. "1987 c. 21". Advise that this is checked for the remainder of instrument	To be checked in next version - thank you	
Article 52 - 52(1) first line Articles 46 to 69 – the numbering on the instrument has changed – 69 (saving for Trinity House) should now be Article 74. Point to note: We have not seen the application of MACAA within a provision in a harbour order before. Are you able to	The numbering should be correct now. In terms of the location of the 'Application of Marine and Coastal Access Act 2009' article, this seems to us to be appropriately located in the body of the DCO as it relates not just to the DML but any other marine licence granted separately from the DCO. This	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
provide context with reference to a similar provision in a DCO? We highlight whether this provision is better placed within the DML?	drafting approach was taken in the final version of the Wylfa draft DCO.	
Article 53 - After 53(b) where the line begins with "is guilty of..." consider changing to "shall be guilty of..."	changed to "shall be"	
Article 54 - Same as point 7 above after 54(c) where the line begins "must be liable..." Also consider gender neutral drafting in (c) "they" may require rather than "he" may require, and performance of "their" functions" rather than "his". This is applicable to all articles. 54(2) second line "must be guilty..." consider changing to "shall be guilty..."	"must" is used throughout the DCO to comply with modern drafting conventions.	
Article 58 - We query why there is no penalty against the undertaker for failing to comply with the provisions of Article 58(a) and (b)? It is usual to find "lights on works" provisions accompanied by the following provisions: (2) If the Undertaker fails to comply in any respect with a direction given under this article, it will be guilty of an offence and liable on summary conviction to a fine and on conviction on indictment to a fine. (3) It will be a defence for the Undertaker to prove that all due diligence was used to secure compliance with any such direction.	Art 58 now deleted and replaced with a DML condition	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
Article 59 - As in point 11 above, we query the absence of a penalty against the undertakers for failing to comply with the provisions of Article 59 – e.g.: If the undertaker fails to comply with paragraphs (x), it is guilty of an offence and liable—on summary conviction, to a fine; or on conviction on indictment, to a fine. It will be a defence for the Undertaker to prove that all due diligence was used to secure compliance with any such direction.	Art 58 now deleted and replaced with a DML condition	
Article 60 - As with points 11 and 12 (above), we query the absence of a penalty against the undertakers e.g.: • If the Undertaker fails to comply in any respect with a direction given under this article, it will be guilty of an offence and liable on summary conviction to a fine and on conviction on indictment to a fine. • It will be a defence for the Undertaker to prove that all due diligence was used to secure compliance with any such direction.	Art 58 now deleted and replaced with a DML condition	
Article 61 - Point to note- Consider moving provisions relating to the provision of a “Scheme” monitoring movement of vessels (relating to the works authorised by the DCO) to the DML.	Art 58 now deleted and replaced with a DML condition	



Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
Article 63 - Point to note only: Given the long list of purposes for which a byelaw can be made at (a) to (t) this would ordinarily be expected to appear in a schedule on a standalone SI, however under the circumstances, it seems reasonable to list the purposes within the article for ease of reference.	noted	
Article 65 - Consider amending the title to insert "Power to make...." Before "general directions to vessels". In addition, the current provision at (3) "Before giving a direction, or revoking or amending a direction....". This provision as currently drafted does not meet the requirements for a formal procedure for the giving, amending or revoking of a general direction. See recently made harbour orders – See Article 5, Newport, Isle of Wight HRO 2021/139 by way of example of the process required. Consider inserting a new provision after Article 65 (if new provision inserted – will require an entry in "contents" and will affect the numbering in the remaining articles – check cross referencing)	We have changed the title. We are considering art 5 of the Newport HRA.	
Article 68 - Consider amending the heading to "Master's responsibility in relation to directions" to make the position clear to the reader (contents will need to reflect any amendments made).	Amended as requested	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p>Article 69 - Consider amending "The master of a vessel" to "A person who fails to comply with" which widens the scope for enforcement purposes, rather than limiting it to the master of a vessel.</p> <p>In addition, consider separating the provision into two parts to provide clarity on the penalty for non-compliance and the availability of a defence in criminal proceedings. See SI 2021/139 Article 8 for a recently made provision in this regard.</p>	<p>Article 69 amended to "a person"</p>	
<p>Article 70 - 6. In Article 70(3) consider adding "Reasonable" prior to "expenses" in the line with other provisions in the DCO. In addition, consider whether (2) "reasonable inquiry has been made" is sufficiently clear. Consider whether the provision at 70(2) complies with the Home office powers of entry - code of practice? <a href="https://www.gov.uk/government/publications/powers-of-entry-codeof-practice">https://www.gov.uk/government/publications/powers-of-entry-codeof-practice</a></p>	<p>A70(3) updated to say reasonable expenses.</p> <p>Article 70(1) updated. Without prejudice to any other remedy available to the undertaker, if a special direction issued under article 67 (Special directions to vessels) is not complied with within a reasonable time the harbour master may, where practicable and, except in an emergency, reasonable notice has been given to the owner or person appearing to have charge of the vessel, put persons on board the vessel to carry out the direction or may otherwise cause the vessel to be handled in accordance with the direction.</p>	
<p>Article 70 - Consider Article 9 in example SI 2021/139 which provides for the powers of entry to be exercised 48 hours after giving of the special direction (except in an</p>	<p>This is not considered necessary as Article 70 is for the enforcement of special directions. Appropriate notice has been</p>	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
emergency) to ensure compliance with the above code of practice.	given through the special direction publication process.	
Article 73 - Regarding the Beach landing facilities, we understand one is intended to be temporary. The jetty in the Hinkley DCO 2013/648 has a closure provision (see Article 82 which specifies a closure date). Which parts of the project require the use of the beach landing facility? Is there an intention, following completion of specific elements of the project are completed, for the beach landing facility/jetty to be dismantled?	All of the temporary BLF to be removed after construction period. Permanent BLF to remain for operation (and plausibly decommissioning). Requirement 16 requires the temporary BLF to be removed following the completion of the SZC construction works.	
Interpretation Section - On page 10 "marine works" check reference to 1(bb) should it be 1A(bb)?	Amended	
Explanatory note - Additional point to consider – the Explanatory Note should refer to where maps of the project can be accessed – both in hard copy and in electronic form.	The Explanatory Memorandum will sit alongside the DCO when it is granted. All certified documents will be listed in the DCO and certified. The figures which have been used in the assessment are included in the Environmental Statement which will also be certified.	

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b></p> <p>Page 8, Paragraph 1. “The specific timeline is to be confirmed but the indicative earliest start date is assumed to be 2022, with peak construction occurring in 2028. The primary dredge activities are anticipated to occur at approximately this point.” It is unclear, at what point are the disposal operations are going to occur?</p>		
<p><b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b></p> <p>Page 8, Paragraphs 3 and 4. This text on alternative disposal sites should be linked to the consideration of alternatives later in the document. It would be useful to know how close the nearest licensed disposal site is to be clear it is not practical and support the need for a new one.</p>		

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<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Paragraph 4 mentions local disposal as preferred because the sediment is kept in the same sediment system. This is true for the dredging of the surficial material but not for dredging/drilling the bedrock which introduces 'new' sediment to the system.		
<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Table 2. Title should refer to drilling too. It is agreed that the sediment release associated with the drilling is too low to require assessment. Furthermore as it comprises bedrock it is unlikely to be contaminated.		
<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Page 10, 2.1.2 Fate of disposed material.		

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Please clarify that the simulations are of only the disposal operation and that losses from the CSD head are not included. Also it should be made clear that the models are of the excess suspended sediment concentration.		
<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Page 10, Paragraph 3, MMO understands the Technical Report TR480 has this information, but it would be worth clarifying if the simulations are of all the sediment released, not just the fines? Stating the rate of sediment introduction would also help understand the modelled scenarios.		
<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Page 14, Figure 2. The left plot shows maximum sedimentation, presumably at slack water? The results presentation would be improved by also showing the places where sediment is able to accumulate in the		

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medium term. MMO assume these results are fine (<63 µm) sediment only? Please confirm.		
<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Page 31, Paragraph 2. "The remaining undispersed sediment would finally settle 23 km to the south, and its thickness would be less than 10mm." If the sediment is undispersed how does it move 23 km to the south? Please clarify.		
<b>6.3 Volume 2 Main Development Site Chapter 22 Marine Ecology and Fisheries Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b> Table 8 presents the effect on the surface waters. It would be important to have this for the near bed case and thereby judge effects on near bed fish etc. Please can further information on effects on near bed fish be provided?		

Additional / ES Addendum Comment	Applicant's Comments	MMO's comments
<p><b>6.3 Volume 2 Main Development Site</b>  <b>Chapter 22 Marine Ecology and Fisheries</b>  <b>Appendix 22K - Sizewell C: Site Characterisation for the Disposal of Material Associated with Drilling and Dredging [APP-328]</b>            Page 35, 5.3 Designated conservation sites. Knowledge of how close the sediment plumes get to the designated sites would give confidence in the stated low risk of effects. Please can you provide further information on this.</p>		