Eastern Green Link 2 - Marine Scheme

Environmental Appraisal Report

Volume 3

Appendix 6.1- Scoping Report Responses

nationalgrid

Scottish & Southern Electricity Networks
TRANSMISSION

National Grid Electricity Transmission and Scottish Hydro Electric Transmission plc

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Introduction

This appendix presents the responses from the Scoping Report in Table 6.1-1, along with how they have been subsequently addressed within the technical chapters of Volume 2: Environmental Appraisal Report (EAR).

Table 6.1-1: Scoping Report Responses

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
General	Aberdeenshire Council	Scotland	The Scottish Environmental Protection Agency (SEPA) has made no response to Aberdeenshire Council at the time of typing, however it is understood Marine Scotland have received correspondence from SEPA stating no comments are made. Should I receive a response, I will forward that on under separate cover.	Noted.
General	Aberdeenshire Council	Scotland	Having assessed your Scoping Report and having received comment from a number of consultees who will also be formally consulted on the EIA, I am content with the approach taken and the scope of the assessment, the environmental issues identified, and the methodology proposed.	Noted, appreciating that both the Marine Management Organisation (MMO) and Marine Scotland confirmed no requirement for a statutory EIA, as set out in EAR Volume 2 Chapter 3: Legislative Framework.
General	Aberdeenshire Council	Scotland	I hope the above information is of assistance. Obviously during the processing of any associated application/consultation, other issues may become apparent following consultations with appropriate consultees.	Noted.
General	JNCC	Scotland	JNCC are of the opinion that the proposed baseline surveys will provide sufficient information to inform the Environmental Appraisal process. We request that future documents are supported by maps or diagrams detailing sampling locations in the context of the proposed cable corridor, to allow us to best understand how site-specific any information provided is, and to provide meaningful conservation advice relating to the local environment.	Noted, a wide range of maps and diagrams have been produced to support the chapters that rely on date from the site specific baseline surveys such as Chapter 8: Benthic Ecology.
Project Description	Aberdeenshire Council	Scotland	Infrastructure Services (Flood Risk and Coast Protection) request details of the landing and onshore burial method, be it trenching or Horizontal Directional Drilling (HDD).	HDD will be used to install the cable at the landfalls, more information is provided in EAR Volume 2 Chapter 2: Project Description.
Project Description	Marine Scotland Science	Scotland	Where external cable protection is required, MSS advise that consideration should be given to matching the type of cable protection with the receiving habitat, i.e., using grout or sand bags over soft sediment (where burial is not possible) and mattresses over hard ground.	EAR Volume 2 Chapter 2: Project Description provides a description of the proposed external protection to be utilised by the Marine Scheme.
Project Description	NatureScot	Scotland	We are aware that currently there is no requirement for the planning of decommissioning or removal of cables. However, we advise that given the increasing shared nature of the marine space, this should be given further consideration and any requirements for cable protection measures and the cable construction should be designed to also assist with any future.	The decommissioning method is yet to be fully determined however EAR Volume 2 Chapter 2: Project Description provides information on the potential decommissioning methods considered and appraised.

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Project Description	NatureScot	Scotland	It would benefit from having a map(s) of the cable corridor with the 12nm territorial boundaries and designated sites within the main report for reference.	The requested maps have been provided in EAR Volume 2 Chapter 2: Project Description.
Project Description	JNCC	Scotland	We note that the exact scope of the project has not yet been finalised, and therefore advise that the Environmental Appraisal consider the worst-case scenario where relevant, assessing the impacts of the maximum volumes/numbers of cable protection material which may be used, and the potential for the conductors to be placed in separate trenches 30m apart. It would also be beneficial to highlight on a map any identified areas where additional cable protection may be required.	EAR Volume 2 Chapter 2: Project Description provides a description of the proposed external protection to be utilised by the Marine Scheme, including a map showing the potential locations of rock protection.
Project Description	MMO / Cefas	England	The project description in section 2.1 states cable protection will be installed, however the description of decommissioning mentions only the removal of cables, not the cable protection. The project description must confirm whether cable protection will be decommissioned or left in situ. If decommissioning of cable protection is not planned, the assessment of decommissioning impacts should consider the potential long-term effects.	The decommissioning method is yet to be fully determined however EAR Volume 2 Chapter 2: Project Description provides information on the potential decommissioning methods considered and appraised.
Project Description	MMO / Natural England	England	The MMO notes in section 2.3.3 that external cable protection has been proposed. The report must be updated to include the worst case scenario of cable protection in terms of area, volume and placement. Areas that may require additional cable protection, such as cable crossings, should be identified within the report and the area and volume of protection quantified.	The preferred method of cable protection is trenching. In areas where trenching is not possible, external protection will be deployed, such as rock berms. The expected area and volumes of rock required as a worst-case as well as the potential locations of cable protection has been provided in EAR Volume 2 Chapter 2: Project Description. This has been used as the basis for appraisal by the technical chapters in EAR Volume 2.
Project Description	MMO	England	The MMO requires the disposal locations for sediment extracted during pre-sweeping or sandwave levelling activities to be identified within the Environmental Appraisal Report to enable potential impacts to be considered.	No pre-sweeping or sandwave levelling using dredgers is proposed, therefore no sea disposals of dredged spoil will be required. This is detailed in EAR Volume 2 Chapter 2: Project Description.
Project Description	MMO	England	The MMO notes that up to 5 HDD ducts will be installed, although only 2 are likely to be utilised. It is unclear whether the same level of contingency is to be applied to the English landfall. This must be clarified and rationale for this level of contingency should be provided.	EAR Volume 2 Chapter 2: Project Description provides a description of the number of HDD ducts to be installed at each landfall, including contingency, with six ducts being drilled as the worst-case scenario.
Project Description	MMO	England	Further details on the likelihood of HDD failure and contingency and mitigation measures that may be required should this arise must be provided within the Environmental Appraisal Report.	EAR Volume 2 Chapter 2: Project Description provides a description of the number of HDD ducts, including embedded mitigation measures.

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Project Description	Natural England	England	The deposition of dredged material as a result of sandwave levelling (pre sweeping) should be fully considered and assessed within the Environmental Appraisal Report. The Environmental Appraisal Report should identify potential disposal locations to allow assessment of their potential impacts on designated sites	No pre-sweeping or sandwave levelling using dredgers is proposed, therefore no sea disposal of dredged spoil will be required. This is detailed in EAR Volume 2 Chapter 2: Project Description.
Project Description and technical chapters	Joint Nature Conservation Committee (JNCC)	Scotland	JNCC recognise that the applicant has proposed that any route preparation works be carried out as locally as possible, to minimise disturbance to benthic features. We remind the applicant that the deposition of dredged material is a licensable activity under the Marine (Scotland) Act 2010, and would therefore expect to see consideration given to the impacts of such activities at the locations of both the removal and deposition of dredged material within the Environmental Appraisal.	
Project Description and technical chapters	MMO	England	The MMO would like to make the applicant aware that the deposition of dredged material is a licensable activity under the Marine and Coastal Access Act 2009 and would therefore expect to see consideration given to the impacts of such activities at the locations of both the removal and deposition of dredged material within the Environmental Appraisal Report.	
Project Description and technical chapters	MMO / Cefas	England	The Environmental Appraisal Report must provide details of expected cable crossing protection dimensions and locations and consider potential cumulative effects with activities related to other proposed cable and pipeline routes.	EAR Volume 2 Chapter 2 Project Description includes the details of the expected cable crossing protection dimensions and locations. The cumulative effects of the project alongside other developments within the vicinity are assessed in EAR Volume 2 Chapter 16 Cumulative and In-combination Effects.
Physical environment	NatureScot	Scotland	We agree with the proposed approach on the consideration of this aspect.	Noted.
Physical environment	Scottish Water	Scotland	A review of our records indicates that there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed activity.	Noted.
Physical Environment	Marine Science Scotland	Scotland	MSS has reviewed the provided documents as well as NatureScot's advice and with regard to Chapter 6 on the Physical Environment we agree with the proposed approach and methods and have no further comments.	Noted.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Physical environment	MMO / Natural England	England	Chapter 6 is titled Physical Environment; however, it focuses mostly on physical process. The MMO requires that this chapter be updated to include marine geology and provide some discussion of regional geology, seabed sediment and composition and thickness, seabed mobility, and bedforms across the study area.	The scope of EAR Volume 2 Chapter 7: Physical Environment has been updated to include marine geology, seabed sediment and composition and thickness, seabed mobility, and bedforms across the study area.
Physical environment	MMO / Natural England	England	Physical environment receptors (Marine Geology, Oceanography, Physical Processes and Water Quality) must be identified before potential interactions can be scoped out.	Physical Environment receptors are identified and subsequently appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	MMO / Cefas	England	The MMO notes that the extent of the surveys has not been defined. This should be reviewed and updated.	Geotechnical and geophysical surveys of the Marine Installation Corridor were undertaken in 2021 (Next Geosolutions, 2022). Between KP0 and KP213.4, the 2021 geophysical and geotechnical survey was descoped and the data collected supplemented with that collected by MMT in 2012 along the same survey corridor. The type of data integrated from the 2012 survey reported by Next Geosolutions in 2021, consists of bathymetric contours, seabed features, seabed geology, side scan sonar contacts, magnetic anomalies and geotechnical logs. The findings of which have been used to characterise the baseline environment of the Study Area. More information on these surveys can be found in EAR Chapter 7: Physical Environment Section 7.4.2. Additionally, pre-installation surveys will be undertaken to inform detailed engineering and cable installation planning as described in EAR Chapter 2: Project Description.
Physical environment	MMO / Cefas	England	Section 6.3 does not mention topographic/bathymetric data in the intertidal. This data will be required during impact assessment as the coastline at the English landfall location is eroding. This must be reviewed and updated.	The scope of the site specific surveys undertaken included a topographical survey of the intertidal. However, the Marine Scheme is proposing to HDD under the intertidal area at both landfalls, therefore there are no direct impacts on these areas. The bathymetry of the English nearshore at the landfall site is addressed in EAR Volume 2: Physical Environment Section 7.5.1. Spatial bathymetric data near the English landfall site is also provided within the chapter.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Physical environment	MMO / Cefas	England	The MMO requires that the document be updated to outline how you intend to detect any potential impacts of the project to the intertidal topography and nearshore shallow water bathymetry and specify an appropriate extent for these surveys. The MMO would like to note that it may be the case that appropriate third party baseline datasets exist, e.g., coastal observatories programme data or Environment Agency LiDaR, however the appropriateness of the timing of these datasets for assessments and impact monitoring should be carefully considered given that the site is dynamic. The MMO would request that the applicant seek in situ observational data for suspended sediment for the Holderness Coast if available, to support assessment of changes to suspended sediments resulting from the project. Currently only satellite data is mentioned in the data sources list (Section 6.4.1). The assessments should consider the accuracy of the referenced modelled wave datasets in the coastal zone and acknowledge where uncertainty exists in modelled predictions in this area due to model resolution and complex coastal bathymetry/topography.	The nearshore bathmetry baseline is detailed in EAR Volume 2 Chapter 7: Physical Environment Section 7.5.1. Sources and datasets utilised in the preparation of the EAR Volume 2 Chapter 7: Physical Environment are listed in Section 7.4.2 and the accuracy and limitations of such datasets are noted in Section 7.4.3.
Physical environment	MMO / Cefas	England	The MMO notes no project specific modelling is proposed, and instead several existing studies are referenced which the applicant intends to use for expert assessment. Results from existing studies must be robustly assessed for their appropriateness to provide evidence for this project (in terms of location, nature of proposed activities, and methods employed), to provide assurance that project specific modelling is not required. The MMO does not consider it appropriate to rely on the conclusions drawn regarding significance of effects in assessments for other projects - project specific expert assessment is required to determine significance. Note that the location of landfall is particularly sensitive from a geomorphological perspective, and therefore a precautionary approach should be employed when determining significance.	Noted. Data from other projects has been used to support the understanding of the baseline. The potential impacts of the Marine Scheme on the physical environment have been appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6. The proposed approach to the appraisal of potential impacts on the physical environment has been discussed in Technical Workshops held with the MMO and Natural England in April and May 2022, as described in EAR Volume 2 Chapter 6: Consultation and Stakeholder Engagement. During these meetings, feedback was received that they were accepting of the adopted approach to the appraisal of potential impacts.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Physical environment	MMO / Cefas	England	Section 6.5 discusses potential physical process impacts, and a list of which impacts are scoped in or out from further assessment is summarised in Section 6.6. The impacts listed in section 6.6 do not directly correspond to the subsections in section 6.5, which makes the justification behind the conclusions which have been drawn somewhat unclear and the MMO consider there may be some errors/contradictions. This must be reviewed and confirmed which effect have and have not been scoped into assessment. Examples of what we consider unclear are as follows: • Section 6.5 indicates that "Disturbance of coastal bathymetry and bedforms at the landfall sites" will be scoped into assessment, whilst section 6.6 states that it has been scoped out. We believe that section 6.6 is erroneous in this case and that this potential effect should be scoped in (as described in section 6.5.2). In this instance, the MMO considers that "disturbance of coastal bathymetry and bedforms at landfall sites" should be scoped in. • Similarly, section 6.6 states that cable protection for the cable route at landfall sites will be scoped in, but this is not explicitly discussed in section 6.5.	A summary of the potential impacts which are screened in and out of the physical environment appraisal can be found in EAR Volume 2 Chapter 7: Physical Environment Section 7.6. Nearshore bathymetry and bedforms as well as cable protection and associated impacts throughout all project stages are appraised and scoped into EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	MMO / Cefas	England	Section 6.5.4.1 states that changes to bathymetry and bedforms as a result of installation and cable protection measures has been scoped out of assessment. Whilst the MMO can agree this in principle, for some offshore areas of the cable route, the evidence must be provided that there are no sensitive sandbanks, sandwave fields or protected features along the route to provide reassurance that the decision to scope this out is appropriate (i.e., a clearer discussion of potential for indirect impacts would be needed to justify scoping this out. This is necessary because changes to seabed morphology may affect coastal morphology as well as ecological receptors). Robust evidence that proposed sandwave levelling will not lead to any irreversible morphological change also needs to be presented to support this conclusion.	Bathymetry and seabed morphology was appraised both in the offshore and nearshore vicinity of the cable in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.

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Physical environment	MMO / Cefas	England	The potential effects to nearshore bathymetry and bedforms (where the cable approaches Flamborough Head and sections inshore of this) must be scoped in, due to the proximity of the project activities to sensitive geomorphological receptors (i.e., rapidly receding coastline) and protected areas (Flamborough Head SAC, including subtidal reefs). The assessment should consider changes due to anchoring activities associated with inshore cable installation in addition to other installation activities, including for the HDD installation, and inshore cable protection. Placement of external cable protection inshore should be minimised as far as reasonably practical given the sensitivity of the coastline geomorphological receptor (cliff recession).	The potential effects on nearshore bathymetry near Flamborough Head is assessed within EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	MMO / Natural England	England	The Environmental Appraisal Report must be updated to include consideration as to whether cable exposure and/or protection measures could result in scour (or secondary scour) and lead to the removal of seabed sediments.	The potential impacts of cable protection methods on seabed sediment and scouring is appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical Environment	MMO / Natural England	England	As highlighted in the Physical Environment comments above, Natural England consider that there is potential for the proposed works to disrupt sediment flow along the Holderness Coast, which in turn has the potential to impact on the features of Holderness Inshore MCZ (notably the geological feature). At this stage, the MMO disagree with Holderness Inshore MCZ being scoped out of further assessment at this stage.	Technical workshops have been held with the MMO, MS-LOT and Natural England in April and May 2022 to discuss the potential effects of the Marine Scheme on the Holderness Coast and the potential connection with the Holderness Inshore MCZ. This included detailed discussions on the approach adopted by the appraisal and the potential Zones of Influence of the Marine Scheme, as described in EAR Volume 2 Chapter 6: Consultation and Stakeholder Engagement. The potential effects on the Holderness Coast and potential features of the Holderness Inshore MCZ have been appraised in EAR Volume 2 Chapter 7: Physical Environment. A Marine Protected Area and Marine Conservation Zone Assessment has been undertaken to support the Marine Licence Applications as provided in EAR Volume 3 Appendix 8.3: MCZ / MPA assessment.

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Physical environment	MMO	England	The MMO notes that the nearshore environments may be highly dynamic, leading to increased risk of asset exposure at the seabed and a greater requirement of protection. Cable protection may alter hydrodynamics and sediment transport and can cause associated morphological impacts. The MMO considers that as a minimum the use of cable protection is wholly avoided within 10 m depth contour at this location. If this is not adhered to, clear justification and evidence must be provided to support the decision.	The potential impacts of cable exposure on hydrodynamics and sediment transport are appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6. The location of the likely breakout locations is provided in EAR Volume 2 Chapter 2: Project Description, which states the following indicative depths: Sandford Bay: 11 m to 20 m; and Fraisthorpe Sands: 5 m to 6 m. Therefore, there is a potential need for cable protection inshore of the 10 m depth at the English landfall at Fraisthorpe Sands. At this location, the use of cable protection inshore of these areas will be minimised to avoid sensitive coastal and intertidal habitats and features. Furthermore, technical workshops were held with Natural England to specifically discuss the use of cable protection and no further queries were raised Full details are provided in EAR Volume 2 Chapter 2: Project Description, Chapter 6: Consultation and Stakeholder Engagement and Chapter 7: Physical Environment.
Physical environment	MMO / Cefas	England	The HDD drilling pit will be 10-15 m water depth (section 2.2.1.1). Based on information presented the MMO is unsure how far offshore the HDD drilling pit will be located. The Environmental Appraisal Report must specify its location, as well as any associated cable protection, in relation to the coastline, as part of the assessment of disturbance to coastal bathymetry and bedforms.	
Physical environment	MMO / Natural England	England	The MMO requires there to be consideration as to the location of the boulders that are moved during boulder clearance from the cable corridor.	If boulders cannot be avoided, then it will be necessary to move larger stones and/or boulders out of the way so that installation equipment can operate. A typical swath of 10 m to 25 m will be cleared per cable trench and boulders will be relocated beyond this cleared trench within the Marine Installation Corridor, see EAR Volume 2 Chapter 2: Project Description. The potential impacts to the seabed bathymetry resulting from the Marine Scheme are appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.

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Physical environment	Natural England	England	Natural England is broadly content with the approach to the evidence gathering and data collection, however, there are several potential impacts of the proposed scheme on the physical environment which we would wish to see assessed within the Environmental Appraisal Report. These assessments should include establishing the magnitude of potential impacts on the hydrodynamic and sediment transport regimes (and in turn coastal or offshore morphology) due to external cable protection, cable crossings, sandwave clearance, HDD exit pits/cofferdams, and landfall construction activities.	An appraisal of key potential impacts on hydrodynamics and sediment dynamics are appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6, as relevant. The use of cofferdams is not proposed as part of the landfall process.
Physical environment	Natural England	England	In regard to cable installation activities specifically, we would wish to see assessment of the extent to which sensitive areas of seabed/substratum will be disturbed, the extent that near-seabed environmental conditions will alter in terms of suspended sediment concentrations and abrasion, the extent to which adjacent seabed areas will be smothered by the settling of disturbed material released into the water column, and the anticipated spatial and temporal change to sediment type.	The effect of sediment suspension on sensitive areas for multiple project stages within the vicinity of the marine installation corridor are appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	Natural England	England	Receptors are discussed generally but they have not been identified or listed here. Receptors should include sandbanks, designated sites water column features, surfing beaches etc. Furthermore, it would be useful to provide a map showing the Physical Environment receptors within the Zone of Influence (ZoI) of the proposed development within the Environmental Appraisal Report.	Physical Environment receptors are described in detail in EAR Volume 2 Chapter 7: Physical Environment Section 7.5. The potential impacts of the Marine Scheme on these receptors are appraised in Section 7.6.
Physical environment	Natural England	England	It would be useful to include a map of sediment transport pathways within the Environmental Appraisal Report.	A description and mapping where appropriate of sediment transport pathways have been provided in EAR Volume 2 Chapter 7: Physical Environment Section 7.5.
Physical environment	Natural England	England	Increase in metocean conditions and shoreline erosion at the landfall sites as a result of climate change – Approach to Assessment. Approach to assessment should also include assessment of vertical change in beach profile (relevant to cable burial) and coastal retreat (relevant for the siting of Transition Joint Pit infrastructure).	HDD feasibility studies considered the local rates of predicted coastal erosion to ensure that the ducts will not become exposed during the lifetime of the Project. The potential impacts of the Marine Scheme are appraised EAR Volume 2 Chapter 7 Physical Environment Section 7.6. This includes an appraisal of the future baseline conditions where appropriate. The siting of the Transition Joint Pit infrastructure is part of the Scottish and English Onshore Schemes and therefore not considered as part of this EAR.

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Physical environment	Natural England	England	Summary. The following desktop studies will be considered within the Environmental Appraisal: • Increase in suspended sediment concentrations as a result of the cable installation activities (likelihood of change, level, geographic extent and duration); • Cable protection (if present) for the cable route at landfall sites; • Climate change impact at landfalls;and • Changes to water quality from sediment disturbance. The desktop studies should also consider 'disturbance to coastal morphology/ processes at landfall locations'	Disturbance to coastal morphology/ processes at landfall locations has been considered in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	Natural England	England	Natural England note that 'Disturbance of coastal bathymetry and bedforms at the landfall sites' is to be scoped out. Further to the comment above, until further investigations have been carried out to assess potential impacts of the proposed scheme on coastal morphology processes at landfall, then this should remain scoped in.	Potential changes to seabed morphology has been appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	Natural England	England	Summary – scoping out of issues. All the issues listed here will need to remain scoped in for further assessment, until all sensitive receptors have been identified and an appropriate environment impact assessment carried out on them.	All receptors scoped into the appraisal are described in EAR Volume 2 Chapter 7: Physical Environment Section 7.5. The potential effects are appraised in Section 7.6.
Physical environment	Natural England	England	Based on the comments above, and the importance of sediment flow along the Holderness coast in maintaining the habitats of the Humber Estuary, Natural England disagrees that impacts to the Humber Estuary SPA can be scoped out at this stage. We consider that the proposals have the potential to impact on the supporting habitat of the SPA (either alone or in combination). For the same reason, we consider that the Humber Estuary SAC should remain scoped in due to potential impacts to subtidal and intertidal habitat features, as well as migratory fish.	The potential impacts of the Marine Scheme on sediment dynamics along the Holderness Coast has been appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6. The potential impacts of the Marine Scheme on the Humber Estuary SPA and SAC have been appraised in EAR Volume 3 Appendix 8.2: Habitat Regulations Assessment. The Humber Estuary SAC Annex II species present as qualifying features are sea lamprey and river lamprey, the impacts of the Marine Scheme on these features is appraised in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology and in EAR Volume 3 Appendix 8.2: Habitat Regulations Assessment.

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Physical environment	Natural England	England	It should also be noted that changes to marine and coastal physical processes as a result of external cable protection should be considered throughout the lifetime of the project and beyond.	The Holderness Inshore MCZ has been considered in EAR Voume 3 Appendix 8.3: Marine Conservation Zone and Marine Protected Area Assessment. Sediment dynamics along the Holderness Coast is considered in EAR Volume 2 Chapter 7: Physical Environment Section 7.5 and associated MCZ is considered in Section 7.6. The potential impacts of cable protection on coastal process is appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment	CEFAS	England	Linkages of potential impacts to coastal and physical processes and not generally explicitly linked to specific receptors in Section 6.5. This would aid clarity in how conclusions have been drawn to scope impacts in or out of further assessment.	A summary of the potential impacts which are screened in and out of the physical environment appraisal can be found in EAR Volume 2 Chapter 7: Physical Environment Section 7.6.
Physical environment / Benthic Ecology	Natural England	England	Assessment Method – Cable installation. The Applicant will need to carry out an assessment of the following: • The extent that sensitive areas of seabed/substratum will be disturbed during cable installation Page 4 of 7 in the offshore (subtidal) areas, as well as in intertidal and supratidal areas at landfall; • The extent that near-seabed environmental conditions will change including SSC and resulting abrasion; • The extent to which adjacent seabed areas will be smothered by the settling of disturbed material released into the water column; and • The anticipated spatial and temporal extent of change to sediment type.	The potential effects of cable installation are appraised in EAR Volume 2 Chapter 7: Physical Environment Section 7.6 and Chapter 8: Benthic Ecology Section 8.6.
Benthic Ecology	JNCC	Scotland	JNCC are content with the proposed scope of this section, as outlined in Table 7-2. All potential impacts to subtidal benthic ecology have been identified, and the proposed sources of information are appropriate. All relevant MPAs have been identified.	Noted.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Benthic Ecology	JNCC	Scotland	The proposed cable route passes within 150 m of the Firth of Forth Banks Complex Nature Conservation Marine Protected Area (NCMPA). This site is designated for: • Ocean quahog aggregations • Offshore subtidal sands and gravels • Shelf Banks and Mounds (large scale feature) • Moraines representative of the Wee Bankie Key Geodiversity Area (geomorphological feature) We note that this site has been screened in for Stage 1 MPA Assessment (Section 17.6) to accompany the upcoming Environmental Appraisal, and agree that all relevant potential impact pathways have been scoped in for further consideration. We recommend that the Guidance for Marine Licence Applicants produced by Marine Scotlandis followed when carrying out MPA Assessments for sites in Scottish waters. Please see Part 8 (Marine Protected Areas) for further detail.	A Marine Protected Area and Marine Conservation Zone Assessment has been undertaken to support the Marine Licence Applications which is provided in EAR Volume 3 Appendix 8.3.
Benthic Ecology	NatureScot	Scotland	We broadly agree with the proposed approach for this topic but disagree with the conclusion that EMF should be scoped out at this stage. Whether it is appropriate to include in this chapter or within Chapter 8 fish and shellfish ecology, we advise that EMF should be given consideration within the Environmental Appraisal. EMF levels from the cable should be modelled and consideration given to the fish and shellfish species that are present and may be affected by EMF. There is still uncertainty around the effects of EMP on both shellfish and fish species and we would welcome further consideration of this topic within both the environmental appraisal, but also as part of any strategic monitoring.	The potential effects of EMF emissions on benthic species has been appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6. The potential effects of EMF on fish and shellfish species is included in the EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.
Benthic Ecology	Marine Scotland Science	Scotland	Section 17. MSS agrees with the potential impact pathways that could affect the MPAs and MCZs.	Noted.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Benthic Ecology	Marine Scotland Science	Scotland	<u>*Sabellaria spinulosa* reef</u> MSS advise that the cable corridor may pass through an area known to contain *Sabellaria spinulosa* (Sabellaria) in 'reef' form off the coast of Peterhead. Sabellaria reef in Scotland is considered an exceptionally rare habitat. It is identified as a habitat of community interest requiring spatial protection, under the EU Habitats Directive (Annex I), although the area off Peterhead has not been considered for designation to date. In addition, *Sabellaria* in reef form is listed by OSPAR as a Threatened and Declining Habitat and is under consideration as a Priority Marine Feature. Should Sabellaria be found on the benthic survey, MSS recommend referring to Pearce and Kimber (2020) to analyse the 'reefiness', who specifically analysed Sabellaria from this region of the Scottish east coast. MSS recommend the Gubbay (2007) criteria for 'reefiness' assessment but emphasise that, given its rarity in Scotland and its ecological value, all *Sabellaria spinulosa* classed as 'reef' should be avoided and not just those that fit the description of high or medium quality reef. Of particular note, is the finding of a clumped variety of Sabellaria in this region (termed a Sabellaria bommie in Pearce and Kimber 2020) which may not fit the Gubbay (2007) criteria. These do meet many of the broader habitat definitions included in the OSPAR criteria. MSS advise that reefs corresponding to the OSPAR definition and that reefs of all grades under the Gubbay (2007) criteria are avoided where possible. In addition, due to its rarity in Scottish waters and associated biodiversity, Sabellaria which corresponds to the description of the clumped sub-type of Sabellaria reef ('Sabellaria bommies') should be avoided. In addition to the maps of Sabellaria reef in Pearce and Kimber (2020), there a number of other sources the contractor may wish to refer to. These not only document findings of Sabellaria but other protected habitats such as burrowed mud and sea pens and burrowing megafauna. Moore et al. (2017): Analysis of NatureScot & MSS underwater video Conlon et al. (2019): Report from surveys by Oceana Hywind (Equinor) EIAR (map on p 118) North Connect HVDC interconnector EIAR Pale Blue Dot – Carbon Capture and Storage EIAR	The presence of *Sabellaria* reef has been reported in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.5. The appraisal of the potential effects of the Marine Scheme on *Sabellaria* reef is provided in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6.
Benthic Ecology	Marine Scotland Science	Scotland	MSS agrees with the potential for significant effects as a result of HDD landfall and as a result of open cut trenching in the intertidal zone.	As described in EAR Volume 2 Chapter 2: Project Description, HDD drilling is proposed at both the Scottish and English landfalls. The potential effects of this on benthic ecology receptors is appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6.

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Benthic Ecology	MMO / Natural England	England	The MMO does not agree with the table 1.1 that states that the Humber Estuary Special Protected Area (SPA) and the Humber Estuary Special Area of Conservation (SAC) has been scoped out at this stage. The MMO consider that the proposals have the potential to impact on the supporting habitat of the SPA.	The potential impacts of the Project Marine Scheme on the Humber Estuary SPA and SAC have been appraised in EAR Volume 3 Appendix 8.2: Habitat Regulations Assessment. The Humber Estuary SAC Annex II species present as qualifying features are Sea lamprey and River lamprey, the impacts of the Project Marine Scheme on these features is appraised in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.
Benthic Ecology	MMO / JNCC	England	The MMO request that for any offshore MPA the relevant Site Information Centre (SIC) acts as the most up-to-date source of information on our current understanding of feature extent and distribution, and conservation advice.	A Marine Conservation Zone and Marine Protected Area Assessment has been undertaken to support the Marine Licence Applications as provided in EAR Volume 3 Appendix 8.3. The relevant SIC has been used to establish the current understanding of feature extent and distribution, and conservation advice.
Benthic Ecology	Natural England	England	The proposals have the potential to impact on coastal and nearshore process which in turn has the potential to influence a number of designated sites, including Flamborough Head Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI); Holderness Inshore Marine Conservation Zone (MCZ); and the Humber Estuary SAC, SPA (supporting habitats), Ramsar and SSSI.	The potential effects on the designated sites is considered within the EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report and Appendix 8.3: Marine Conservation Zone and Marine Protected Area Assessment.
Benthic Ecology / Fish and Shellfish Ecology	Marine Scotland Science	Scotland	Underwater Sound Impacts on Marine invertebrates MSS note that in addition to the references given, blue mussels (*Mytilus edulis*) are adversely affected by shipping noise both in terms of their behaviour and physiology (Wale et al. 2019). The review by Scott et al. (2020) also contains information on impacts of noise on invertebrates. However, MSS agree that scoping in impact of underwater noise (both construction and operational) would be difficult without more in-depth studies of thresholds of tolerance for marine invertebrates. This could be an area for strategic monitoring work.	Noted.

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Benthic Ecology / Fish and Shellfish Ecology	Marine Scotland Science	Scotland	EMF Impacts on Benthic Invertebrates MSS agree with the advice from NatureScot, that impact of EMF should be scoped in. Note recent research demonstrates that both magnetic field and the induced electric field may still be detectable by electro-sensitive and magneto-sensitive organisms even after burying (Hutchison et al. 2020). Research by authors such as Formicki et al. (2019), Newton et al. (2018) and Hutchison et al. (2021), demonstrates that magneto-receptive and electro-receptive species have evolved to respond to small changes in the Earth's geomagnetic fields and bioelectric fields. Therefore, even low levels of emissions do not necessarily translate into a reduced effect, but may instead present an EMF more perceivable to receptive species.	The effects of EMF emissions on benthic species have been appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6. Impacts of EMF on fish and shellfish species is included in the EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6 and EAR Volume 3 Appendix 2.1: EMF and Compass Deviation Assessment.
Benthic Ecology / Fish and Shellfish Ecology	Marine Scotland Science	Scotland	MSS agree with the recommendations from NatureScot. MSS also recommend that modelling of emissions is carried out for the specific type of cable being used in line with figures for emissions provided by the cable manufacturer and accounting for depth of burial or cable protection (see Hutchison et al. 2021). An assessment could be carried out for species that have previously been studied. The reviews by Gill and Desender (2020) and Scott et al. (2020) have many examples and those by Scott et al. (2020) are specifically on crustaceans. Note there is a further publication (Scott et al. 2021) on *Cancer pagurus*. MSS would welcome any monitoring work on *in situ* emissions of EMF and species effects.	Details regarding all types of emissions from the cable are described in EAR Volume 2 Chapter 2: Project Description and include EMF, heat and underwater sound. The impact of EMF and heat on benthic ecology is appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6 and Chapter 9: Fish and Shellfish Ecology Section 9.6 and Appendix 2.1: EMF and Compass Deviation Assessment.
Benthic Ecology / Fish and Shellfish Ecology	Scottish Fishermen's Federation	Scotland	7.3.5.2 EMF studies quoted are, for the most part, irrelevant to species in the North Sea. We are in a situation when Scotland's scientific authority on EMF, says there is not enough knowledge to make these claims, therefore it should be scoped in and studied in the environment, desk-top is no good. Please refer to Dr Zoe Hutchisons papers.	The effects of EMF emissions on benthic species have been appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6 and Appendix 2.1: EMF and Compass Deviation Assessment. Impacts of EMF on fish and shellfish species is included in the EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6 and Appendix 2.1: EMF and Compass Deviation Assessment.
Benthic Ecology / Fish and Shellfish Ecology	Natural England	England	We disagree that EMF disturbance should be scoped out at this stage given that the impact is uncertain. EMF should be modelled within the Environmental Appraisal Report and the potential impact on fish and shellfish species should be assessed.	The effects of EMF emissions on benthic species have been appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6 and Appendix 2.1: EMF and Compass Deviation Assessment. Impacts of EMF on fish and shellfish species is included in the EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6 and Appendix 2.1: and Compass Deviation Assessment.

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Benthic Ecology / Fish and Shellfish Ecology	MMO / Cefas	England	The MMO also notes that the current anticipated cable will have a minimum target depth of 0.6 m. However, the National Policy Statement for Renewable Energy Infrastructure (EN-3) (Dept. of Energy & Climate change, 2011) recommends minimising the potential effects of Electromagnetic Fields (EMF) by laying cables to a depth greater than 1.5 m. The effects of EMF on sensitive species may be mitigated by adopting this recommendation. The MMO requests consideration must be given to this and justification given if guidance is not followed.	The Marine Scheme is not Development Consent Order Project and therefore is not formally assessed against the National Policy Statement. Further details on consultation with the MMO where this has been discussed is provided in EAR Volume 2 Chapter 6: Consultation and Stakeholder Engagement. As described in EAR Volume 2 Chapter 2: Project Description, the target depth of lowering is 1.5 m, whereas the minimum depth of lowering is 0.6 m. The minimum depth of lowering therefore represents the worst case and this has been used to inform EAR Volume 3: Appendix 2.1: EMF and Compass Deviation Assessment. The potential effects of there worst case EMF emissions on benthic species and fish and shellfish species have been appraised in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.6 and Chapter 9: Fish and Shellfish Ecology Section 9.6, respectively. Note that there is a balance between the minimum depth of lowering and a requirement for external rock placement. For instance, increasing the minimum depth of lowering results in decreased trenching success and therefore increases the requirement for remedial rock placement.
Fish and Shellfish Ecology	Fisheries Management Scotland	Scotland	With regard to the above scoping report, the document only identifies four rivers of importance to salmon (within 50 km of the project). However, this fails to take into account that fish arising from all salmon rivers landward of the project will have to pass over the cable during their marine migration phase. On that basis, all Scottish Salmon rivers from the Ugie to the Tweed should be scoped in.	Scottish Salmon rivers from River Ugie to River Tweed are considered in the appraisal of potential impacts on them as reported in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.5.
Fish and Shellfish Ecology	Scottish Fishermen's Federation	Scotland	8.2 lists species to be studied and has "Lobster (including Nephrops)" which does not feel right? Lobster and Nephrops are two different species, therefore should be mentioned separately. No other species? Scallops? Crab? Squid? 8.6 should have defined areas for spawning/ nursery and be cognisant of matters such as ICES advice on not disturbing such as herring spawning grounds and other time bound issues, including seasonal fisheries.	EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.5 reports on the use of the Study Area by commercially important fish and shellfish species in regard to their ecology and the potential effects on these receptors are appraised in Section 9.6. Baseline information on spawning and nursery grounds has been provided in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.5. An appraisal of potential effects on these receptors has been reported in Section 9.6.

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Fish and Shellfish Ecology	Marine Scotland Science	Scotland	MSS is content that EMF effects on fish species will be scoped into the environmental assessment. MSS agree with NatureScot that EMF levels from the cable should be modelled and consideration given to the fish and shellfish species that are present and may be affected by EMF. New research from Scott et al. (2021) has shown that exposure to EMF from submarine power cables can trigger strength-dependent behavioural and physiological responses in edible crab, *Cancer pagurus*. Other research has also shown behavioural and physiological effects on a range of marine species and their life stages (Hutchison et al., 2018, 2020). The Scott et al. (2021) research was conducted in tank experiments however it highlights the need for reliable in-situ measurements of EMF levels from cables in the field. MSS would welcome any in-situ measurements of EMF levels post-construction of the cable and would encourage participation in any strategic monitoring on this topic. These measurements will contribute to improving the evidence base for in-situ EMF levels and the potential effects on marine species.	The effect of EMF emissions on fish and shellfish species is detailed in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.3.
Fish and Shellfish Ecology	Marine Scotland Science	Scotland	MSS agree that the diadromous fish receptor fish species for consideration have been correctly identified, i.e., Atlantic salmon, sea trout, European eel, sea lamprey and river lamprey. We would note • the high conservation value of diadromous fish species, with some species (salmon and the lamprey species) being included as interests in riverine SACs, • that factors in fresh water are important in determining the state of the populations and their resilience to impact, • that they have special adaptations to allow them to move between fresh and salt water, • that two of the species, salmon and sea trout, home accurately to their natal areas in fresh water, • that two of the species, salmon and sea trout, support economically important rod fisheries in fresh water and in estuaries and net fisheries (which now mainly do not operate) in estuaries and on the coast, • that the same two species, salmon and sea trout, have influential and well-informed stakeholder organisations concerned purely with their conservation and welfare. Because of these differences, diadromous fish will be assessed separately by MSS.	Potential effects to all diadromous fish species relevant to the Marine Scheme are reported in detail in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6 and EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.

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Fish and Shellfish Ecology	Marine Scotland Science	Scotland	We note the statement in 8.3 that fish and shellfish surveys will not be carried out due to the relatively plentiful publically available data on fish and shellfish in the North Sea. This is not the case for diadromous fish, although there has been some recent progress. There will be a need for the developer to review the latest information.	Potential effects to all diadromous fish species relevant to the Marine Scheme are reported in detail in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.
Fish and Shellfish Ecology	Marine Scotland Science	Scotland	The likelihood of interaction is greater close to rivers, and in shallower water, but interaction is potentially possible at much longer range because of the long-distance migration of some species. In this case, with the information currently available, we are content with the proposed 50 km cut-off. We note that the Deveron is also identified for inclusion in Figure 8-1, although it is not included, perhaps as the shortest distance by sea to it is longer than the 50 km cut-off.	Scottish Salmon rivers from River Ugie to River Tweed are considered in the appraisal of potential impacts on them as reported in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.5. The River Deveron has been scoped out of the appraisal due to its distance from the Marine Scheme.
Fish and Shellfish Ecology	Marine Scotland Science	Scotland	There is now good information available on the state and resilience of the salmon populations of each Scottish river and their potential to be impacted by any losses of fish (www.gov.scot/publications/salmon-fishing-proposed-river-gradings-for-2022-season). MSS recommend that the available information is reviewed and assessed.	The data used to describe the baseline of Scottish salmon rivers in the appraisal is reported in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.5. This includes reference to the state and resilience of the salmon populations of each Scottish river and their potential to be impacted by any losses of fish (www.gov.scot/publications/salmon-fishing-proposed-river-gradings-for-2022-season) in Section 9.5.2.1.
Fish and Shellfish Ecology	Marine Scotland Science	Scotland	We note that District Salmon Fishery Boards will be consulted. This will be particularly important at the Scottish landfall (Ugie District Salmon Fishery Board).	The District Salmon Fishery Boards were consulted, but no response was received as described in EAR Volume 2 Chapter 6: Consultation and Stakeholder Engagement and Chapter 9: Fish and Shellfish Ecology Section 9.4.
Fish and Shellfish Ecology	Marine Scotland Science	Scotland	MSS agree that the potential impact mechanisms have been identified and scoped in, including EMF. The potential for the modelled fields to affect migration of geomagnetically navigating diadromous fish will need assessed.	Impacts of EMF on relevant fish and shellfish species is included in the EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.
Fish and Shellfish Ecology	MMO / Cefas	England	The MMO does not support the potential impact of thermal emissions being scoped out of further assessment as the proposed cable route transects high intensity sandeel and herring spawning grounds. These species are known to have a close affiliation with the seabed and lay their eggs on suitable substrate. The MMO requires that thermal emissions be scoped into the Environmental Appraisal and detail known tolerance of sandeel and herring eggs to heat and specify the predicted increase in temperature on substratum sediments from operational cables.	The potential impact of thermal emissions has been included within the scope of EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.

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Fish and Shellfish Ecology	MMO / Cefas	England	The MMO note that timings of the installations have not been considered. The MMO requires that the timings of installations in areas within known spawning grounds for sandeels and herrings are considered so they take place outside spawning seasons.	The potential impact of the Marine Scheme on sandeel and herring spawning grounds is appraised in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.
Fish and Shellfish Ecology	CEFAS	England	The proposed cable route also transects important herring spawning grounds for the Banks herring stock off Flamborough Head (Ellis et al. 2012), and as such the timing of the cable installation and the potential to impact to spawning herring and their eggs and larvae should also be considered in further detail within the Environmental Appraisal.	The potential impact of the Marine Scheme on herring spawning grounds is appraised in EAR Volume 2 Chapter 9: Fish and Shellfish Ecology Section 9.6.
Marine Mammals	JNCC	Scotland	Due to its proximity to Southern Trench NCMPA (0.4 km) and Moray Firth Special Area of Conservation (SAC) (104 km), we advise that the proposed geophysical survey has the potential to disturb the minke whale and bottlenose dolphin features of the sites respectively, as both features are sensitive to disturbance from underwater noise. However, as both sites are entirely within Scottish inshore waters, we defer to NatureScot to comment on the requirements for an EPS license.	The potential effects on features of the Southern Trench NCMPA and Moray Firth SAC have been considered and reported in EAR Volume 2 Chapter 10: Marine Mammals, EAR Volume 3 Appendix 8.2: Habitat Regulation Assessment Report and Appendix 8.3: Marine Protected Area and Marine Conservation Zone Assessment. If required, an EPS license will be applied for at the relevant time prior to commencement of Installation Phase activities.
Marine Mammals	NatureScot	Scotland	We are in broad agreement with the proposed approach for this chapter. The correct species and protected site receptors have been identified. However, the list of legislation that protects marine mammals (Section 9.2) should be updated to include Scottish legislation, including: Marine (Scotland) Act 2010; Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (the Habitats Regulations).	Noted. The Scottish legislation that protects marine mammals has been included within EAR Volume 2 Chapter 3: Legislation and Policy Framework, Chapter 10: Marine Mammals and EAR Volume 3 Appendix 3.2: Topic Specific Legislation and Policy.
Marine Mammals	NatureScot	Scotland	This list of protected sites includes European sites, and we support the requirement for HRA screening. We also support the list of marine mammal sites that have been scoped into HRA (Appendix C, Table 1-1). However, the list of sites potentially affected by ‘visual and noise disturbance’ should be amended to include Moray Firth SAC (Appendix C, Table 1-2 on page 23).	Noted. The HRA Report as provided in EAR Volume 3 Appendix 8.2 includes the Moray First SAC and the list of marine mammals sites provided at scoping.

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Marine Mammals	NatureScot	Scotland	Similarly, this list includes the Southern Trench Nature Conservation Marine Protected Area (NC MPA) and we support the requirement for specific consideration of potential impacts upon this MPA. We note the proposal to adopt the MMO guidance for English MCZ assessments and apply this to the MPA (Section 17.3). We advise that this approach has merit however it should be adapted to directly answer the two tests laid out in the Marine (Scotland) Act 2010: 1. Is the proposal capable of affecting, other than insignificantly, the protected features of the MPA? 2. Does the proposal result in a significant risk of hindering the achievement of the conservation objectives of the MPA? Test 1 appears to align directly with the MCZ assessment process, but you should ensure that your assessment also directly addresses Test 2.	The potential effects on features of the Southern Trench NC MPA and Moray Firth SAC have been considered and reported in EAR Volume 3 Appendix 8.3: Marine Protected Area and Marine Conservation Zone Assessment. The relevant two tests have been quoted in this document.
Marine Mammals	NatureScot	Scotland	We also expect a Marine Mammal Mitigation Plan to be submitted for the preconstruction and construction periods of this project. We recommend seeking an EPS license for the preconstruction geophysical survey and we can provide advice on that in advance of submission.	The CEMP, as described in EAR Volume 2 Chapter 17: Schedule of Mitigation and Commitments, will be prepared by the appointed Contractor post-consent and will form the basis of the approach to mitigating the effects of the Marine Scheme on the natural and human environment, and the local community. The CEMP will be supported by a number of additional documents (including a Marine Mammal Mitigation Plan) and will address any additional requirements and conditions identified during the marine licensing process.
Marine Mammals	NatureScot	Scotland	Section 9.4 should include the Regional Baselines Report for Scottish waters: https://data.marine.gov.scot/dataset/regional-baselines-marine-mammal-knowledge-across-north-seaand-atlantic-areas-scottish	Regional Baselines Report mentioned have been reviewed and are included as a data source in EAR Volume 2 Chapter 10: Marine Mammals Section 10.4.
Marine Mammals	NatureScot	Scotland	We agree broadly with the conclusion reached, however the Moray Firth bottlenose dolphin feature should be screened in.	The Moray Firth bottlenose dolphin population have been considered and potential effects on the population appraised as described in EAR Volume 2 Chapter 10: Marine Mammals Section 10.6.
Marine Mammals	NatureScot	Scotland	It is worth noting here that the bottlenose dolphins associated with the Moray Firth are transient in nature and inhabit the whole of the East coast of Scotland and their range is expanding southerly, this needs to be reflected in the Environmental Appraisal and HRA – see comments above about their need to be screened in.	Noted. The Moray Firth bottlenose dolphin population has been appraised within the EAR and its appendices in EAR Volume 2 Chapter 10: Marine Mammals and EAR Volume 3 Appendix 8.2: Habitat Regulation Assessment Report.

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Marine Mammals	Marine Scotland Science	Scotland	MSS note that in Section 9.2, the legislative background is incomplete. In particular, this is in relation to seals, which are also included in Annex II of the Habitats Directive and are protected under the Marine (Scotland) Act 2010.	Legislation regarding the conservation of seal populations has been updated to include the Marine (Scotland) Act 2010. Further details are provided in EAR Volume 2 Chapter 3: Legislation and Policy Framework, Chapter 10: Marine Mammals and EAR Volume 3 Appendix 3.2: Topic Specific Legislation and Policy.
Marine Mammals	Marine Scotland Science	Scotland	MSS agree with the list of baseline data sources for marine mammals but note that the recent comprehensive review of density estimates for all commonly occurring marine mammal species in Scottish waters (Hague et al. 2020), should also be considered.	Hague et al (2020) has been used to inform the EAR Volume 2 Chapter 10: Marine Mammals, as described in Section 10.4.
Marine Mammals	Marine Scotland Science	Scotland	The SCANS-III block density estimates identified in the scoping report are appropriate for use in the assessment. However, for bottlenose dolphin, connectivity with the Moray Firth SAC along the east coast of Scotland, and south of the border with England, is well documented (e.g., Arso Civil et al. 2019). Therefore, as part of the HRA, MSS would expect an assessment of the impact on the SAC population of bottlenose dolphins that considers effects throughout the known range of that population. A five-year weighted average of the population estimates presented in Arso Civil et al. (2021) should be used in the assessment. This approach incorporates the variability in population estimates over this timeframe and has been discussed and agreed with University of Aberdeen and University of St Andrews, the two institutions involved in monitoring the population, and NatureScot. The weighted mean population size using data from 2015 – 2019 is 224 (95% = 214 – 234). The workings for this calculation can be provided on request.	The Moray Firth bottlenose dolphin population have been considered and potential effects on the population appraised as described in EAR Volume 2 Chapter 10: Marine Mammals Section 10.6.
Marine Mammals	Marine Scotland Science	Scotland	MSS are content with the list of protected sites designated for marine mammals in Scottish waters.	Noted.
Marine Mammals	Marine Scotland Science	Scotland	MSS are content with the potential impacts identified in section 9.5.1 to be excluded from further consideration.	Noted.

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Marine Mammals	Marine Scotland Science	Scotland	MSS note that some of the activities proposed, such as geophysical surveys and UXO clearance, are likely to require an EPS licence because of the potential to disturb or injure cetaceans. We recommend that any assessments undertaken in the environmental assessment are carried out in a way that will allow them to also inform the EPS licensing process.	As described in EAR Volume 2 Chapter 2: Project Description, it is assumed that UXO will be avoidable and no UXO clearance will be required, as such this activity is not within the scope of the EAR. If UXO clearance is required, it will be subject to separate Marine Licence and European Protected Species applications, which will be informed by dedicated environmental appraisals.
Marine Mammals	Marine Scotland Science	Scotland	Depending upon the outcomes of the assessment, there may be a requirement for a marine mammal mitigation plan to be produced, addressing vessel management and risks of noise from geophysical surveys.	The CEMP, as described in EAR Volume 2 Chapter 17: Schedule of Mitigation and Commitments, will be prepared by the appointed Contractor post-consent and will form the basis of the approach to mitigating the effects of the Marine Scheme on the natural and human environment, and the local community. The CEMP will be supported by a number of additional documents (including a Marine Mammal Mitigation Plan) and will address any additional requirements and conditions identified during the marine licensing process.
Marine Mammals	MMO / Natural England	England	The MMO notes the seal assessment the applicant has carried out and the use of reference Russel, et al (2017). The MMO requests that the applicant reviews the works by Carter et al (2020) as this is considered to be an update to the 2017 paper. In addition, relevant seal information and data can be found in the annual Scientific Committee on Seals (SCOS) reports, available on the Sea Mammal Research Unit (SMRU) website and should be incorporated into the assessment. Additional data should be sought from local marine mammal survey groups and projects, such as the North East Cetacean Project and incorporated into the assessment.	The data sources used to inform the appraisal of potential effects of the Marine Scheme on marine mammal receptors is provided in EAR Volume 2 Chapter 10: Marine Mammals Section 10.4.
Marine Mammals	MMO / Natural England	England	The assessment of impacts from underwater noise must include all aspects of underwater noise including but not limited to, geophysical surveys, detonation of unexploded ordnance and increases in vessel activity in the area.	The potential effects on marine mammal receptors are appraised as described in EAR Volume 2 Chapter 10: Marine Mammals Section 10.6. As described in EAR Volume 2 Chapter 2: Project Description, it is assumed that UXO will be avoidable and no UXO clearance will be required, as such this activity is not within the scope of the EAR. If UXO clearance is required, it will be subject to separate Marine Licence and European Protected Species applications, which will be informed by dedicated environmental appraisals.
Marine Mammals	Natural England	England	Natural England are in agreement with the potential effects being screened out for marine mammals. Not required.	Noted.

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Ornithology	RSPB	Scotland and England	The cable would pass directly through Buchan Ness and Collieston Coast SPA in Scotland and would arrive back on land between Flamborough and Filey Coast SPA and Greater Wash SPA. These are especially sensitive areas for birds and will need to be carefully considered in any future application. We note the developer has divided the project and intends on submitting separate scoping reports for the English and Scottish Sections landfall sections. Although the developer has proposed to include the cumulative effects of the different project components with the EA (Section 19.2.7), we would welcome assessment of the proposed development as a whole.	The potential effects on both Scottish and English SPAs have been appraised in EAR Volume 2 Chapter 11: Ornithology Section 11.6. The potential effects on the SPAs have been considered and reported in EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report. The potential cumulative effects resulting from the combination of Onshore Schemes and the Marine Scheme has been considered and appraised within EAR Volume 2 Chapter 16: Cumulative and In-combination Effects.
Ornithology	NatureScot	Scotland	We are in broad agreement with the proposed approach for this chapter. However, please note foraging birds from the coastal breeding sites are likely to be observed within the cable corridor although the pre-construction and construction activities are likely to be short term in nature, they are likely to cause disturbance if the works are carried out during breeding, post breeding periods etc. It is therefore worth identifying potential mitigation measures to be deployed such as vessels not steaming through rafts of birds, particularly in the immediate post breeding dispersal periods of auks (mid-August to mid-September).	An appraisal of the potential effects of the Marine Scheme on foraging birds, including consideration of embedded mitigation (as described in EAR Volume 2 Chapter 2: Project Description) has been reported in EAR Volume 2 Chapter 11: Ornithology Section 11.6. Embedded mitigation includes commitments to not steam through rafting birds, minimise vessel lighting and adherence to the Scottish Marine Wildlife Watching Code.
Ornithology	Marine Scotland Science	Scotland	The baseline environment and study area chosen by the project is to look at all sites within 10 km of the Scoping Boundary (N.B. The scoping boundary is a 1 km width corridor and it is anticipated this will be refined as the appraisal evolves) and selected sites beyond 10 km given the long foraging ranges of some bird species.	The ornithological Study Area has been defined in EAR Volume 2 Chapter 11: Ornithology Section 11.4, which has considered foraging ranges when identifying relevant sites. This approach has also been applied in EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.

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Ornithology	Marine Scotland Science	Scotland	Two Scottish designated sites, Buchan Ness and Collieston Coast SPA, and Bullers of Buchan Coast SSSI are named as relevant sites to the Marine Scheme (section 10.2). The project runs directly through Buchan Ness to Collieston Coast SPA for 760m. This site is designated for breeding seabird species and its breeding seabird assemblage. Additional protected sites are considered with respect to Habitat Regulations Appraisal (HRA) (see Appendix C) which includes SPAs designated for seabirds which as mobile species with long foraging ranges (see Woodward et al., 2019) may have connectivity to the cable corridor. Sites so far identified are listed in Table 1-1 (in Appendix C), but it is noted that this is a live list to be adjusted and updated as necessary as the scheme develops. NatureScot stated that all relevant European designated sites have been included in Appendix C, however MSS advise that Forth Islands SPA should also be included at this stage.	The potential effects on the SPAs, including the Forth Islands SPA, have been considered and reported in EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.
Ornithology	Marine Scotland Science	Scotland	Details of the construction process and specifications of the project are not available and so a formal screening exercise is not possible but a cable laying methodology will be included in the assessment. MSS recommend that indicative timelines to proposed works are presented to allow consideration of potential impacts to features of SPA, particularly those with direct connectivity with the proposed project.	Details of the potential cable installation methods and indicative timeframes have been provided in EAR Volume 2 Chapter 2: Project Description and these have been used to inform the potential effects on the SPAs. This has been considered and reported in EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.
Ornithology	Marine Scotland Science	Scotland	MSS recommend that the Stone et al. (1995) research on seabird distribution is updated by more recent research for example Waggitt et al. (2020).	Data sources, including Waggit et al., 2020 has been used to inform EAR Volume 2 Chapter 11: Ornithology as described in Section 11.4.
Ornithology	Marine Scotland Science	Scotland	We note that installation impacts in Appendix C, 'Table 1-2 Likely impact pathways associated with the installation and operation of the Eastern Link 2 scheme' include temporary habitat loss/disturbance. It is not clear if indirect impacts on foraging birds will be considered via impacts on their prey species, but MSS advise that these should be considered. Operational impacts do not consider disturbance from vessel activity even though Table 10-1 notes potential for similar effects (but more localised and transient) for these, it may be appropriate to scope this in depending on the level of operation and maintenance activity expected. Decommissioning is not included in Table 1-2, again depending on the level and type of activity expected it could be appropriate to scope this in for assessment.	An appraisal of the potential effects during the Installation, Operation and Maintenance and Decommissioning Phases of the Marine Scheme has been reported in EAR Volume 2 Chapter 11: Ornithology Section 11.6.
Ornithology	Marine Scotland Science	Scotland	NatureScot advised that potential mitigation measures should identified for limiting impacts on marine birds for both preconstruction and construction phases of the project, including e.g., vessels not steaming through rafts of birds. MSS support this recommendation.	Embedded mitigation measures and project specific mitigation measures (if required) are identified in EAR Volume 2 Chapter 11: Ornithology.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Ornithology	MMO	England	The MMO note that no specific marine ornithology surveys are planned to be completed for the project, but the Marine Environmental Assessment will draw on surveys undertaken for the Onshore Scheme at the landfall locations, where relevant. The MMO have previously accepted that for Offshore windfarm projects a minimum of 2 years of survey data around the project area and buffer are necessary, and specific surveys for the cable route have not always been required. Therefore, the same approach could be applied here, but the justification for not undertaking specific surveys should be provided. Justification of why specific ornithological surveys are not planned must be provided in the Environmental Appraisal Report.	The approach to the appraisal of potential effects on ornithological species has been reported in EAR Volume 2 Chapter 11: Ornithology. Section 11.4 provides further details on the robust and proportionate approach, as previously discussed with the MMO, and consistent with data requirements previously accepted on other cable projects, which adopted for this appraisal.
Ornithology	MMO	England	In Chapter 10 it is stated that a significant amount of publicly available ornithological data exists for the Study Area, however it is not clear what exact information will be used to assess the impacts of the project. This must be identified to enable consideration of whether the information is appropriate, for example covering the same spatial area of this project, along with the age of the survey data.	A wide range of data sources have been used to inform EAR Volume 2 Chapter 11: Ornithology as described in Section 11.4.
Ornithology	MMO	England	Whilst the potential impacts of the project on birds have been identified in Table 10.5, there are no mitigation measures proposed. There is potential for disturbance from vessels on red throated divers, which is an interest feature of the Greater Wash SPA. Mitigation measures must be identified to ensure there are no impacts to the SPA.	Embedded mitigation is described in EAR Volume 2 Chapter 11: Ornithology Section 11.6 and this has been considered during the impact appraisal. No additional project specific mitigation measures were required to mitigate potentially significant effects.
Ornithology	MMO	England	The Greater Wash SPA is not included amongst the European Sites listed as being in scope for the Habitat Regulations Assessment (HRA) on page 203, although it is included in the table of European sites above. The HRA must be updated to include the Greater Wash.	The potential effects on the Greater Wash SPA has been considered and reported in EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.
Ornithology	MMO	England	The MMO considers there to be a potential pathway for Likely Significant Effect (LSE) on guillemot from Farne Island SPA. The MMO requires this to be scoped into the assessment.	The potential effects on the Farne Island SPA has been considered and reported in EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.
Marine Archeology	Aberdeenshire Council	Scotland	Chapter 11 of the scoping report addresses Marine Archaeology. Infrastructure Services (Archaeology) acknowledge the contents of this chapter. The extent of the study area, baseline data findings and mitigation methodology are all acceptable at this stage. No other sites are suggested for inclusion within an EIA.	Noted.

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Marine Archeology	Aberdeenshire Council	Scotland	Built Heritage Neither Infrastructure Services (Environment – Built Heritage) nor Historic Environment Scotland (HES) raise any concerns regarding terrestrial heritage assets within the intertidal area. HES do however note a potential for impacts on undesignated marine historic environment features located in the vicinity of the cable landing area, notably three undesignated wreck sites within Sandford Bay: Canmore Maritime ID 115520 Canmore Maritime ID 206349 Canmore Maritime ID 292316	The three undesignated wrecks have been noted in EAR Volume 2 Chapter 12: Marine Archeology Section 12.4 and in Recorded Losses of EAR Volume 3 Appendix 12.1: Marine Archaeology Technical Report.
Marine Archeology	Historic England	England	To support production of the EA, the planned surveys should be designed to collect data for archaeological assessment, and as such early involvement of an archaeological consultant should be sought to ensure the data is appropriate. It is therefore recommended that a qualified and experienced marine archaeological consultant is commissioned to provide input to the planning stages of these surveys. Furthermore, if such survey work is to be initiated during pre-application you may wish to provide survey specifications to Historic England prior to commencement, to maximise the opportunities for archaeological assessment and analysis, and to feed into discussions of mitigation for archaeological receptors to be set out within the EA.	Noted
Marine Archeology	Historic England	England	Further to the datasets referenced in the scoping report, use of further site-specific data, for example grey literature available through the Archaeological Data Service (ADS) and available data and reports from nearby developments, such as Blyth Offshore Demonstrator Project, should be included. This would provide greater detail on known archaeological receptors of all types and periods within the study area which will require mitigation measures including avoidance, but it would also demonstrate the potential for unknown remains.	A wide range of data sources have been used to inform EAR Volume 2 Chapter 12: Marine Archaeology as described in Section 12.4.
Marine Archeology	Historic England	England	As such, the identified key guidance documents are standards within Section 11.4 are noted as appropriate but should also include Historic England (2020) 'Deposit Modelling and Archaeology: Guidance for Mapping Buried Deposits'	The guidance used to inform the appraisal on marine archaeological receptors is provided in EAR Volume 2 Chapter 12: Marine Archaeology Section 12.4.

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Marine Archeology	Historic England	England	The results of any desk-based assessment should be used in any EA produced for this proposed project to inform the final design of the proposal. The EA should therefore include decisions on whether any design changes may be necessary to avoid or minimise harm; or whether any further pre-determination and/or post-determination archaeological works may be required to further assess and/or mitigate harm.	The appraisal on marine archaeological receptors and the need for any additional project specific mitigation has been described in EAR Volume 2 Chapter 12: Marine Archaeology Section 12.6.
Marine Archeology	Historic England	England	The MMO note from Section 11.5.5 that embedded mitigation measures would include the use of Archaeological Exclusion Zones (AEZs), and micro-siting of the cable route, with unavoidable impacts mitigated through an agreed Written Scheme of Investigations (WSI). The MMO agrees and would require a WSI be produced for any marine licence applications.	Embedded mitigation measures relevant to marine archaeology are detailed in EAR Volume 2 Chapter 12: Marine Archaeology Section 12.6. The commitment to provide a WSI has been made in EAR Volume 2 Chapter 17: Schedule of Mitigation and Commitments, although this will be provided post-consent when a Contractor has been appointed and the final cable routes determined.
Shipping and Navigation	RYA Scotland	Scotland	Although there are rarely problems for recreational boating caused by cable laying, impacts on recreational craft should be scoped into the assessment and the Navigational Risk Assessment. The AIS heat map of the movements of recreational craft in the current version of the RYA's UK Coastal Atlas of Recreational Boating gives the most up to date assessment of where recreational boats on passage go. We consider that about 20% of such vessels transmit an AIS signal in the waters off the east coast of Scotland and that the routes of these craft are representative of all recreational craft on passage in this area. This estimate is based on data collected in the Pentland Firth and Northern Isles and may be an over-estimate. Most vessels will be passing up the east coast and heading for the Caledonian Canal or the Northern Isles, or vice versa. Many stop at the Peterhead Marina as it is really the only harbour accessible to typical cruising boats between Arbroath and Rattray Head. The Harbour Master of the Peterhead Bay Marina is likely to be a useful source of information on the movements of recreational vessels, including the daily and seasonal pattern of arrivals and departures.	A wide range of data sources have been used to inform EAR Volume 2 Chapter 13: Shipping and Navigation, which constitutes a Navigational Risk Assessment. This includes consultation with Peterhead Harbour Authority and use of the RYA's recreational boating atlas.
Shipping and Navigation	RYA Scotland	Scotland	Two groups of recreational vessels should be considered, visiting boats on passage and vessels based in Peterhead Marina. The owners of the latter may not belong to any sailing club but should be easy to contact.	Peterhead Marina and associated recreational vessels have been considered in EAR Volume 2 Chapter 13: Shipping and Navigation Section 13.5 and potential for effects on these receptors is reported in Section 13.6.
Shipping and Navigation	RYA Scotland	Scotland	The UK Coastal Atlas shows that from about KP20 to the border with England most recreational vessels pass inshore of the cable route. The key location to be considered is the entrance to Peterhead Harbour. Vessels of all types approach on a bearing of 314° following the leading marks.	Analysis of recreational vessels traffic within the shipping and navigation Study Area, including vessels following the leading marks, is described in EAR Volume 2 Chapter 13: Shipping and Navigation Section 13.5.

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Shipping and Navigation	RYA Scotland	Scotland	The document refers to the 2016 version of MGN 543. However, it has been revised although the new version does not seem to have been officially published.	Noted. MGN654 has been used to inform EAR Volume 2 Chapter 13: Shipping and Navigation.
Shipping and Navigation	RYA Scotland	Scotland	There are no up to date pilot books for recreational boating on the east coast of Scotland although one is in preparation. The Royal Northumberland Yacht Club Sailing Directions for Humber to Rattray Head was last fully revised in 2002. While RYA Scotland has started to encourage recreational sailors to use Kingfisher, many skippers on passage, some from outside the UK, will be unaware of it and so it is important that Notices to Mariners are posted at relevant harbours and marinas. There are more than eight bodies issuing Notices to Mariners for the east coast of Scotland up to Rattray Head and it is unrealistic to expect the skipper of a vessel on passage to be familiar with all of them, particularly as they can change quickly.	Noted.
Shipping and Navigation	RYA Scotland	Scotland	Subsea cables raise concerns regarding the safety of navigation and the operation to survey, prepare, install and maintain a subsea cable can present challenges, particularly where moving across high traffic areas. We note in section 12.4 Assessment Method, that ‘a Navigational Risk Assessment (NRA) including Marine Traffic Survey (MTS) and Formal Safety Assessment (FSA) will be undertaken to understand and address the effects. The NRA will form the Shipping and Navigation assessment chapter within the EA. The assessment methodology will be aligned to the following best practice guidance documents in so far as relevant for a cable project.	EAR Volume 2 Chapter 13: Shipping and Navigation constitutes an NRA, MTS and FSA.
Shipping and Navigation	MCA	Scotland and England	We note that 2019 AIS data will be used with six months of AIS data being purchased for a summer period May - July 2019 (inclusive), and winter period Nov 2019 - January 2020 (inclusive).	Noted.
Shipping and Navigation	MCA	Scotland and England	In section 12.4.3 Consultation we would recommend adding consultation with the Cruising Association and the RNLI.	Both the Cruising Association and the RNLI were consulted in the preparation of the EAR Volume 2 Chapter 13: Shipping and Navigation.
Shipping and Navigation	MCA	Scotland and England	Particular attention should also be paid to cabling routes and burial depth for which a Burial Protection Index study should be completed and subject to the traffic volumes, an anchor penetration study may be necessary. Any consented cable protection works must ensure existing and future safe navigation is not compromised, accepting a maximum of 5% reduction in surrounding depth referenced to Chart Datum. Under no circumstances should depth reductions compromise safe navigation.	The target and minimum depths of lowering have been informed by consideration of shipping activity, anchor and fishing gear penetration in combination with the seabed conditions. The potential effect of cable protection measures on existing and future safe navigation is considered and reported in EAR Volume 2 Chapter 13: Shipping and Navigation Section 13.6.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Shipping and Navigation	MCA	Scotland and England	The application supporting information should also consider the need for any Unexploded Ordnance (UXO) removal works.	As described in EAR Volume 2 Chapter 2: Project Description, it is assumed that UXO will be avoidable and no UXO clearance will be required, as such this activity is not within the scope of the EAR. If UXO clearance is required, it will be subject to separate Marine Licence and European Protected Species applications, which will be informed by dedicated environmental appraisals
Shipping and Navigation	Northern Lighthouse Board	Scotland	We note the intension to undertake a Navigational Risk Assessment and consult with stakeholders, including Northern Lighthouse Board.	EAR Volume 2 Chapter 13: Shipping and Navigation, which constitutes a Navigational Risk Assessment.
Shipping and Navigation	UK Chamber of Shipping	Scotland and England	The Chamber has reviewed the scoping report and finds that the areas for consideration and receptors are included as expected. Particular areas of interest include: • Increased risk of vessel collision during construction, decommissioning and major maintenance; • Snagging and anchoring risk – burial depth and protection means; • Any reduction in under keel clearance; and • Electronic navigation equipment interference and deviation	EAR Volume 2 Chapter 13: Shipping and Navigation, which constitutes a Navigational Risk Assessment. This has included consideration of increased vessel to vessel collision, snagging and anchoring risk, reduction in under keel clearance and electronic navigation equipment interference and deviation.
Shipping and Navigation	MMO / MCA	England	The MMO is content with the applicant's intent to complete a Navigation Risk Assessment (NRA). This should be undertaken to supply detail on the possible impact on navigation for both commercial and recreational craft. The NRA should address issues such as identifying traffic levels, collision risk and agreement with these stakeholders on suitable mitigation measures to reduce the risks to navigation safety to an acceptable level i.e. As Low as Reasonably Practicable (ALARP). A hazard log and risk control log must be included.	EAR Volume 2 Chapter 13: Shipping and Navigation, which constitutes a Navigational Risk Assessment. A hazard log and risk control log has been provided in EAR Volume 3 Appendix 13.1.
Shipping and Navigation	MMO	England	The MMO notes under Section 12.2.3 that the AIS data used was from 2017 and that 2019 data will be purchased to inform the NRA. The MMO recognises that 2020 data will not be used to avoid "possible abnormalities in vessel activity arising from the COVID-19 pandemic", however we would ask that more up to date data from 2021 should be obtained. Furthermore, consideration must be made of regular operators navigating in the area such as ferries or other work vessels.	As described in EAR Volume 2 Chapter 13: Shipping and Navigation Section 13.4, AIS data from 2019 and 2021 has been used to inform the appraisal of potential effects. This includes the consideration of regular operators navigating the area in Section 13.6.

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Shipping and Navigation	MMO / MCA	England	Under section 12.4.1 reference is made to MGN 543 - this has now been updated to MGN 654 and should be used as the most up to date guidance. Additional information on risk assessment methodology can be found in the MCA publication “Methodology for Assessing Marine Navigational Safety & Emergency Response Risks of Offshore Renewable Energy Installations (OREI)”.	The guidance used to inform EAR Volume 2 Chapter 13: Shipping and Navigation has been described in Section 13.2 and includes MGN654 and OREI.
Shipping and Navigation	MMO	England	In relation to the electromagnetic deviation on ships' compasses, the MMO has consulted MCA and would be willing to accept a three-degree deviation for 95% of the cable route. For the remaining 5% of the cable route no more than five degrees will be attained. The MMO would however expect a deviation survey post the cable being laid; this will confirm conformity with this requirement.	As discussed in EAR Volume 2 Chapter 13: Shipping and Navigation, if compass deviation cannot be reduced to acceptable levels through optimisation of the cable configuration, further consultation with the MCA would be undertaken to identify further mitigation. However, a worst-case assessment has been undertaken to support the EAR as provided in Volume 3 Appendix 2.1: EMF and Compass Deviation Assessment.
Shipping and Navigation	MMO / MCA / Trinity House	England	Attention should be paid to cabling routes and burial depth for which a Burial Protection Index study should be completed and subject to the traffic volumes, an anchor penetration study may be necessary. The MMO welcome the intent to bury the cable and would expect to see further details included within the NRA. Any consented cable protection works must ensure existing and future safe navigation is not compromised, accepting a maximum of 5% reduction in surrounding depth referenced to Chart Datum.	As described in EAR Volume 2 Chapter 2: Project Description, the intention of the Marine Scheme is to trench the cables to a target depth of lowering is 1.5 m. The minimum depth of lowering is 0.6 m. The minimum depth of lowering therefore represents the worst case and this has been used to inform the appraisal of potential effects reported EAR Volume 2 Chapter 13: Shipping and Navigation. Note that there is a balance between the minimum depth of lowering and a requirement for external rock placement. For instance, increasing the minimum depth of lowering results in decreased trenching success and therefore increases the requirement for remedial rock placement.
Shipping and Navigation	MMO / MCA	England	The cable route must not encroach on any recognised anchorage, either charted or noted in nautical publications, within the proposed consent area.	Recognised anchorages have been avoided as described in EAR Volume 2 Chapter 13: Shipping and Navigation.
Commercial Fisheries	Scottish Fishermen’s Federation	Scotland	P88 para 13.2 is strange words about the float local to PD, as if BIFA and SWFPA are equals?	BIFA and SWFPA are different organisations, both are relevant stakeholders for the project and have been consulted with separately (EAR Volume 3 Appendix 6.5: Report on Baseline Consultation with Fisheries Stakeholders).

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Commercial Fisheries	Marine Scotland Science	Scotland	With regards to the assessment methodology for commercial fisheries, Marine Scotland have contracted Xodus to create a 'Good practice guidance for assessing fisheries displacement by other licensed marine activities'. This guidance largely focuses on offshore renewables and their associated infrastructure such as export cables but it will have relevance for assessing any potential fisheries displacement caused by this cable project. MSS recommend referring to this guidance when it is published. The current aim for publication is September/October 2021.	The potential for the Marine Scheme to result in displacement to fishing activities has been given consideration under EAR Volume 2 Chapter 14: Commercial Fisheries Section 14.6. This guidance has not yet been published and therefore has not been used to inform the appraisal. As such it has not been included.
Commercial Fisheries	Marine Scotland Science	Scotland	With regards to consultations with the fishing industry, MSS recommends consultation with the Scottish Regional Inshore Fisheries Groups (RIFGs), as well as the other consultee organisations mentioned. This will ensure engagement with any inshore vessels that may be impacted by the inshore and landfall area of the cable.	Detailed consultation with the fishing industry has been undertaken to help inform the baseline characterisation in respect of commercial fishing. In addition to national organisations (SFF, SWPFA, NFFO), this has included direct consultation with the North and East Coast Regional Inshore Fisheries Group (RIFG), Northumberland and North Eastern IFCAs, as well as well as local fisheries organisations and individual fishermen.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Commercial Fisheries	Marine Scotland Science	Scotland	With regards to potential impacts, MSS recommends consideration of potential cumulative and in-combination effects on commercial fisheries from other licensed marine activities. In terms of the approach laid out in 'Chapter 19 Cumulative and In-Combination Effects' MSS would recommend including offshore surveys which require vessel safety zones and fisheries exclusion and Marine Protected Areas which involve fisheries management measures in the list of considerations.	Under the appraisal of cumulative and in-combination effects (EAR Volume 2 Chapter 16: Cumulative and In-combination Effects) reference has been made to MPAs where management measures that have potential to affect fishing activities of relevance to the Marine Scheme have been proposed. Information with regard to the nature, timing and/or location of survey work which may be proposed by the Marine Scheme or other plans, or projects is not currently available. As such, offshore surveys have not been considered in the cumulative and in-combination appraisal. In this context it is important to note that vessel safety zones or fisheries exclusion zones are not implemented during surveys as such. Information on potential hazards to navigation are provided in NtMs and in some cases may include advisory measures in relation to other vessel's activities in the area including fishing. Vessels undertaking survey work are required to take due regard to collision regulations and other navigation hazards. Therefore, survey works normally result in negligible disturbance to mobile fishing methods (i.e., demersal trawling, scallop dredging). Whilst survey works may on some occasions require the relocation or removal of static gear, this is not always the case. Survey vessels often work around static gear to avoid interactions and where interactions cannot be avoided co-operation agreements with affected vessels are normally established by developers/operators. As such, the contribution of potential survey works to the impacts identified for the Project in a cumulative context would be expected to be minimal.
Commercial Fisheries	Marine Scotland Science	Scotland	MSS is content with the list of potential impacts to Commercial Fisheries identified in Table 13-1, however there are no proposed mitigation measures at this stage. MSS recommends that mitigation measures for all stages of development are included in the environmental assessment for the proposed works.	The Applicants are committed to facilitate co-existence between the Marine Scheme and commercial fishing. To this end, a range of embedded mitigation measures, and where appropriate, additional mitigation, have been recommended (EAR Volume 2 Chapter 14: Commercial Fisheries Section 14.6 and 14.7).

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Other Sea Users	DIO, MOD	Scotland and England	I can confirm after investigation that the MOD has No Objection regarding this activity in the locations specified. I hope this information is sufficient for your purposes.	Noted. Military practice and exercise areas are included in EAR Volume 2 Chapter 15: Other Sea Users Section 15.5. The potential effects on the use of these areas is reported in Section 15.6.
Other Sea Users	NatureScot	Scotland	We are aware that Marine Scotland / Scottish Government are currently preparing guidance to assist with socio / economic impact assessment for renewable projects. Whilst not a renewable project - the guidance covers both social impact assessment and economic assessment as well as tool kits with practical examples to help guide developers in undertaking this if appropriate to their proposal. Further advice on this guidance, when it is to be published and if it is to be required, we assume will be provided by Marine Scotland.	Guidance used in the preparation of EAR Volume 2 Chapter 14: Other Sea Users Section 15.2.
Other Sea Users	MMO / Cefas	England	The MMO notes from figure 2-2 that the proposed English landfall site is close to two outfall diffusers. Potential interaction of project impacts with these structures must be assessed when considering potential inshore bathymetric and bedform impacts.	As discussed in EAR Volume 2 Chapter 15: Other Sea Users, the northern most diffuser is beyond the Zone of Influence for increases in suspended sediment concentration so is not considered further in the chapter. However, the closest diffuser is located 1.4 km to the north of the Marine Installation Corridor and the potential impact on its operation is considered in EAR Volume 2 Chapter 15: Other Sea Users Section 15.6.
Marine Mammals and Ornithology	NatureScot	Scotland	We broadly agree with the proposed mitigation and monitoring measures, however we would like to see a Marine Mammal Mitigation plan and Ornithological mitigation measures submitted for the preconstruction and construction periods of this project.	The CEMP, as described in EAR Volume 2 Chapter 17: Schedule of Mitigation and Commitments, will be prepared by the appointed Contractor post-consent and will form the basis of the approach to mitigating the effects of the Marine Scheme on the natural and human environment, and the local community. The CEMP will be supported by a number of additional documents (including a Marine Mammal Mitigation Plan) and will address any additional requirements and conditions identified during the marine licensing process.
General	NatureScot	Scotland	We are content that all relevant European designated sites have been included in Appendix C and all potential impact pathways considered.	Noted.
Benthic Ecology and Ornithology	Aberdeenshire Council	Scotland	In terms of Ecology, the coastline in the Boddam area has various designations: • Buchan Ness to Collieston SAC; • Buchan Ness to Collieston SPA; and • Bullers of Buchan SSSI	The conservation designations in Buchan Ness and Collieston are included in EAR Volume 2 Chapter 8: Benthic Ecology Section 8.5, Chapter 11: Ornithology Section 11.5 and EAR Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.

Topic	Body	Body jurisdiction	Full response	Additional clarification / Where and how these have been addressed in the EAR
Physical Environment, Benthic Ecology, Fish and Shellfish, Marine Mammals and Ornithology	MMO	England	The MMO consider that the Humber Estuary SPA should be scoped in based on the potential for impacts to supporting habitat arising from this project either alone or in combination.	The potential effects on the Humber Estuary SPA and its supporting habitats, including the potential for in-combination effects, has been appraised in multiple chapters of the EAR including: - Volume 2 Chapter 7: Physical Environment Section 7.5; - Volume 2 Chapter 8: Benthic Ecology Section 8.5; - Volume 2 Chapter 9: Fish and Shellfish Section 9.5; - Volume 2 Chapter 10: Marine Mammals Section 10.5; - Volume 2 Chapter 11: Ornithology Section 11.5; - Volume 2 Chapter 16: Cumulative and In-combination Effects; and - Volume 3 Appendix 8.2: Habitats Regulation Assessment Report.
Cumulative and In-combination Effects	Marine Scotland Science	Scotland	Little detail is given with regards to how the in-combination assessment will be done, MSS advise that this will need to consider the spatial and temporal proximity of this development to other developments.	The methodology for the appraisal of cumulative and in-combination effects is provided in further detail in EAR Volume 2 Chapter 16: Cumulative and In-combination Effects.