

Rampion 2 Wind Farm

Category 8: Examination Documents

Applicant's Response to Historic England Deadline 1 Submission on Marine Archaeology

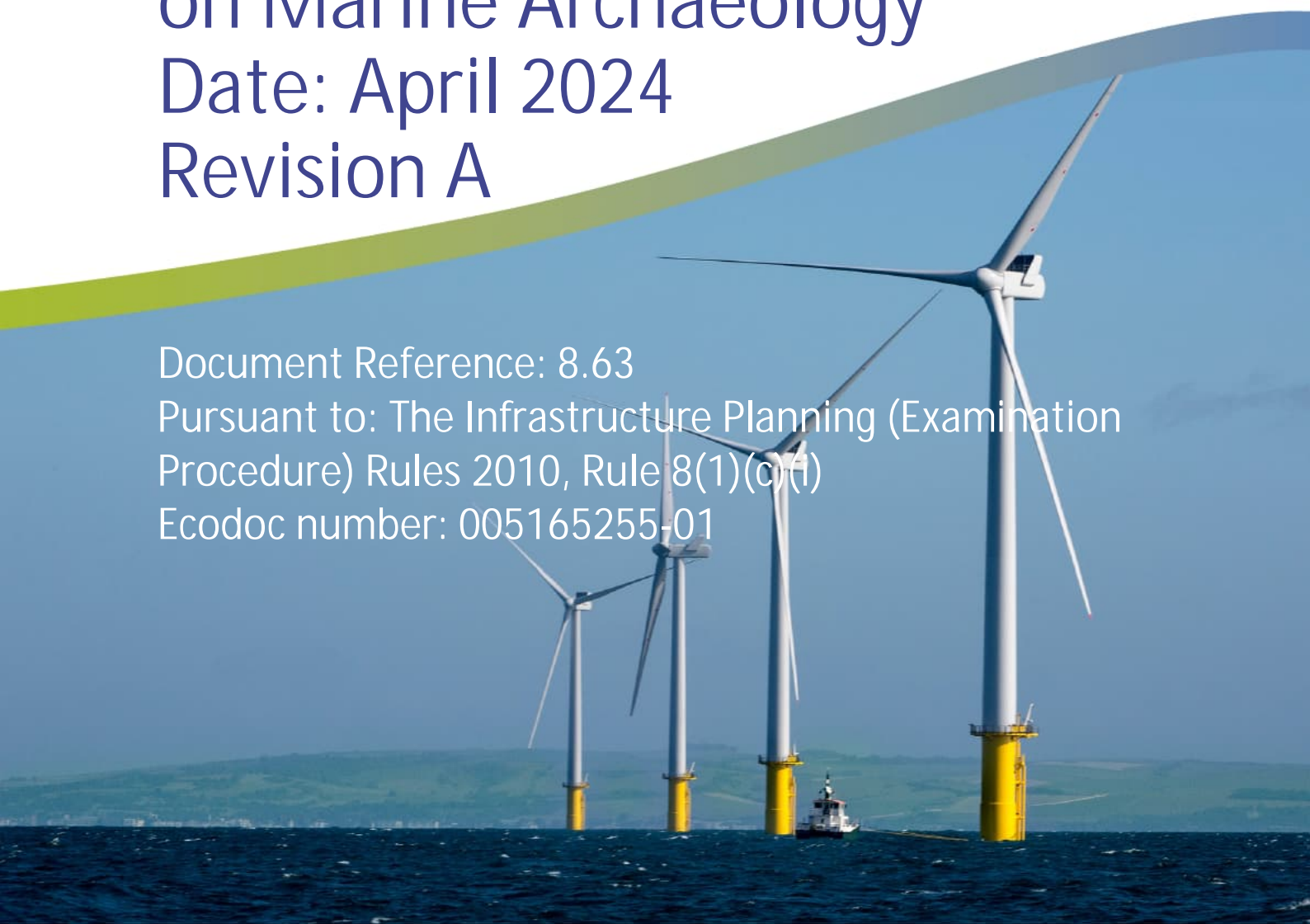
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Executive Summary

At Deadline 1 of the Examination for Rampion 2 Offshore Wind Farm Project, Interested Parties were invited to submit Written Representations and Post-hearing submissions following Issue Specific Hearing 1 (held 07 to 08 February 2024) into the examination.

The Applicant responded to the Written Representation submitted by Historic England **[REP1-055]** in the document **Deadline 2 Submission - 8.49 Category 8: Examination Documents - Applicant's Response to Prescribed Consultees' Written Representations [REP2-026]**.

The responses in this document provide an update to the responses previously submitted by the Applicant, specifically for the offshore documents, included:

- **Chapter 16: Marine archaeology, Volume 2**, of the Environmental Statement (ES) **[APP-057]** (updated at Deadline 3);
- **Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162]** (updated at Deadline 3); and
- **Outline Marine Written Schemes of Investigation, [APP-235]** (updated at Deadline 3).

Responses have only been included in this document where updates have been made since **Deadline 2 Submission - 8.49 Category 8: Examination Documents - Applicant's Response to Prescribed Consultees' Written Representations [REP2-026]**.

1. Introduction

1.1 Project Overview

- 1.1.1 Rampion Extension Development Limited (hereafter referred to as 'RED') (the 'Applicant') is developing the Rampion 2 Offshore Wind Farm Project ('Rampion 2') located adjacent to the existing Rampion Offshore Wind Farm Project ('Rampion 1') in the English Channel.
- 1.1.2 Rampion 2 will be located between 13km and 26km from the Sussex Coast in the English Channel and the offshore array area will occupy an area of approximately 160km². A detailed description of the Proposed Development is set out in **Chapter 4: The Proposed Development, Volume 2** of the Environmental Statement (ES) [APP-045], submitted with the Development Consent Order (DCO) Application.

1.2 Purpose of this Document

- 1.2.1 The responses below, provide an update to the responses submitted by the Applicant in the **Deadline 2 Submission - 8.49 Category 8: Examination Documents - Applicant's Response to Prescribed Consultees' Written Representations [REP2-026]** for the offshore issues raised in the Historic England **Deadline 1 Submission - Written Representations (WRs) including summaries if exceeding 1500 words [REP1-055]**.

2. Applicant's Response to Historic England

Table 2-1 Applicant's Response to Historic England's Written Representation (marine archaeology issues) [REP1-055]

Ref	Written Representation Comment	Applicant's Response
5. Comments on Environmental Statement: Volume 2, Chapter 16 – Marine Archaeology (Document Reference: 6.1.14) PINs Reference: APP-057		
5.1	5.1 It is important to note that referral to EN-3 should be to the final version published in November 2023. For example, EN-3 paragraph 2.8.315 sets out that sufficient and adequate mitigation is applicable as much to known wreck (of historic environment interest) as for discoveries that may occur when high resolution surveys are commissioned, should consent be obtained.	<p>Paragraph 1.6.2 of NPS EN-1 (2024) states “1.6.2 <i>The Secretary of State has decided that for any application accepted for examination before designation of the 2023 amendments, the 2011 suite of NPSs should have effect in accordance with the terms of those NPS.</i>”</p> <p>As the Proposed Development was accepted for examination on 7 September 2023 and the 2024 suite of NPSs were designated on 22 November 2023, the 2011 NPS still have effect.</p> <p>Section 104 of the 2008 Planning Act outlines that the DCO Application must be decided in accordance with the relevant National Policy Statements (NPSs) (in this case: NPS EN-1 (Department of Energy and Climate Change (DECC), 2011a), NPS EN-3 (DECC, 2011b) and NPS EN-5 (DECC, 2011c). NPS EN-1 (Department for Energy Security and Net Zero (DESNZ), 2023a), NPS EN-3 (DESNZ, 2023b) and NPS EN-5 (DESNZ, 2023c), which came into force in 2024, will be referred to as relevant considerations in the decision-making process unless (inter alia) the adverse impacts of a proposal would outweigh its benefits, however NPSs EN-1 and EN-3 (2011) which were extant at the time of submission of the Development Consent Order (DCO) Application and against which it will be tested. The variance in the NPS 2011 and 2023 versions of the EN-1 and EN-3 are detailed in a specific project document (Applicant's National Policy Statement Tracker [REP2-015] (updated at Deadline 3)).</p>
5.2	5.2 EN-3 Paragraph 5.9.13 (published November 2023) encourages the applicant to “...prepare proposals which can make a positive contribution to the historic environment...” however, the response offered by the Applicant is solely limited to delivery of “embedded mitigation measures” and that if conducted could make a contribution. The Applicant is therefore not demonstrating a proactive attitude in delivering wider understanding about our shared historic environment, as is likely to be encountered in the proposed development area.	<p>National Policy Statements (NPSs) EN-1 and EN-3 (2011) were extant at the time of submission of the Development Consent Order (DCO) Application and against which it will be tested.</p> <p>Chapter 16: Marine archaeology, Volume 2, of the Environmental Statement (ES) [APP-057] (updated at Deadline 3) includes relevance to the assessment in relation to NPS EN-1 (2011) Paragraph 5.8.13 Table 16-2 and EN-1 (2023) Paragraph 5.9.13, Table 16-3 by positive contributions to knowledge and enhancement of understanding of the historic environment can be realised through data gathering, interpretation and publication all of which are secured through the written schemes of investigations secured through the Draft Development Consent Order [REP2-002] (updated at Deadline 3) (requirement 19 onshore and condition 11(2) of the deemed marine licences). The works will contribute to current research frameworks in the region and will be further detailed in forthcoming method statements. No changes will be made to the text in Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3).</p>
5.3	5.3 EN-3 Paragraph 5.9.16 (published November 2023) explains that “...retaining the heritage asset, and therefore the ability to record evidence of the asset should not be a factor in deciding whether such loss should be permitted...” However, the Applicant in response only acknowledges action that could be taken to avoid all known marine heritage	<p>NPS EN-1 and EN-3 (2011) were extant at the time of submission of the Development Consent Order (DCO) Application and against which it will be tested. The variance in the NPS 2011 and 2023 versions of the EN-1 and EN-3 are detailed in a specific project</p>

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	<p>receptors and does not adequately address the need for archaeological investigations to be completed ahead of development commencing. Investigations are required to ascertain the presence of presently unknown receptors, so that in-situ protection measures are applied accordingly. Therefore, attention is now required regarding the revised text within paragraphs 5.9.19 and 5.9.20 within EN-1 published November 2023. The statement made by the Applicant about reliance on a protocol for discoveries does not provide mitigation, as reflected in the text of published EN-1 regarding prevention of loss occurring. It is crucial that the measures are in place prior to “project works” commencing (as described by the Applicant).</p>	<p>document (Applicant's National Policy Statement Tracker [REP2-015]) (updated at Deadline 3).</p> <p>Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) outlines that the commitment to avoid all known marine heritage receptors and to further investigate the area of impacts ensuring that unknown receptors are located, and impact mitigated will ensure preservation <i>in situ</i>. Where items might be removed from the seabed, conservation strategies will be clearly outlined in the relevant method statements produced ahead of any such archaeological works. Embedded environmental measures C-58 and C-59 clearly outline how the Applicant has and continues to undertake archaeological investigations during construction.</p> <p>Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) states in Annex A that the Protocol for Archaeological Discoveries (PAD) defines the procedure that will be followed if unexpected assets (defined as marine heritage receptors) are identified not that it will be relied on nor provide mitigation.</p> <p>The Written Schemes of Investigation which detail these mitigations are secured through condition 11(2) of each of Schedules 11 (generation assets) and 12 (transmission assets) of the Draft Development Consent Order, [REP2-002] (updated at Deadline 3).</p>
5.4	<p>5.4 Paragraph 5.9.21 (EN-1 published November 2023) is focussed on undiscovered heritage assets as might be discovered and the requirement for appropriate procedures for identification and treatment “discovered during construction” therefore a WSI for “construction” phase is required. Furthermore, it seems that the proposed mitigation is not directly aligned with the NPSs (published November 2023). For example, the use of a protocol reporting system only facilitates communication – the damage/destruction will have already occurred and therefore not mitigated.</p>	<p>The EN-1 and EN-3 (2011) which were extant at the time of submission of the Development Consent Order (DCO) Application and against which it will be tested. Relevance to assessment in relation to EN-1 Paragraph 5.9.9 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) states that all embedded mitigation measures apply. The Applicant acknowledges that damage/destruction to heritage assets is a possibility. However, the Protocol For Archaeological Discoveries (PAD) does not replace the process of archaeological assessment and evaluation (Embedded environmental measures C-59 and C-60, secured through the marine written scheme of investigations and condition 11(2) of each of schedules 11 and 12 of the Draft Development Consent Order, [REP2-002] (updated at Deadline 3)), but rather acts as a safety net in the event of unexpected discoveries during the course of works. No changes will be made to the text in Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3).</p>
5.5	<p>5.5 Paragraph 16.6.13-14 explains that corroboration between UK Hydrographic Office (UKHO) and the National Record of the Historic Environment (NRHE) records and geophysical survey data indicate the existence of 28 known wreck sites. However, it is important to highlight that there are an additional 28 recorded vessel losses within the study area which are not associated with an identified shipwreck. Plus, there are “seabed features” which potentially could be correlated with recorded losses identified as anomalies during the archaeological assessment of geophysical data. It is also entirely possible that these anomalies represent previously unknown wrecking events, and which could be of significant archaeological interest (as acknowledged in paragraph 16.6.16). There are also 17 reported losses of aircraft within the study area with all but one crash location occurring during the Second World War. We appreciated the attention given to 20 records classed as fishermen’s</p>	<p>The Applicant welcomes Historic England’s support on the subject matter.</p>

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5.6	<p>fasteners recorded by the NRHE (paragraph 16.6.18) and that action has been taken to cross reference to anomalies identified from geophysical survey.</p> <p>5.6 Paragraph 16.6.20 briefly describes the geophysical data commissioned for this proposed project, which is described as “good” quality and therefore considered suitable for archaeological interpretation. The detail of Table 16-13 is useful in that 30 anomalies of “high” archaeological potential are identified as well as other anomalies considered to be “medium” or “low” potential. However, it is important to make clear that the inclusion of records in paragraph 16.6.22 for known losses, such as Gerlen sunk on 19th July 1972 or Ny Eeasteyr, sunk on 8th December 1980 are not of historic environment interest and should not be included here. It is also noted that information is included here, such as for MA005, MA0021 and MA0025 which describes what could be a ship’s hull, but for which no corresponding UKHO record references are provided. Furthermore, paragraph 16.6.24 seems to suggest that material already identified as boulders or modern debris are included as “low” potential anomalies; such detail should not be included here.</p>	<p>As stated in Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3).</p> <p>Paragraph 16.6.20 states that the definition of survey data quality for archaeological interpretation is further detailed in Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-062] (updated at Deadline 3).</p> <p>Paragraph 16.6.22 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) includes details on anomalies as seen in the geophysical data that have been assessed as high archaeological potential as well as known wrecks and obstructions (deriving from the UKHO dataset) that correlate with anomalies identified in the geophysical data, therefore the <i>Gerlen</i> and <i>Ny Eeasteyr</i> have been included, their historic environmental interest is detailed in Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-062] (updated at Deadline 3). The anomalies with no corresponding records have been included as they were identified in one or several of the geophysical data assessments.</p> <p>Paragraph 16.6.24 describes the low potential archaeological anomalies as possible modern fishing debris or boulders, however as this assessment has not been confirmed by ground truthing they are kept as features of archaeological potential to be avoided until such time that their archaeological potential can be ruled out through further investigation and obligations in line with the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).</p>
5.7	<p>5.7 Paragraph 16.6.27 requires close attention to ensure alignment with national policy. The action to prepare a survey specific method statement should not be prepared “Prior to any works”, but there should be a clear commitment and obligation that any such Method Statement is prepared to inform the planning and delivery of a geotechnical survey campaign, as should be conducted “prior to any works”. We will therefore provide further comments as to the suitability of the quoted embedded environmental measures, such as C-59, which we understand is reflected through draft DCO deemed Marine Licence conditions.</p>	<p>Clear commitments and obligations are set out within the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) and include the methodological approach for archaeological investigations where specific details and parameters will be stated in specific Method Statements.</p> <p>Please note that condition 11(3) of the Draft Development Consent Order, [REP2-002] (updated at Deadline 3) confirms that pre-commencement archaeological investigations and pre-commencement material operations which involve intrusive activities must only take place in accordance with a specific written scheme of investigation (which must accord with the details set out in the outline marine written scheme of investigation) which has been submitted to and approved by the MMO.</p> <p>The methodological approach for archaeological investigations such as geoarchaeological investigations with survey details and parameters will be stated in specific Method Statements agreed with Historic England as per the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).</p>
5.8	<p>5.8 We note that paragraph 16.6.36 explains how a prehistoric channel system (Ref: MA3001) of possible archaeological interest identified through the studies conducted for the Rampion 1 development, extends into the Rampion 2 survey area. However, Table 16-14 is described as a “preliminary deposit model” but doesn’t appear to include detail as alluded to</p>	<p>Section 16.6 within Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) summarises the baseline assessment. Full details are included in Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3). The preliminary deposit model has taken into account all datasets and the locations</p>

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	in paragraph 16.6.41 regarding peat exposures, which could be of significant geo-archaeological interest.	where peat or clay were noted during a seabed habitat mapping survey are included in Figure 16-4, Chapter 16: Marine Archaeology – Figures, Volume 3 [APP-096] . The outline deposit model will be further refined following a staged geoarchaeological assessment as per the commitments and obligations detailed in the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).
5.9	5.9 “Historic Seascape Characterisation” (paragraphs 16.6.43 to 16.6.53), although reference is made to Chapter 15 (Seascape and Landscape) the consideration of “current seascape” requires attention. It is our advice that MCAs should also take account of Seascape Character Assessment (as used in English marine planning), which incorporates cultural characteristics (as defined by the Marine and Coastal Access Act 2009); this is relevant when considering the capacity of seascapes to accommodate change. It is therefore the case that the statement in paragraph 16.6.47 is not directly demonstrated by the detail presented. For example, in ES Chapter 15, MCA08 (South Downs Maritime) is described in reference to Sensitivity to Change as “High”. Furthermore, it appears that the focus for describing historic character seems to be primarily based on public perception (paragraph 16.6.50). However, the use of Historic Seascape Characterisation (HSC) within this chapter should also consider perceptions of change in identified characteristics in reference to what could be introduced by the proposed RED development project.]	The Applicant welcomes feedback from Historic England and has updated the Historic Seascape Characterisation (HSC) assessment as per comments received during the consultation process (Table 16-7 Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) Further, the approach to HSC methodology was updated and presented in the ETG (22 March 2022, page 520 in Evidence Plan (Part 1 of 11) [APP-243]) including tabulated examples of character types, the perception of HSC, and the assessment of adaptability to change throughout the phases of development. The focus of perception and adaptability to change were taken from the National and Regional texts within LUC (Land Use Consultants) (2018) ¹ which focus on the 'value and perceptions', 'research, amenity and education', 'condition and forces for change' and 'rarity and vulnerability' which we have used to summarise the perception of the character and how it may be impacted.
5.10	5.10 We note that the worst-case scenario presented in Table 16-15 is for 65 “larger type WTGs” differs to the assumption made in the Outline WSI (Doc Ref: 7.1.3, Application Ref: APP-235) which is 90 “smaller type WTGs”.	The assessment has used the 65 larger type WTGs as the worst-case scenario, as the seabed disturbance of the foundations for this would be greater for this scenario than the 90 smaller type WTG. The description of the Proposed Development provided in Section 3 is taken from Chapter 4: The Proposed Development, Volume 2 of the ES [APP-045] . The worst-case scenarios for each assessment is explained in detail in Pre-Exam Procedural Deadline Submission – 8.23 – Examining Authority requested additional information – Revision A [PEPD-041] .
5.11	5.11 Table 16-16 Embedded environmental measures – we offer the following comments: <ul style="list-style-type: none"> • C-57 – the stage of application of the Marine Written Schemes of Investigation (WSI) to be developed in accordance with the Outline WSI must be clearly explained, as well as the methodological approaches to be used for any monitoring and assessment work (vis. EN-1 published November 2023, paragraph 5.9.18); • C-58 – any offshore geophysical surveys including Unexploded Ordnance (UXO) surveys undertaken during the life of the project should be subject to archaeological review in accordance with an agreed WSI delivered by the Consent Holder’s retained professional archaeological advice service; • C-59 – Offshore geotechnical surveys prior to construction should be undertaken following early discussions with Historic England utilising an Outline WSI which will support production of a geoarchaeological deposit model following available guidance; • C-60 – Clarification is required whereby any intrusive activities undertaken during the life of the project will be routed and micro-sited to avoid not only heritage receptors identified pre- 	Updates to the Embedded environmental measures in line with Historic England feedback received at Scoping and PEIR were presented to Historic England at ETG meetings on the 22 March 2022 and 16 June 2022 respectively (Pages 520 and 649 respectively in the Evidence Plan (Part 1 of 11) [APP-243]). Further updates in line with Historic England comments are in bold below and have been included within the Commitment register, [REP1-015] (updated at Deadline 3)): <p>“C-57: Marine Written Schemes of Investigation (WSI) will be developed in accordance with the Outline Marine Written Schemes of Investigation (WSI) (Application Document Reference 7.13). The Marine WSI will detail environmental measures including the archaeological exclusion zones (AEZ), the implementation of a Protocol for Archaeological Discoveries in accordance with ‘Protocol for Archaeological Discoveries: Offshore Renewables Projects’ (The Crown Estate, 2014) and methodologies for future monitoring, survey and assessment requirements.</p>

¹ LUC (Land Use Consultants) (2018) *National Historic Seascape Characterisation Consolidation*. York: Archaeology Data Service[Online] Available at [REDACTED] Accessed April 2024.

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	<p>construction, but in accordance with archaeological assessment procedures set out in a "Marine WSI", should the project encounter presently unknown heritage receptors (vis. Risks associated with the maximum design scenario), as confirmed in EN-3 (published November 2023), paragraph 2.8.165.</p> <ul style="list-style-type: none"> • C-277 – any post construction monitoring plan, as well as identifying anomalies, areas or sites of archaeological interest and significance, should outline how post-construction monitoring campaigns will be conducted in accordance with a stage-specific WSI to determine direct or indirect impacts to marine heritage receptors. 	<p>C-58: Offshore geophysical surveys (including Unexploded Ordnance (UXO) surveys) undertaken during the life of the project will be subject to full archaeological review where relevant in consultation with Historic England.</p> <p>C-59 Offshore geotechnical surveys undertaken during the life of the project prior to construction will be undertaken following early discussions with Historic England. Areas with geoarchaeological potential will be targeted during the geotechnical sampling campaigns and the results of the geoarchaeological assessment will be presented in staged geoarchaeological reports inclusive of publication. The published results will aim to enhance the palaeogeographic knowledge and understanding the area.</p> <p>C-60: All intrusive activities undertaken during the life of the project will be routed and microsited to avoid any identified marine heritage receptors, with Archaeological Exclusion Zones (AEZs) (buffers) as detailed in the Outline Marine Written Schemes of Investigation (WSI) (Application Document Reference 7.13) unless other mitigation is agreed with Historic England as per the Marine WSI. Micrositing and AEZs will further be applied to not yet undiscovered marine heritage receptors should they be located.</p> <p>C-111: A decommissioning plan will be prepared for the project in line with the latest relevant available guidance.</p> <p>C-277: A post-construction monitoring plan as per Marine Written Schemes of Archaeological Investigation (WSI) will be produced. The post-construction monitoring plan will recommend areas or sites of archaeological interest or significance for monitoring and outline how post-construction monitoring campaigns will collect, assess and report on changes or impacts to marine heritage receptors that may have occurred during the construction phase.</p>
5.12	<p>5.12 Paragraph 16.1.3 details that 30 "high potential" and 22 "medium potential" anomalies have been assigned Archaeological Exclusion Zones (AEZs) and that of the combined total of proposed AEZs, 28 locations are identified known wrecks and obstructions. These wrecks and obstructions have been assigned 100m AEZs and for records for which there is no corroboration with geophysical survey data, "precautionary" 50m radius AEZs are proposed. We are prepared to accept this preliminary approach subject to subsequent higher resolution investigation.</p>	<p>Further geophysical surveys and associated archaeological assessments will be undertaken with survey details and parameters stated in specific Method Statements agreed with Historic England as per the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).</p>
5.13	<p>5.13 Paragraph 16.8.4 provides helpful acknowledgement that consideration of "likely significant effects" in EIA terms used in this application is about the impact on the significance of heritage assets inclusive of cumulative, transboundary, inter-related and residual effects. We add that Table 16-17 (Criteria for establishing the level of receptor sensitivity) implies that only in situ archaeological finds are of very high/high sensitivity. An exemption should be made for Palaeolithic finds which are rarely in situ but almost always of very high/high sensitivity.</p>	<p>Table 16-17 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) has been updated to refer to finds rather than <i>in situ</i> finds.</p>
5.14	<p>5.14 Table 16-18 (Criteria for magnitude of impact) – it would be helpful if the Applicant could demonstrate how a "major" magnitude of impact using criteria "beneficial" will be</p>	<p>NPS EN-1 and EN-3 (2011) were extant at the time of submission of the Development Consent Order (DCO) Application and against which it will be tested. However, the 2024 suite of NPSs will be a material consideration and the emerging documents have been</p>

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	<p>achieved through delivery of embedded mitigation measures (e.g. Table 16-16), as explained within EN-1 (November 2023), paragraph 5.9.13.</p>	<p>considered in Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3).</p> <p>The Applicant considers the text within Table 16-18 as appropriate and in line with the rest of the table demonstrating examples rather than referring to mitigation.</p> <p>The Major Criteria (Beneficial) is stated as: <i>“Large-scale enhanced understanding of the archaeological resource inversely proportional to the scale of adverse effect, for example benefit through large area geophysical/geotechnical survey data released to public domain.”</i></p> <p>Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) outlines that in relevance to NPS EN-1 (2011) Paragraph 5.8.13 Table 16-2 and EN-1 (2023) Paragraph 5.9.13, Table 16-3 focuses on positive contributions to knowledge and enhancement of understanding the historic environment and how that can be realised through data gathering,</p> <p>Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) details provisions and standards expected for mitigation of potential impacts on marine heritage receptors.</p> <p>The Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) also outlines the incorporation of relevant local and national research frameworks in future works to contribute to the knowledge and understanding of the historic environment. The securement of the WSI document is detailed as Embedded environmental measure C-57 and is reflected in the draft Development Consent Order (DCO) [REP2-002] (updated at Deadline 3) (Requirement 11 (2)).</p>
5.15	<p>5.15 Section 16.9 (Assessment of Effects: construction phase) – in reference to removal of sediment containing undisturbed archaeological contexts, we agree with the possible impacts (negative i.e. exposure and positive i.e. burial), but the assumption made in paragraph 16.9.4 that after application of embedded environmental measures the magnitude of impact is considered “negligible” is entirely predicated on effective implementation. It is relevant to highlight EN-1 (published November 2023), paragraph 5.9.16.</p>	<p>Noted, the Applicant has no further comments on this matter at this time.</p>
5.16	<p>5.16 Tables 16-20 to 16-24 – we do not agree with the identification that 30 “High” potential anomalies should be afforded receptor sensitivity (value) of “Medium”; as this determination does not seem to be aligned with consideration afforded to heritage assets as set out in EN-1 (published November 2023), paragraph 5.9.6 and EN-3 (published November 2023), paragraph 2.8.315.</p>	<p>Tables 16-20 to 16-24 within Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) statement that the level of receptor sensitivity (value) is Medium for High potential anomalies is in keeping with table 16-17 <i>“Non-designated live wreck sites, geophysical anomalies of high potential, recorded wrecks not confirmed by survey, palaeoenvironmental features or deposits.”</i></p> <p>The Applicant does not consider this approach to go against EN-1 (2011) Paragraph 5.8.6 or EN-1 (published November 2023), Paragraph 5.9.6 where both focus on <i>“Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance”</i> EN-1 (2023) as these High potential anomalies cannot be demonstrated to be of equivalent significance to designated heritage assets.</p>

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5.17	<p>5.17 Paragraph 16.9.54 – we do not agree with the approach adopted by the Applicant for historic characterisation, which we do not see as aligned with available guidance. For example, paragraph 16.9.56 describes the attention given to public perception of seascape, which together with the conclusions offered in Table 16-25 (Changes to HSC) doesn't appear to correlate with the assessment approach detailed in Chapter 15 for MCAs (e.g. MCA08). Furthermore, as there is no published methodological approach to determine sensitivity in relation to HSC, we cannot concur with the appropriateness or accuracy of the determination of significance of residual effect in paragraphs 16.9.62 and 19.9.63.</p>	<p>EN-3 (published November 2023), paragraph 2.8.315 refers to birds and not the Marine historic environment. Clarification from Historic England is requested.</p> <p>Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) Paragraphs 16.9.52-16.9.61, 16.10.43-16.10.52 and 16.11.23-16.11.32 outline Changes to HSC during construction, Operation and Maintenance and Decommissioning respectively. The full HSC assessment is detailed in Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3).</p> <p>The Applicant acknowledges that while there is no published methodological approach to determine sensitivity in relation to HSC, the paragraphs detailed above clearly outlines the methodology used to assess magnitude of impact and sensitivity (value). Table 16-25, 16-30 and 16-33 outline Changes to the HSC per Broad Historic Character type, setting and change to perception.</p> <p>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2 [APP-056] if referred to in Table 16-25, 16-30 and 16-33 as in the context of impacts to seascape, landscape and visual amenity, while the HSC assessment draws on National Historic Seascape Characterisation Consolidation (LUC, 2018)², England's Historic Seascapes: HSC Method Consolidation (Cornwall Council, 2008)³; and England's Historic Seascape: Demonstrating the Method (SeaZone Solutions Limited, 2011)⁴, along with the Historic England's National Database (LUC, 2018).</p> <p>The Applicant welcomed feedback from Historic England and updated the Historic Seascape Characterisation (HSC) assessment as per comments received during the consultation process (Table 16-7) Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3). Further, the approach to HSC methodology was updated and presented in the ETG (22 March 2022, page 520 in the Evidence Plan (Part 1 of 11) [APP-243]) including tabulated examples of character types, the perception of HSC, and the assessment of adaptability to change throughout the phases of development. The focus of perception and adaptability to change were taken from the National and Regional texts within LUC (Land Use Consultants) (2018) which focus on the 'value and perceptions', 'research, amenity and education', 'condition and forces for change' and 'rarity and vulnerability' which we have used to summarise the perception of the character and how it may be impacted.</p>

² LUC (Land Use Consultants) (2018) *National Historic Seascape Characterisation Consolidation*. York: Archaeology Data Service[Online] Available at <https://doi.org/10.5284/1046273> Accessed April 2024.

³ Cornwall Council (2008) *England's Historic Seascapes: HSC Method Consolidation* [data-set]. York: Archaeology Data Service [distributor] [Online] Available at: <https://doi.org/10.5284/1000033> Accessed 24 April 2024.

⁴ SeaZone Solutions Limited (2011) *England's Historic Seascapes: Demonstrating the Method*. York: Archaeology Data Service [Online] Available at: <https://doi.org/10.5284/1000144>. Accessed 24 April 2024.

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5.18	5.18 Section 16.10 (Assessment of effects: Operation and Maintenance phase) – regarding the assumptions made about the magnitude of impact of maintenance activities relating to Rampion 2 on marine heritage receptors after the embedded environmental measures (Table 16-16), its consideration as “negligible” is again predicated on effective and enforceable implementation of mitigation conditions.	Noted, the Applicant has no further comments on this matter at this time.
5.19	5.19 Tables 16-26 to 16-29 – we do not agree with the identification that 30 “High” potential anomalies should be afforded receptor sensitivity (value) of “Medium”; this determination does not appear to be aligned with consideration afforded to heritage assets as set out in EN-1 (published November 2023), paragraph 5.9.6 and EN-3 (published November 2023), paragraph 2.8.315.	<p>Tables 16-26 to 16-29 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) statement that the level of receptor sensitivity (value) is Medium for High potential anomalies is in keeping with table 16-17 “<i>Non-designated live wreck sites, geophysical anomalies of high potential, recorded wrecks not confirmed by survey, palaeoenvironmental features or deposits.</i>”</p> <p>The Applicant does not consider this approach to go against EN-1 (2011) Paragraph 5.8.6 or EN-1 (published November 2023), Paragraph 5.9.6 where both focus on “Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance” EN-1 (2023) as these High potential anomalies cannot be demonstrated to be of equivalent significance to designated heritage assets.</p> <p>EN-3 (published November 2023), paragraph 2.8.315 refers to birds and not the Marine historic environment. Clarification from Historic England is requested.</p>
5.20	5.20 Changes to HSC as a result of operation and maintenance vessel activities and the presence of the completed wind farm – we do not concur with the conclusions drawn which use HSC to contextualise a regional approach (paragraph 16.10.44) with the statement made in paragraph 16.10.48 that HSC equates to a marine heritage receptor for which an impact can be determined.	<p>Within Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) paragraph 16.10.48 states “<i>magnitude of impact on HSC during the operation and maintenance phase is therefore assessed as a narrative using the Broad Historic Character Types, as summarised in Section 16.6.</i>”</p> <p>Impacts are assessed as narrative for HSC throughout this chapter. Also see reply to 5.17.</p>
5.21	5.21 Table 16-30 (Marine heritage receptor changes to the Historic Seascape Characterisation (HSC) (Operation and Maintenance) – consideration of changes in perception appear to be duplicated from consideration of HSC during construction. It also seems that detail could have been added about decommissioning given estimated length of operational of Rampion 2 e.g. 30 years, by which time there is likely to be character association with renewable energy therefore decommissioning and removal could equate to major change.	Table 16-30 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) considers changes to HSC taking into account the presence of substation and added infrastructure. While Table 16-25 considers the construction stage and focuses on temporary vessels and the ongoing addition of infrastructure. Where relevant to all three phases (No perceived change) duplication has purposely been included. The decommissioning phase is included in table 16-33.
5.22	<p>5.22 Section 16.12 Assessment of cumulative effects – the text states that the following projects: IFA2; Cross Channel Fibre; and Portsmouth-Ryde BT that the environmental assessments produced for these projects were not available or did not contain marine archaeology impact assessment. However, we provided advice for all three of these development projects, summarised here:</p> <ul style="list-style-type: none"> • IFA2 produced a combined marine archaeological desk-based assessment and review of marine survey data (document dated May 2016); • CrossChannel Fibre Limited Report Identifying Additional Studies included archaeology (document dated March 2020); • BT Isle of Wight Cable Project MOP & Environmental Assessment included archaeology (document dated May 2014). 	The Applicant kindly requests copies of the documents mentioned, if available. However, while it was not possible to make a comprehensive assessment of the significance of effect, given that construction activities do not overlap and disturbance from operational and maintenance of Rampion 2 is expected to be short term, and localised to the offshore part of proposed DCO Order Limits, it is not anticipated that any cumulative effects of sub-sea cables and pipelines (telecommunication and power cables) and Rampion 2 will result in a significant impact.

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5.23	<p>5.23 Table 16-35 – We appreciate that “...archaeological input is of paramount importance throughout the life of the project.” Furthermore, the assumption that “cumulative significance of effect during the construction phase is not significant, in EIA terms” is predicated on effective implementation and enforcement of consent requirements. It must also be made clear that in instances where archaeological materials are disturbed, damaged and/or destroyed by the development project cannot be subject to “mitigation”.</p>	<p>Table 16-35 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) includes the text “<i>embedded environmental measures as outlined in Table 16-16 aim to avoid and mitigate indirect and direct and permanent impact on marine heritage receptors (known, unlocated and HSC)</i>”</p> <p>The Applicant has understood and agrees that the embedded environmental measures are in place to avoid impacts, however, if direct impact has occurred, further archaeological works such as ROV/Diver investigations as outlined in the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) may be required to offset the impact.</p> <p>Further to this, mitigation for impact to geoarchaeological deposits is not avoidance of impacts but offset per embedded environmental measure C-59.</p>
5.24	<p>5.24 Paragraph 16.12.14 – although there might not be any “...spatial overlap with aggregate production areas and the Rampion 2 Assessment Boundary” no consideration is given to the impact to the target resource (palaeo-channels) through dredging or restricted access and disturbance from construction of an offshore wind farm. Therefore, the statement made in paragraph 16.12.17 cannot be substantiated.</p>	<p>Paragraph 16.12.14 and 16.12.17 within the Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) states that “<i>The magnitude of impact of cumulative effects as a result of Rampion 2 and nearby active dredging areas is therefore expected to be avoided or indistinguishable from natural variation</i>”</p> <p>The British Marine Aggregate Producers Association (BMAPA) ensures that proportionate planning is undertaken which provides a framework to enable delivery of a ‘licence to operate’ for all dredging activities and operations, they should therefore ensure that impact is being mitigated or offset within the licenced areas.</p> <p>The Applicant highlights that mitigation for impact to geoarchaeological deposits is not avoidance of impacts but offset per embedded environmental measure C-59.</p> <p>The same geoarchaeological feature, considering the area was previously large swathes of dryland, exploited during the Pleistocene and early Holocene, may be impacted both within the Rampion 2 Assessment Boundary as well as within an aggregate production area. The impact will however be minor and localised, for example as a result of collection of boreholes/vibrocores or compression and the impact will be offset by the geoarchaeological assessments as per embedded environmental measure C-59. It can therefore not be argued that this impact is cumulative with any aggregate production area.</p>
5.25	<p>5.25 Paragraph 16.12.19 – the text states that “No direct cumulative impacts on marine heritage receptors within the Rampion 2 Assessment Boundary are expected; the two wind farms (Rampion 1 and Rampion 2) are in close proximity but do not have spatially overlapping Assessment Boundaries”. However, this does not appear to take into account the possible impact to prehistoric landscape features that cross the two development areas.</p>	<p>The Rampion 1 development consent application was submitted in 2013 and awarded in 2014. As part of the application process, a marine archaeology impact assessment was undertaken which concluded that measures will be taken, to ensure, as far as reasonably possible, that there will be no residual effects on any unanticipated marine heritage assets that are disturbed during the construction, operation or decommissioning of the wind farm; cumulative impacts are also expected to be negligible (ES Section 13- Marine Archaeology, E.ON, 2012).</p> <p>The Applicant highlights that mitigation for impact to geoarchaeological deposits is not avoidance of impacts but offset per embedded environmental measure C-59.</p>

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5.26	5.26 Table 16-37 – Embedded mitigation and avoidance of significant impact is only possible if materials are first discovered and left undisturbed in-situ. Therefore, to substantiate what mitigation might be able to deliver, this table necessitates effective implementation of all archaeological led assessments conducted and completed to inform development planning in advance of any commencement of construction related activities	The same geoarchaeological feature, considering the area was previously large swathes of dryland, exploited during the Pleistocene and early Holocene, may be impacted both within the Rampion 2 Assessment Boundary as well as within the Rampion 1 boundary, the impact will however be minor and localised, for example as a result of collection of boreholes/vibrocores or compression and the impact will be offset by the geoarchaeological assessments as per embedded environmental measure C-59. It can therefore not be argued that this impact is cumulative with Rampion 1.
7 Comments on Volume 4, Appendix 16.1: Marine Archaeological Technical Report (Document Reference: 6.4.16.1) PINs Reference: APP-162		
7.1	7.1 Section 2.4 (Geophysical data collection and methodology) – the methodology for geophysics should include line spacings and depth of survey, as described in the Geophysical Survey Report (ES Volume 4, Appendix 9.4, Doc Ref: 6.4.9.4, PINs Ref: APP-144), such that isopach charts are produced to show sediment thickness of the upper, loose and any mobile material. Plus, any other significant reflector levels which might impact on the engineering design to 50m below seabed for the proposed array areas and to 10m below seabed for the export cable corridor.	Section 2.4 within Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) provides relevant specifications used for data collection under the sub-headings for the different instruments used for collecting geophysical data. As noted by Historic England, further details are included in Geophysical Survey Report, Volume 4 [APP-144] . Line spacings at future geophysical surveys will be outlined in specific method statements as stated in the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) and will follow current and updated guidance.
7.2	7.2 We are aware that the surveys used techniques inclusive of Multi Beam Echo Sounder (MBES) and Side Scan Sonar (SSS) within the proposed array areas for the offshore part of the export cable corridor. In addition, Sub Bottom Profiler (SBP) and Magnetometer (Mag) data for the offshore part of export cable corridor with a line spacing of 60m, and 4 out of every 5 main lines in array areas, with a line spacing of 77m. The geophysical survey report (as referenced above) also states that Ultra-High Resolution Seismic (UHRS), SBP and Mag data was acquired for the (proposed) array areas at a line spacing of 385m with cross lines spacing of 1,336m which we understand could equate to possible WGT locations.	Noted, the Applicant has no further comments on this matter at this time.
7.3	7.3 Section 2.5 (Methodology geophysical data interpretation) – We note that archaeological assessment of geophysical data was conducted by a qualified and experienced marine archaeologist and that marine geophysics guidance published in 2013 was used. However, it is important to note the attention given to line spacings for surveying archaeological remains which are recommended at 30-50m for large (spatial) areas. This guidance should be followed in further surveys and therefore should be clearly referenced in the Outline WSI submitted as part of this DCO application.	Section 2.4 provides relevant specifications used for data collection under the sub-headings for the different instruments used for collecting geophysical data. Line spacings at future geophysical surveys will be outlined in specific method statements as stated in the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) and will follow current and updated guidance (The Applicant is aware and update to the marine geophysics guidance published in 2013 has recently been out for consultation and is expected to be published in 2024).
7.4	7.4 Section 2.6 (Environmental measures methodology) – We noted the following statement “These will evolve over the development process as the EIA progresses and in response to	Updates to the Embedded environmental measures in line with Historic England feedback received at Scoping and PEIR were presented to Historic England at ETG meetings on the

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	consultation". However, it seems apparent that there is not a full appreciation that an ES has now been produced and that any progress will be related to work stemming from consent requirements, should permission be obtained, and delivered through the WSI mechanism.	22 March 2022 and 16 June 2022 respectively (Evidence Plan (Part 1 of 11) [APP-243] pages 520 and 649 respectively) . In response to Historic England's written representation during the EIA process, changes have been made to the wording of the Embedded environmental measures detailed within Section 2.6 of Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3).
		See the Applicant's response in Reference 5.11.
7.5	7.5 Paragraph 3.2.2 includes Historic Seascape Character as a "marine archaeological resource"; this is not a resource per se, but an exercise conducted by the Applicant to determine the capacity of perceptions of historic character to accommodate change as proposed by the development.	Noted, the Applicant has no further comments on this matter at this time.
7.6	7.6 We noted the attention given to attributing "significance" to all the desk-based wreck records (e.g. UKHO "Live" records) considered spatially relevant to this proposed development. However, the consideration of "group value" could have contributed to a sense of setting (re HSC) and therefore what change could be introduced by the proposed development. For example, the three wrecks which are described as having "some significance as part of a wider narrative of a particular enemy attack" on 26th July 1940 (wrecks of SS London Trader, SS Broadhurst and SS Lulonga). Furthermore, we appreciate the attention given to unidentified UKHO record records which correspond with geophysical anomalies identified as having the potential to be significant. For example, UKHO Record 19988 (Mulberry harbour bridge unit) of "high overall archaeological significance".	Noted, the Applicant has no further comments on this matter at this time.
7.7	7.7 It is not justified why records such as MFV Jenny (sunk 1979); MV Gerlen (sunk 1972) or NY-Eeasteyr (sunk 1980) are included in this chapter. Furthermore, UKHO 82762 is included as medium significance although could it be a modern vessel.	Section 3.3 in Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) lists known wrecks, in order of their UKHO number, these records were included as part of the baseline assessment as although they do not currently have archaeological significance, they are a valuable resource within the baseline assessment and may be assessed as of significance in the future. Note that this represents a precautionary approach to assessment
		The significance assigned to 82762 is based on it being visible in the geophysical data and its potential to be of archaeological significance, while it could be modern, it could also be a small vessel of an earlier date.
7.8	7.8 The desk-based sources of information and corroboration with geophysical survey results clearly show the concentration of First World War wreck records associated with German U-boat attacks between November 1916 and August 1918 that resulted in the loss of 12 vessels. Overall, therefore it is apparent that this informs and contributes to the historic seascape of this location.	Noted, the Applicant has no further comments on this matter at this time.
7.9	7.9 The attempt to identify "significance" unfortunately moves matters away from considering if the available information indicates the presence of a heritage asset. For example, HMS Minion (lost while under tow in 1921) is described as having a good level archaeological potential, but overall "medium" archaeological significance, therefore should be considered as a (non-designated) heritage asset. Furthermore, for UKHO 20020 (tank landing craft), the text states that because the identity and age of this wreck are unknown, it is unclear what archaeological significance it may have. However, this conclusion doesn't seem to draw	Section 3.3 in Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) assesses baseline Archaeological significance based on the DCMS, 2013 guidance as detailed within section 3.3.1 and considers 9 different criteria, information associated with the records is summarised, where available, and the archaeological significance is outlined both within the text and the table.

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	sufficiently on details already known, whereby if more is learnt that it could be considered of medium to high significant. The conclusion that the identity and age affect the "significance" is not accepted given that available evidence allows for this site to be considered as a heritage asset, as defined by national policy.	Based on the information available, it is not clear if UKHO 20020 is a landing craft or another type of vessel that may or may not be considered as a (non-designated) heritage asset, therefore section 3.3.83 states that: <i>"If future investigations confirm it as a Second World War landing craft sunk during conflict, then its potential would be more significant and move from medium to high"</i> .
7.10	7.10 Paragraph 3.3.137 – There are 20 records classed as "fishermen's fasteners" recorded by the NRHE which the text acknowledges could indicate the presence of material of archaeological interest. The investigation of these records should be clearly identified as key locations for subsequent investigation for which the WSI should describe the techniques and methodologies for inspection.	<p>Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) includes aircrafts, fishermen's fasteners, monument, obstructions, known wrecks and wrecks seen in the geophysical data.</p> <p>The commitment to avoid all known marine heritage receptors and to further investigate the area of impacts ensuring that unknown receptors are located, and impact mitigated, will ensure preservation <i>in situ</i>, as further detailed in Outline Marine Written Scheme of Investigation [APP-235] (updated at Deadline 3). Where items might be removed from the seabed, conservation strategies will be clearly outlined in the relevant method statements produced ahead of any such archaeological works.</p>
7.11	7.11 Figure 7.3 – was produced at a scale that made its use difficult and inconvenient. For example, no attempt was made to make known wreck sites identifiable with only "MA" codes for geophysical anomalies. This same point is applicable to ES Volume 3, Chapter 16: Marine archaeology – Figures (PINs Ref: APP-096).	Figure 7.3 within Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) includes aircrafts, fishermen's fasteners, monument, obstructions, known wrecks and wrecks seen in the geophysical data. Many of which have more than one identification number. All marine heritage receptors are included within the Annexes which details the ID numbers. To include all of these would not be suitable for figures that aim to give an overview of the development area. Further illustrations of individual wreck sites are included in Annex E and F, Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3).
7.12	7.12 Section 3.5 Historic Seascape Characterisation, paragraph 3.5.1 – while appreciate that Historic Seascape Characterisation (HSC) should be used as a means to contextual historic environment information for the proposed development area, it is also the case that a perception of seascape character cannot be destroyed or damaged, but nor can there be "impacts" as there is no available methodology to equate sensitivity to historical character and associated perception.	<p>Sections 3.5.11 and 3.5.12 within Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) clarify that <i>"The HSC considers the added impact of Rampion 2 within the multiple dimensions of the marine environment (sub-sea floor, sea floor, water column, sea surface, coastal land and previous historic character) in combination with the existing activity within the Broad Historic Character Types. Within the HSC assessment impact is defined as any change to the HSC caused by Rampion 2; this may be ephemeral or sustained and that potential changes to the HSC are expressed as a narrative description of the seascape character, how it is perceived."</i></p> <p>The HSC assessment draws on National Historic Seascape Characterisation Consolidation (LUC, 2018), England's Historic Seascapes: HSC Method Consolidation (Cornwall Council,</p>

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		<p>2008)⁵; and England's Historic Seascape: Demonstrating the Method (SeaZone Solutions Limited, 2011)⁶, along with the Historic England's National Database (LUC, 2018)⁷.</p> <p>The Applicant welcomes feedback from Historic England and updated the Historic Seascape Characterisation (HSC) assessment as per comments during the consultation process (Table 16-7) Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3). Further, the approach to HSC methodology was updated and presented in the ETG (22 March 2022, page 520, Evidence Plan (Part 1 of 11) [APP-243]) including tabulated examples of character types, the perception of HSC, and the assessment of adaptability to change throughout the phases of development. The focus of perception and adaptability to change were taken from the National and Regional texts within LUC (Land Use Consultants) (2018) which focus on the 'value and perceptions', 'research, amenity and education', 'condition and forces for change' and 'rarity and vulnerability' which has been used to summarise the perception of the character and how it may be impacted.</p>
7.13	7.13 Paragraph 3.5.3 – we do not agree that “The historic character of a seascape can be defined by its dynamic nature and ability to accommodate change. Perceptions of the seascape are also dynamic and subjective to the public and time.” The implication in this assumption is that dynamic change constantly occurs therefore character constantly changes, therefore there can be no historic character at risk of change. It is also the case that a primary principle for HSC methodology is objectivity and is not specifically tied to the assumed perspectives of the public. The approach advocated here unhelpfully conflates HSC with SLVIA. Furthermore, the losses associated with First World War U boat attacks cannot be considered “dynamic”	See the Applicant's response in References 5.17 and 7.12.
7.14	7.14 Paragraph 3.5.5 – it is important to add that the HSC methodological approach was developed prior to construction of Rampion 1 Offshore Wind Farm, which was commissioned April 2018. Also, the correct reference is National Historic Seascape Characterisation Consolidation database which provides a geo-spatial database with accompanying guidance.	See the Applicant's response in References 5.17 and 7.12.
7.15	7.15 Paragraph 3.5.26 – the text provided doesn't appear to consider change due to physical presence of Rampion 1 and 2 and there are assumptions made e.g. regarding navigation that may or not contribute to safer navigation such as marine traffic forced elsewhere and at risk from other hazards.	See the Applicant's response in References 5.17 and 7.12.

⁵ Cornwall Council (2008) *England's Historic Seascapes: HSC Method Consolidation* [data-set]. York: Archaeology Data Service [distributor] [Online] Available at: <https://doi.org/10.5284/1000033> Accessed 24 April 2024.

⁶ SeaZone Solutions Limited (2011) *England's Historic Seascapes: Demonstrating the Method*. York: Archaeology Data Service [Online] Available at: <https://doi.org/10.5284/1000144>. Accessed 24 April 2024.

⁷ LUC (Land Use Consultants) (2018) *National Historic Seascape Characterisation Consolidation*. York: Archaeology Data Service [Online] Available at <https://doi.org/10.5284/1046273> Accessed April 2024.

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7.16	7.16 Paragraph 3.5.41 – we do not agree with the process of selecting a broad character type to determine change given that all the broad character types contribute to perception of character against which there should be consideration of change as introduced by the proposed Rampion 2 project. We therefore cannot see how conclusions of no change, natural or positive (e.g. “military” as described in paragraphs 3.5.68 to 3.5.72) can be drawn.	See the Applicant's response in References 5.17 and 7.12.
7.17	7.17 Paragraph 3.5.52 – the conclusion that historical seascape perception of fishing as a deeply ingrained and traditional economic role for many coastal communities is assessed not to change does not appear to be substantiated by the information provided.	See the Applicant's response in References 5.17 and 7.12.
7.18	7.18 Paragraph 3.5.56 – it is unfortunate that no consideration was given to the change introduced by new industry and associated servicing requirements that is likely to be more than “neutral” in terms of perception of how ports and docks are utilised and redeveloped. Furthermore, there is no logical demonstration of why “coastal infrastructure”, “communications”, “settlement” or “woodland” were included.	See the Applicant's response in References 5.17 and 7.12.
7.19	7.19 Paragraph 3.5.58 – the argument made regarding public awareness of historic and recreational dive areas following the identification of wreck locations during “archaeological surveys” is not correct. Archaeological surveys have yet to be conducted although there is the future potential for “greater understanding, respect and enjoyment of the seascape”. Therefore, any conclusion regarding “positive” outcome is directly related to how the development space is managed and public access facilitated together with proactive investment in public information.	See the Applicant's response in References 5.17 and 7.12.
7.20	7.20 Paragraph 3.5.85 – it is not possible to conclude that Rampion 2, through an increase in research and awareness following archaeological surveys, will produce an “impact” that can be considered to be “positive”. The loss of resource and access to in-situ palaeo-environmental evidence will be permanently due to sub-seabed infrastructure that will not be removed, as acknowledged in paragraph 4.3.1 and the acknowledgement of the existence of “complex prehistoric landscapes” and how there will be “direct impact to deposits” (paragraph 5.5.2).	See the Applicant's response in References 5.17 and 7.12.
7.21	7.21 Paragraph 3.5.88 – the impact of the development on peat is described as positive “thanks to an increase and awareness following archaeological surveys”. Whilst “the perception of peat” is unlikely to be impacted by Rampion 2, the preserved organic and minerogenic remains that make up the peat will suffer detrimental impacts. Even after samples of peat have been analysed and palaeo-environmental evidence interpreted, the disturbance or destruction of peat and the release of carbon dioxide cannot be seen as a positive.	See the Applicant's response in References 5.17 and 7.12.
7.22	7.22 Paragraphs 3.5.96 & 3.5.97 – the claim that no change is determined is not substantiated by the conclusion drawn in Chapter 15 which through the use of “marine character types” has utilised historic character information. Furthermore, the statement that “no significant change in the multiple characters and dimensions of the marine environment as a result of Rampion 2 in isolation or cumulatively with neighbouring developments is identified” cannot be understood or accepted on the basis of the information presented.	See the Applicant's response in References 5.17 and 7.12.

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7.23	7.23 Section 4 Geophysical assessments – Paragraph 4.1.2 – it is correct that all anomalies will be considered throughout the project and Table 4-1 (Summary of archaeological anomalies) and Annex E and F provide important information to inform this project should it progress e.g. the identification of thirty anomalies assessed as “high archaeological potential”.	Noted, the Applicant has no further comments on this matter at this time.
7.24	7.24 Paragraphs 4.3.18 and 4.3.29 – highlight the importance of including survey results from Rampion 1 to inform the assessment for Rampion 2, especially the depth of deposits of geoarchaeological interest and correlation with proposed engineering designs for the proposed Rampion 2 development (vis. ES Chapter 1 and WTG foundation designs) or even surface exposed peat deposits as alluded to in paragraph 4.3.19 and Table 4-2.	Noted, the Applicant has no further comments on this matter at this time.
7.25	7.25 Paragraph 4.3.53 – we agree with the focus on sampling peat and understanding its association with the broader onshore and offshore palaeo-landscapes. However, it is clear that the extent of peat across the offshore area is still poorly understood and needs further investigations through geotechnical and geoarchaeological sampling to support the ambition of producing an “outline deposit model” (as mentioned in 4.3.56) using a staged geoarchaeological assessment process as should be explained within an Outline Marine Written Schemes of Investigation	Noted, the Applicant has no further comments on this matter at this time.
7.26	7.26 Section 5 Mitigation – Paragraph 5.2.2 – on the basis of the information presented we are prepared to accept the proposed use of Archaeological Exclusion Zones (e.g. 100m or 50m radius) in reference to “known marine heritage receptors”. However, it is not understood why no attempt was made to qualify the existence of heritage assets as clearly defined “receptors”, as set out in National Policy Statements, UK Marine Policy Statement and published South Marine Plans. It is important to add that the suitability of 50m AEZ is predicated on the acquisition of high-resolution survey data to fully comprehend the nature of identified wreck complexes (i.e. debris fields), so that spatial extent of AEZ polygons can be employed effectively, as presently illustrated in Figure 7.7.	<p>Paragraph 5.2.2 within Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) clearly outlines how the AEZ were assigned based on the existence, as understood from both baseline and geophysical assessments of marine heritage receptors.</p> <p><i>“Precautionary AEZs of 50m radius are recommended for all known marine heritage receptors. Of the 179 known marine heritage receptors detailed above, 28 have been identified in the geophysical data and assigned specific AEZs”</i></p> <p>As per section 2.4.5, the geophysical data quality, for archaeological purposes, across all shallow geophysical data was identified as Good, allowing the confidence to employ effective AEZs.</p>
7.27	7.27 Sub-section 5.3 Mitigation (for unlocated marine heritage receptors) – sets out a sensible approach for dealing with presently unknown archaeological materials, as might be encountered by this proposed development at any stage. However, reference to embedded environmental measures (e.g. paragraph 5.3.2) should also embrace the concept of “adaptive” mitigation, whereby archaeological information proactively informs the design of the proposed development (i.e. WTGs and cable routes), as alluded to in sub-section 5.4. We add further that the suggested mitigation for deposits of geoarchaeological potential requires direct acknowledgement that materials are likely to be lost and therefore the crucial point is to agree how that loss of evidence can best be offset (e.g. sampling sites as illustrated in Figure 7.8). Sub-section 5.6 (Mitigation for unexpected archaeological discoveries) gives very cursory attention to employment of an agreed protocol system for archaeological discoveries e.g. as might occur during construction, without acknowledgement of how any such system must be organised and delivered by a professional, accredited and experienced retained archaeological advice service (as mentioned in embedded mitigation measure C-58 and in the Outline Marine Archaeological WSI (Document Ref: 7.9, PINs Ref: APP-235).	<p>Sub-section 5.3, Sub-section 5.4 and Sub-section 5.6 within Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) outline which of the embedded environmental measures are relevant for the receptors identified and detailed within this baseline and geophysical assessment.</p> <p>Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) details relevant embedded environmental measures within the design and how these affect the marine archaeology assessment.</p> <p>The Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) provides further details on the application of embedded environmental measures.</p> <p>The Applicant states in Chapter 16: Marine archaeology, Volume 2, [APP-057] (updated at Deadline 3) that the Protocol for Archaeological Discoveries (PAD) defines the procedure that will be followed if unexpected assets (defined as marine heritage receptors) are identified not that it will be relied on nor provide mitigation.</p>

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		<p>As outlined in Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) it is recognised that all phases of the development may cause direct impact to deposits which have the potential to be of geoarchaeological interest. The impacts are not mitigated by avoidance but offset by the collection and assessment of the deposits, as detailed in Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3). Future geoarchaeological assessments will be undertaken using a staged geoarchaeological approach to assessment and analysis of the collected geotechnical data resulting in project reports and a deposit model. The assessments will be used to contribute to seabed mapping and modelling of submerged prehistoric landscapes, resulting in a greater understanding of the prehistoric past and the use and habitation of submerged former terrestrial landscapes.</p>
<p>11 Comments on Outline Marine Written Schemes of Investigation Date: August 2023; Revision A; Document Ref: 7.9 (Document Reference 6.3.14.2) PINs Reference: APP-235</p>		
11.1	<p>11.1 Executive summary – document does not reference a protocol system for reporting discoveries of possible archaeological interest (as mentioned in paragraph 1.1.7). Section 1.2 (introduction) – it is important to see highlighted pre-construction activities comprising: • survey and site investigations; and • seabed preparation.</p>	<p>The Executive summary has been updated to include Annex A (PAD), Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).</p>
11.2	<p>11.2 Paragraph 2.4.1 – reference should clearly be made to Historic England as a single entity to avoid any unnecessary confusion.</p>	<p>Paragraph 2.4.1 outlines the main archaeological curators involved in the agreement of the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) and subsequent mitigation works. The area seaward of Mean Low Water Springs (MLWS), follows different planning guidance than landward of MLWS. Historic England's participation is outlined in Marine Licensing and England's Historic Environment (2015).</p> <p>Paragraphs 2.4.1, 2.4.2 and Annex A have been updated from defining Historic England, Coastal and Marine Planning to refer only to Historic England.</p>
11.3	<p>11.3 Section 3 (Proposed Development Details) – the possible development details quoted do not match the two development specifications set out in Chapter 4 (Proposed Development) or Chapter 16 (Table 16-15) which are up to 90 smaller WTG types or 65 larger WTG types. We make this point as it is not explicitly made clear if only the 90 smaller WTG design is being described as the “worst case” scenario (vis. ES Chapter 2, paragraph 4.1.7). We make this point in reference to the risk to either the known or presently unknown historic environment, as might be impacted (directly or indirectly) by installation craft and WTG foundations designs such as suction buckets, as these will have the most direct impact upon submerged archaeology.</p>	<p>The assessment has used the 65 larger type wind turbine generators (WTGs) as the worst-case scenario, as the seabed disturbance for this would be greater for this scenario than the 90 smaller type WTG. The description of the Proposed Development provided in Section 3 is taken from Chapter 4: The Proposed Development, Volume 2 of the ES [APP-045]. The worst-case scenarios for each assessment is explained in detail in Pre-Exam Procedural Deadline Submission - 8.23 – Examining Authority requested additional information - Revision A [PEPD-041].</p>
11.4	<p>11.4 Paragraph 3.1.4 – it is not clear why details are provided about the possible cable route landward of MLWS.</p>	<p>The description of the Proposed Development provided in Section 3 is taken from Chapter 4: The Proposed Development, Volume 2 of the Environmental Statement [APP-045] and is provided for context in all the standalone documents submitted with the Application.</p>
11.5	<p>11.5 Section 5 (Summary of archaeology and cultural heritage baseline) – the detail provided here duplicates information effectively provided elsewhere in the ES (e.g. Table 5-1). The only WSI relevant information is that provided in sub-sections 5.5 (geophysical assessment) and 5.6 (sedimentary horizons).</p>	<p>Section 5 presents a summary of the known and potential archaeology within the marine archaeology study area.</p>

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11.6	11.6 Section 5.7 (Historic Seascape Characterisation) is to be removed as it is not relevant to the primary purpose of a WSI. It is the purpose of WSI to set out a clear methodological approach to how post-consent/pre-construction survey campaigns are designed, planned and delivered to incorporate archaeological objectives and thereby directly inform subsequent engineering design.	<p>The approach taken is in accordance with recently consented OWF such as Hornsea 4 and East Anglia Two and the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) states that; <i>"A WSI... outlines the known and potential archaeological receptors that could be impacted by the scheme"</i>.</p> <p>Section 5.7 outlines a summary of the HSC as part of the baseline assessment only. The inclusion of HSC as part of the baseline as a receptor was discussed at an ETG (16/6/2022, page 649 of the Evidence Plan (Part 1 of 11) [APP-243]). It was clarified that no further data capture is proposed.</p> <p>The approach taken is in accordance with recently consented OWF such as Hornsea 4 and East Anglia Two and the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) states that; <i>"A WSI... outlines the known and potential archaeological receptors that could be impacted by the scheme"</i>.</p>
11.7	11.7 Section 5.8 (Research Frameworks) – the North Sea Prehistory Research and Management Framework is not included, which is also spatially relevant to the Eastern English Channel.	Reference to the North Sea Prehistory Research and Management Framework (Eastern English Channel, 2024) ⁸ was not available at submission but has been added to the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) The framework will be included in future Method Statements detailed in the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).
11.8	11.8 Section 5.9 (Relevant legal protection) – neglects to include the Merchant Shipping Act 1995 and the duty to report legally defined wreck material.	<p>Section 5.9 Relevant legal protection outlines Acts actively protecting heritage receptors.</p> <p>The Merchant Shipping Act, 1995 is included in relevant sections within the outline WSI (6.7, 7.4, 8.11 and Annex A) The Act does not legally protect heritage receptors but ensures that wreck material is being reported to the Receiver of Wrecks. Part IX of the Act explains that the Receiver of Wreck is an official post of the British government whose main task is to process incoming reports of shipwrecks in order to give legitimate owners the opportunity to retrieve their property and ensure that law-abiding finders of wreck receive an appropriate reward.</p>
11.9	11.9 Section 6 (Embedded Enviro Measures) – Paragraph 6.1.3 states that the Outline Marine WSI was developed in consultation with the Regulator (MMO) and Archaeological Curators to form a framework that presents mitigation strategies. However, it is also apparent that detailed advice that we provided during pre-application (our letter dated 8th April 2022) on the (draft) outline WSI, such as removal of HSC content, has not been acted on.	All responses to Historic England's letter dated 8th April 2022 were discussed at the ETG 16/06/2022, page 649 of the Evidence Plan (Part 1 of 11) [APP-243] . Changes in line with Historic England's comments were proposed. Eight comments, among them the inclusion of HSC as a receptor within the baseline summary was focused on during the ETG, also see the reply to 11.16 and Evidence Plan Process: Seascape (SLVIA) and Marine Archaeology Expert Topic Group Meeting, 16/06/22, page 649 in Evidence Plan (Part 1 of 11) [APP-243] .
11.10	11.10 Paragraph 6.1.5 – we must also draw your attention to the statement that "Any intrusive activities associated with pre-construction works will be planned to avoid any	All intrusive activities undertaken during the life of the project will be routed and micrositied to avoid any identified marine heritage receptors, with Archaeological Exclusion Zones

⁸ Research Frameworks (2024) *North Sea Prehistory Research and Management Framework; Eastern English Channel*. [Online] Available at: <https://researchframeworks.org/nsprmf/resource-assessments/regional-resource-assessment/eastern-english-channel/>

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11.11	<p>identified marine heritage receptors and AEZs as detailed in the embedded environmental measures (C-60...) However, a crucial factor is that while the conducting of "intrusive activities" should not impact known heritage assets, it must also be acknowledged that it is the purpose of the WSI to inform the planning of those "intrusive activities" to capture historic environment information through prior geophysical, geotechnical or visual inspection programmes vis. embedded mitigation measure C-59 (table 6-1).</p> <p>11.11 Table 6-1 – measures to be employed during pre- and post-construction and decommissioning are mentioned, but not during construction despite being implied in Graphic 1, which suggests that further geophysical surveys may occur; it is essential, for effective use of an amended version of this WSI that it should adhere to the guidance already referenced in the text.</p>	<p>(AEZs) (buffers) (C-60, Table 6 1) unless other mitigation is agreed with Historic England as per Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) (C-57, Table 6 1).</p> <p>The approach taken is in accordance with recently consented OWF such as Hornsea 4 and East Anglia Two and the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021).</p> <p>The embedded environmental measures detailed within Table 6-1 have been updated not to reference specific project stages but refer to measures being applied during the "life of the project" C-57, C-60 and C-277 have been updated, see reply 5.11 for details.</p> <p>The approach to archaeological works during the life of the project is in accordance with recently consented OWF such as Hornsea 4 and East Anglia Two and the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021).</p>
11.12	<p>11.12 Section 6.2 (Embedded environmental measures for known wrecks and obstructions) – the text does not mention the application of 100m AEZ which must be explained, as they are included in Table 6-2. We add also that while an attempt has been made to determine "archaeological significance" using guideline published by DCMS in 2013, we consider a more effective strategy would have been to determine whether or not sites encountered could be identified as heritage assets (as described within EN-1, published November 2023, as defined in paragraph 5.9.3). The identification of a heritage asset marks the first stage in subsequent assessment by Historic England as to whether national importance is identifiable. This point is applicable to this project given the possibility of sites that could subsequently merit attention for designation within the English Inshore marine planning area.</p>	<p>Section 6.2 within the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3);</p> <p>The 100m AEZ are referred to as specific AEZ (Section 6.2.2) as the AEZ is not modelled on a centre point but around the extent of the wreck material visible in the geophysical data, the AEZ's are broadly 100m radius. This is further discussed in sections 5.5.2 6.47 and 6.4.8.</p> <p>EN-1 (2011) Paragraph 5.8.8 states that: <i>"As part of the ES (see Section 4.2) the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the applicant should have consulted the relevant Historic Environment Record (or, where the development is in English or Welsh waters, English Heritage or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact"</i></p> <p>EN-1 (2023) Paragraph 5.9.10 states that: <i>"The applicant should provide a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the applicant should have consulted the relevant Historic Environment Record (or, where the development is in English or Welsh waters, Historic England or Cadw) and assessed the heritage assets themselves using expertise where necessary according to the proposed development's impact".</i></p>

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11.13	11.13 Sections 6.3 (Embedded environmental measures for unlocated marine heritage receptors) and 6.4 (Embedded environmental measures for geophysical anomalies of archaeological potential) – the text here explains what each (embedded mitigation) measure is supposed to do without providing any information about the surveying methodology necessary to delivery that measure.	The methodology used for the archaeological significance assessment is outlined within Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) and is in accordance with EN-1 (2011) and EN-1 (2023).
11.14	11.14 Paragraph 6.4.5 – the text states that “Further investigation of these sites will occur during future surveys works, where possible.” This statement is unacceptable in reference to National Policy Statements EN-1 and EN-3 (published November 2023) and the attention directed at the historic environment.	The Applicant is not clear on which part of EN-1 and EN-3 deems paragraph 6.4.5 unacceptable and requests further clarification from Historic England.
11.15	11.15 Section 6.5 (Embedded environmental measures for deposits of geoarchaeological potential) – paragraphs 6.5.1 and 6.5.2 – whilst we agree with the principle of 6.5.2, we disagree that palaeo-landscapes are currently mapped and understood to a level which enable precise descriptions of impact. The Marine Archaeology Technical Report describes the main channels as no deeper than 25m, but the surface levels of palaeo-channels and the extent of channel sediments is not clearly understood. Impacts caused by pre- and post-construction, construction and decommissioning activities are not described.	Section 6.5 is describing the environmental measures for deposits of geoarchaeological potential. As per embedded environmental measure C-59 (Table 6-1) any potential impact as a result of Project activities will be offset by the collection and analysis of geotechnical data, including dedicated cores for archaeological analysis. The section does not state that precise descriptions of impacts are outlined but that the impact to receptors will be restricted to the required burial and penetration depths (of the proposed development). The geoarchaeological assessment will be undertaken using a staged geoarchaeological approach to assessment and analysis of the collected geotechnical data resulting in project reports and a deposit model as prescribed in Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (COWRIE, 2011).
11.16	11.16 Paragraph 6.5.4 – we note that this (draft) outline WSI “...outlines preliminary positions for archaeology specific cores...” it is inadequate that this WSI makes no attempt to describe appropriate geoarchaeological sampling strategies. In consideration that this document has failed to set out this basic information, it becomes incumbent on any WSI subsequently produced (should consent be obtained), to correctly direct the detail to survey specific method statements for geotechnical and geoarchaeological campaigns. For example, what type of samples do the sample locations indicate on Fig.1-6? We add that, from the information provided, we expect identified areas with geoarchaeological potential to be extensively sampled and that approach described in detail.	The approach to marine geoarchaeological investigations during the lifetime of the project is covered within the Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) that state; <i>”During the pre- and post-consent phases of the OWF project, geotechnical surveys will likely be undertaken and are generally multi-purpose, such as for refining design, layout, and for discharging licence conditions including the historic environment. Surveys should be planned with reference to the applicable licensing requirements and receive the necessary licences, consents or permissions before being undertaken”</i> and <i>“During the pre-consent phase, details of how the geoarchaeological objectives will be incorporated into geotechnical surveys will be presented and agreed with the Archaeological Curator(s) prior to the start of the archaeological assessment of the data, and in the post-consent phases of the project through Method Statement(s) in response to the WSI.”</i>

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11.17	11.17 Paragraph 6.7.8 – The following should have been added to the last sentence: "...as per embedded environmental measure C-57 and the PAD."	Specific archaeological sample locations will be recommended in addition to the geotechnical samples collected for the overarching geotechnical campaign. These will be outlined in specific Method Statements as stated in section 8.4.6. Preliminary, recommended archaeological core locations, based on the 2020 sub-bottom data and desk-based data can be seen in Figure 1-6, Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3). Paragraph 6.7.8 within the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) has been updated in line with Historic England's comments.
11.18	11.18 Section 6.8 (Further archaeological works) – the statement made in paragraph 6.8.2 is unachievable, as this purported Outline Marine WSI fails to include any survey methodological approaches, which should then be targeted and elaborated in a draft method statement subject to consultation with Historic England.	Future planned works which may impact on potential marine heritage receptors and where archaeological assessment will be undertaken will require detailed method statements to be agreed by the relevant curator/s as per the Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3) which will be used to form the Draft and final Agreed Marine WSIs. Section 8 includes schemes of investigation which represents a general foundation for all further archaeological works that may be a condition of consent and will be updated, post-consent, to detail the specific packages of archaeological works that have been agreed. <i>As per Crown Estate's Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) "The WSI produced to inform the defined construction period of the consented project will include all information and data derived from the archaeological surveys conducted, in accordance with agreed Method Statements, for phases of activities occurring post-consent and pre-commencement".</i> No changes have been made to the document as further details on pre-construction surveys are not yet known.
11.19	11.19 Paragraph 6.8.3 – states that "A pre-commencement survey Draft Marine WSI" is to follow, which does question the purpose of this document, other than to duplicate information provided elsewhere in the DCO application. Paragraph 6.8.4 appears to further confirm this matter as does Table 6-4.	As per The Crown Estate's Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021). <i>"A Draft WSI should then be prepared, in accordance with the Outline WSI but building on it, containing, for instance, additional details on project design, activities and their methodologies, appropriate data review"</i> Also see Table 1 within The Crown Estate's Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) where an Indicative example timeline demonstrates the phases of development with the Outline WSI being submitted with the DCO application and a Draft WSI at Pre-commencement.
11.20	11.20 Paragraph 6.8.7 – no further HSC assessments is necessary for any element of subsequent archaeological assessments, as might be conducted for this proposed development.	Noted. The HSC assessments are concluded in Section 3.5 of Appendix 16.1: Marine archaeological technical report, Volume 4, [APP-162] (updated at Deadline 3) and no further works or analysis is planned. However, HSC continues to be a part of the archaeology and cultural heritage baseline.
11.21	11.21 Section 7.2 (Retained Archaeologist/Archaeological contractors) – it is noticeable that the text repeatedly states an advisory role to RED. However, any such service should have	The Retained Archaeologist and Archaeological contractors will stipulate the precise requirements to deliver the prescribed mitigation measures and will have the skills and competency to do so as per agreement with RED, who is responsible for engaging Retained

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	the skills and competency to not just “advise”, but to stipulate the precise requirements to delivery prescribed mitigation measures.	Archaeologists and archaeological contractors when required as per section 7.1.5, Outline Marine Written Schemes of Investigation, [APP-235] (updated at Deadline 3).
11.22	11.22 Section 7.3 (Archaeological curators) – in consideration of the attention given to subsequent WSIs to be produced (should this project progress), the curatorial body is also to be consulted on any such draft WSIs from which method statements should be produced. It is also apparent that some of the ClfA Standards and Guidance referenced should be updated to latest versions.	Section 7.3 has been updated to read: <i>As required, method statements, reports, draft and final WSI and deliverables outlining AEZs will be submitted to the Archaeological Curators by RED.</i> Section 7.3 does not refer to ClfA guidance.
11.23	11.23 Paragraph 8.1 – the following should have been included Curating the Palaeolithic (published by Historic England, 2023). Furthermore, it is inadequate that no attention is given to either the type of geophysical survey platforms to be deployed post-consent to assist project delivery planning or geotechnical survey methodologies (e.g. borehole, vibrocore optimisation or even grab sampling in consideration of surface exposed peat).	Publications updated or published after the submission of the Outline Marine Written Schemes of Investigation [APP-235] (updated at Deadline 3) have not been included as they were not available at the time of writing and were therefore not used as a principal source. Future archaeological works, including those required as a condition of consent (C-58, C-59 and C60), (updated at Deadline 3) (secured by condition 11(2) of the dMLs, Schedule 11 and 12 of the Draft Development Consent Order, [REP2-002] updated at Deadline 3) will be subject to a Method Statement outlining survey platforms and survey methodologies.
11.24	11.24 Section 8.8 (Ordnance) – the statement made in paragraph 8.8.6 that if there is no UXO contractor on-board, that an archaeologist if present is to “...follow procedures set out in the Archaeological Watching Brief method statement” must be checked to ensure compliance with all prescribed procedures set by UK Health and Safety Executive.	Section 8.8 is worded as per Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) section 12.7. The relevant Method Statement will set out how to deal with the discovery of ordnance should it deemed marine licences be encountered.
11.25	11.25 Section 9 (Arrangements for review of the WSI) – this Outline Marine WSI has not presented any mitigation measures based on the archaeological assessments undertaken in preparation of the Rampion 2 ES. Furthermore, no methodological frameworks for the archaeological analysis and interpretation of survey data throughout the lifetime of the project have been set out in this WSI. We also do not agree with the approach set out in paragraph 9.1.4 regarding a preparation of a subsequent “Draft Marine WSI” in consideration of the failure of this document to offer any methodological approach as explained herein.	The approach taken is in accordance with the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) which states that: <i>“A Draft WSI should then be prepared, in accordance with the Outline WSI but building on it, containing, for instance, additional details on project design, activities and their methodologies, appropriate data review”</i> Mitigation measures are presented as Embedded environmental measures, Table 6-1. All archaeological assessments to date and the results including AEZ are outlined in section 5. Section 8 includes the schemes of investigation and represents a general foundation for all further archaeological works that may be a condition of consent. Any future archaeological works, including those required as a condition of consent, will be subject to a Method Statement (C-58, C-59 and C60), (secured by condition 11(2) of the dMLs, Schedules 11 and 12 of the Draft Development Consent Order, [REP2-002] updated at Deadline 3).
11.26	11.26 Paragraph 9.1.5 we do not agree with this approach. It is our advice that the planning of pre-commencement surveys are to be informed by a Marine WSI approved by the MMO in consultation with Historic England, so that the surveys conducted are informed by archaeological objectives; this is the most efficient way to inform the planning of the	The approach taken is in accordance with recently consented OWF such as Hornsea 4 and East Anglia Two and the Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021)

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	<p>distribution of turbines (including quantity and spacing), offshore substation locations, and offshore export cable routes. It is possible that new heritage assets will be discovered for which subsequent targeted archaeological investigation could be required to inform the placement of adequate AEZs. It is also possible that our understanding of sites or anomalies could change requiring an adaptive approach to mitigation design and delivery.</p>	<p>Paragraph 9.1.5 follows the guidance set out in Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects (The Crown Estate, 2021) that states: <i>Pre-consent- pre-commencement</i> <i>"Pre-commencement survey Draft WSI (based on the Outline WSI) to be agreed with the Regulator prior to surveys taking place to ensure archaeological objectives are taken into account"</i> As per Crown Estate's <i>Archaeological Written Schemes of Investigation for Offshore Wind Farm Projects</i> (The Crown Estate, 2021). <i>"A Draft WSI should then be prepared, in accordance with the Outline WSI but building on it, containing, for instance, additional details on project design, activities and their methodologies, appropriate data review"</i></p> <p>Specific survey details will be outlined in specific method statements as stated in the Outline Marine Written Schemes of Investigation (WSI) [APP-235]. Details will also be included in the Draft Marine WSI. Minor changes have been made to the document to clarify this. An updated version will be submitted in due course.</p>
11.27	<p>11.27 In summary, it is apparent that no geoarchaeological assessment has been conducted and the geophysical methodology is not sufficiently detailed. We still do not understand the landscape features in enough detail to know what the level of impact will be from this proposed development. Furthermore, none of the information submitted discuss potential impacts throughout the project and its defined stages. During pre-application and in response to the Preliminary Environmental Information Report, we have explained the importance of scale when analysing and interpreting places/landscapes as opposed to individual finds such as wrecks and aircrafts. It is therefore essential that a thorough and extensive geoarchaeological approach is set out in a WSI, as it is clear that the palaeo-landscape that is known to exist across the proposed development area, which potentially could be associated with some of the first hominin presence in the British Isles, is irreversibly and pervasively damaged.</p>	<p>Specific archaeological sample locations will be recommended in addition to the geotechnical samples collected for the overarching geotechnical campaign. These will be outlined in specific method statements as stated in the Outline Marine Written Schemes of Investigation [APP-235].</p> <p>Further and as outlined in Outline Marine Written Schemes of Investigation [APP-235] Section 6.5 the assessment has provided information on the location of palaeolandscapes within the marine archaeology study area and it is recognised that all phases of the development may cause direct impact to deposits which have the potential to be of geoarchaeological interest. The impacts are not mitigated by avoidance but offset, by the collection and assessment of the deposits, as detailed in Outline Marine Written Schemes of Investigation [APP-235]. Future geoarchaeological assessments will be undertaken using a staged geoarchaeological approach to assessment and analysis of the collected geotechnical data resulting in project reports and a deposit mode. The assessments will be used to contribute to seabed mapping and modelling of submerged prehistoric landscapes, resulting in a greater understanding of the prehistoric past and the use and habitation of submerged former terrestrial landscapes.</p>
11.28	<p>11.28 It is apparent that we must, again, explain the importance of generating information that will enable dating of the deposits preserved within the palaeo-channels in order to determine their archaeological and palaeo-environmental potential and significance and test the geophysical results. In our advice in July 2022 to the Applicant, we stated that any preliminary geotechnical survey campaign undertaken to inform engineering questions should also be informed by geo-archaeological objectives to ensure maximum value was obtained from time and effort. We are not aware that any such coordination occurred. However, the principle is still applicable that to obtain geoarchaeological understanding, cores will be required in different locations (as alluded to in paragraph 6.5.3 and Figure 1-6) to those located for geotechnical engineering purposes. Therefore, not only do we need early engagement and liaison with the teams planning the geotechnical surveys, and access to the intact cores they recover, but we are likely to need additional cores, recovered specifically for geoarchaeological purposes. Furthermore, liaison between the offshore and</p>	<p>Noted, the Applicant has no further comments on this matter at this time.</p>

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	<p>onshore archaeological/geoarchaeological contractors should be coordinated to provide more robust results. It is also important that data from Rampion 1 and other relevant projects are integrated into the landscape study. The Applicant needs to acknowledge that additional fieldwork (i.e. further dedicated cores) in areas that will be impacted by foundations and seabed cable trenches could be required.</p>	

3. References

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