



AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement Addendum 3 – Appendix 4.3 Chapters 6-14 ES Desk Data Reviews

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations
2009 – Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

Document Ref: 7.8.3.9

PINS Ref.: EN020022

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Reviews

PINS REF.: EN020022

DOCUMENT: 7.8.3.9

DATE: APRIL 2023

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DOCUMENT

Document	Document Name
Revision	001
Document Owner	WSP UK Limited
Prepared By	INSERT
Date	INSERT
Approved By	INSERT
Date	INSERT

Chapter 6: Physical Processes

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
AQUIND commissioned surveys (geophysical, geotechnical, and benthic ecology)	MMT, 2017/2018 Natural Power, 2017	Determination of baseline conditions and parameterisation of the sediment transport modelling	None.	<p>AQUIND Ltd. commissioned surveys were critical in determining baseline conditions and parameterising the sediment transport modelling performed to assess impacts associated with the disposal of dredged sediments. Sand waves are mostly observed in areas of the seabed where sandy sediments display a median grain size of 0.2–0.6 mm; their size and shape altering through time due to the prevailing sediment transport regime and in response to higher energy storm events. Due to the relatively short period of time elapsed since the geophysical survey data were acquired the size and shape of observed bedforms is not anticipated to have changed significantly, and in turn it is not anticipated that there is any significant impact upon the assessed dredge volumes. The design of the Proposed</p>

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>Development has in any event included contingency in regard to dredge volumes. It is concluded that the geophysical and geotechnical data (which indicated a broadly homogenous surficial sedimentology) utilised remain valid, due to the inherent conservative assumptions applied within the methodologies used to determine dredge volumes and parameterise the model simulations performed, being:</p> <p>The proposed volumes of dredge material were based upon the understanding of location, size and scale of sand waves and ripples within the Marine Cable Corridor. As part of the Cable Burial Risk Assessment ('CBRA') process a stable seabed level was assessed, below which sediment mobility is not anticipated. This identifies the level, in regions of mobile sediment, below which the cable would be buried, and above which any large ripples</p>

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>or sand waves would be cleared to enable the burial process. Realistic volumes are presented however, based on the uncertainties arising from the stable seabed level assessment, uncertainty levels of an additional 1 m depth in UK waters were determined for worst case volumes.</p> <p>The model was parameterised using site specific sedimentological data derived from vibrocore sediment samples collected during the AQUIND geotechnical field campaign. For the purposes of model parameterisation, the mean value of each of the three grain size classes derived from samples collected directly from the features to be dredged, was utilised.</p> <p>Due to the conservative assumptions applied it is considered that the data, and approach adopted, remains valid.</p>

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Bathymetric data	European Marine Observation and Data Network (EMODnet) augmented with Oceanwise raster charts.	HD and wave model setup	EMODnet and Oceanwise charts are routinely updated (typically on a bi-annual basis).	The primary source of bathymetry data used in the hydrodynamic and wave models originated from EMODnet (2018). These data provide the best regional scale information on water depths around the United Kingdom ('UK'). Though this data is of sufficient resolution to support numerical modelling efforts (i.e. with a resolution of 1 arc second, or approximately 30 m), and thus physical features such as trenches, ridges, sand banks and sandwaves were well represented, the dataset is not of sufficient resolution to determine macro-scale changes to such features. Consequently, as broader scale bathymetric patterns within the English Channel are not anticipated to change significantly, there is a high level of confidence that updating the bathymetry within the HD and wave model would have no discernible effect on model predictions in regard to the

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				assessment of the hydrodynamic, wave and sediment transport regimes. Accordingly, the data used remains valid for assessment purposes and the assessment of impacts also remains valid.
Nearshore bathymetric data	Global Self-consistent, Hierarchical, High-resolution Geography ('GSHHG') Database	HD and wave model setup	None.	The coastline was discretised using the GSHHG Database. The GSHHG is a high-resolution geography data set, amalgamated from two databases in the public domain: World Vector Shorelines (WVS, 2018) and CIA World Data Bank II (WDBII, 2018). The coastline around the Solent in the UK, and surrounding Dieppe, was further refined using Google Earth to trace around satellite imagery of the area. At a broad regional scale, the location and shape of the coastline, has not changed significantly in the time since submission of the assessment, and consequently the GSHHG database, as a high-resolution geography data set, remains valid.

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Atmospheric Data	Climate Forecast System Reanalysis ('CFSR')	HD model setup	Updates to dataset	The boundary conditions for the HD model remain sufficient for purpose. The model has demonstrated good model skill during the validation exercise and thus produced a hindcast dataset suitable to inform the determination of baseline conditions and predictions of sediment transport during proposed operations.
Atmospheric Data	National Centres for Environmental Prediction ('NCEP')	HD model setup	Updates to dataset.	As above.
Ocean tides	Oregon State University TPXO 7.2 Atlantic Ocean model	HD model setup	Updates to dataset.	As above.
Meteorological forecasting	European Centre for Medium-Range Weather Forecasts ('ECMWF')	Data provided boundary conditions for the SWAN model	Updates to dataset.	The boundary conditions for the SWAN (wave) model remain sufficient for purpose. The model has demonstrated good model skill during the validation exercise and thus produced a hindcast dataset suitable to inform the determination of baseline conditions and

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				predictions of sediment transport during proposed operations.
Water Levels (Portsmouth harbour, Newhaven and Dieppe)	National Tidal Sea Level Facility ('NTSLF') and Service hydrographique et océanographique de la marine ('SHOM')	HD model validation/calibration	Updates to the dataset	Historic data across the period 2013 to 2014 were acquired from the NTSLF and SHOM. The model has demonstrated good model skill during the validation exercise and thus produced a hindcast dataset suitable to inform the determination of baseline conditions and predictions of sediment transport during proposed operations. No updates to model validation are required and the model remains valid for assessment purposes.
Measured wave data (Sandown Pier wave radar and wave buoys positioned at Hayling Island, Bracklesham and Rustington)	Channel Coastal Observatory ('CCO')	Wave model calibration / validation	None.	Historic data across the period 2003 to 2015 were acquired from the CCO. The model has demonstrated good model skill during the validation exercise and thus produced a hindcast dataset suitable to inform the determination of baseline conditions and predictions of sediment transport during proposed operations. No

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				updates to model validation are required and the model remains valid for assessment purposes.
Measured tidal flow data (offshore Isle of Wight)	British Oceanographic Data Centre (BODC)	HD Model calibration / validation	None.	Historic data acquired in 1983 from the BODC. The model has demonstrated good model skill during the validation exercise and thus produced a hindcast dataset suitable to inform the determination of baseline conditions and predictions of sediment transport during proposed operations. No updates to model validation are required and the model remains valid for assessment purposes.
Surface and sub-surface sedimentology and geology	British Geological Survey ('BGS')	Determination of baseline conditions	None.	No significant updates given short period of time that has elapsed. Data / information remains valid.
Metocean and sedimentological data/information	IFA-2 Routeing and Siting Feasibility Desktop Study	Determination of baseline conditions	None.	Relevant historic studies. Data / information remains valid.

Chapter 6: Physical Processes Data/Information	Source presented in 2019 ES	Data Use	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	IFA-2 Marine Cable Route Desktop Study France – England Connection, Channel			
Various academic studies	Hamblin <i>et al.</i> , 1992; Tappin <i>et al.</i> , 2007; James <i>et al.</i> , 2007; James <i>et al.</i> , 2010; Paphitis <i>et al.</i> , 2010	Determination of baseline conditions	None.	Relevant historic studies. Data / information remains valid.

Chapter 7 Marine Water and Sediment Quality

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Natural Power Consultants Ltd	Benthic and intertidal survey (Appendix 8.1 (Benthic Ecology Survey Report)) (2019)	Site specific benthic and intertidal surveys.	No more recent data available.	<p>There is a high level of confidence that the benthic data which informed the assessment remains valid. It is considered unlikely that there will be changes in broad sedimentary regime, and as such, no update to this data required.</p> <p>Pre-construction surveys will serve to mitigate any risk to the environment in regard to sensitive habitats through undertaking these surveys alongside providing an updated baseline to inform the construction methodologies and final design.</p> <p>As such, no change to the conclusions reached in Chapter 7 of the existing ES is expected.</p> <p>In regard to the intertidal data, there is no change to the design of the project and there is a high level of confidence that there is no reason for this data to be considered invalid for assessment purposes. There are no environmental</p>

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>sensitivities identified in this area and no mitigation was necessary as the design avoids impacts to intertidal habitats.</p> <p>As such, no change to the conclusions reached in Chapter 7 of the existing ES which remain valid.</p>
Natural Power Consultants Ltd	Contaminated sediment survey results (Appendix 7.3 (Contaminated Sediments Survey Report)) (2019)	Site specific contaminated sediment sample collection and analysis.	No more recent data available.	<p>The contaminated sediment survey informed the Chapter 7 assessment of effects arising from release of contaminated sediments which concluded, based on that survey data and the other data gathered from IFA2 and Rampion 1, that effects would be not significant. However, during examination, extensive consultation was undertaken with the MMO on the time period over which the contaminated sediments samples collected for the Proposed Development would be considered valid. The MMO's concerns were focussed on the dredging activity to be undertaken at the HDD exit pit in the very nearshore area off Eastney. The</p>

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>final positions of the Applicant and the MMO are recorded in the 7.5.16 Statement of Common Ground (SoCG Rev 006) submitted at Deadline 8. Table 4.1 within the SoCG provides the details of matters where agreement is not reached between the MMO and AQUIND. In the SoCG, a licence condition has been proposed by the MMO stating that if HDD dredging works do not commence prior to 01 February 2023 then a sediment sampling plan should be submitted to the MMO to determine whether new sediment sampling and analysis should be undertaken. In principle, this licence condition is acceptable to the Applicant. AQUIND will be required to submit a sediment sampling plan to the MMO and where they confirm that sediment sampling and analysis is required, sampling and analysis must be undertaken 6 months prior to commencement of dredging activities and that this will be secured within the DML. Given that the assessment within Chapter 7 concluded effects would be</p>

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				not significant in regard to release of contaminated sediments (the same conclusion made by Rampion 2 in their 2021 PEIR Chapter 9) and that this licence condition will be secured DML, then it can be concluded with a high level of confidence that the conclusions made within Chapter 7 for the Proposed Development remain valid.
Partrac Ltd	Coastal Processes Modelling (Appendix 6.2 (Modelling Technical Report)) (2019)	Detail of baseline environment and outline of approach to assessment including brief narrative of sediment plume modelling.	No more recent data available.	The ES data review for Chapter 6 has not identified any datasets that have been updated since 2019 that would change the conclusions made in regard to physical processes and there is a high level of confidence that the assessment remains valid. As such, the conclusions reached in Chapter 7 for the Proposed Development remain valid.
National Grid	IFA2 ES (IFA2, 2016)	Coastal Processes chapter including water quality of the ES for IFA2, a nearby	No more recent data available.	The IFA2 Environmental Statement was published in 2016 and the commissioning of the IFA2 Interconnector concluded January 2021. There is a high level of

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		interconnector project.		confidence that the conclusions reached in Chapter 7 remain the same.
Rampion OWF	Rampion ES (E.ON, 2012).	Coastal Processes Appendix including water quality of the ES for Rampion OWF; an OWF located 13 km off the coast of Sussex, to the east of the Marine Cable Corridor.	Rampion 1 post construction survey between Autumn 2019 and Spring 2020. Rampion 2 – PEIR Chapter 9 Benthic subtidal and intertidal ecology, reports that the site-specific benthic ecology data was not analysed in time to be included in PEIR so no new data available from Rampion 2 PEIR benthic ecology chapter.	The Rampion Environmental Statement was published in 2012 and construction was completed in 2018. The Rampion 1 post construction survey found the benthic habitats to consist of sand and coarse sediment. These findings accord with the baseline data and reporting in Chapter 8 of the ES. No additional data was collected in this survey in regard to contaminated sediments. As such the conclusions reached in Chapter 7 for the Proposed Development remain the same.
Defra	Magic Map Application (Defra, 2019)	Online mapping resource providing layers of habitat types and features within the study area.	No recent data available.	This website was used to inform WFD sensitive habitats baseline and the datasets employed for each highly sensitive habitat to inform the interactive map are from 2018 or earlier. As such, the conclusions reached in Chapter 7 remain the same.

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Environment Agency	Environment Agency Data Catchment Explorer (Environment Agency 2019)	Information relating to water bodies monitored under the remit of the WFD.	<p>No update to the Environment Agency's Clearing the waters for all 2017 guidance.</p> <p>There has been an August 2022 update to the Classification which details the results from 2019 River Basin Management Plan: maps [REDACTED]</p>	<p>The waterbody status has not changed in the 2022 update for those water bodies included in the assessment. This update (Cycle 3) is based on data collected in 2019 which was not available for inclusion in the EIA. The data summarised below is the most recent available on the Catchment Explorer, as provided by the Environment Agency. It should be noted that additional sampling in 2020 and 2021 was likely impacted by working restrictions imposed during COVID-19 lockdowns across the UK, and 2022 data is currently not available.</p> <ul style="list-style-type: none"> • Isle of Wight East waterbody remains at good status in 2019. • Solent waterbody remains moderate in overall status for 2019. • Langstone Harbour waterbody remains moderate overall status for 2019. Portsmouth Harbour

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>waterbody remains moderate overall status for 2019</p> <p>As such, the overall status of water bodies assessed has not changed, however the Chemical Status has deteriorated from Good to Fail for the Solent, Langstone Harbour and Portsmouth Harbour water bodies, each due to exceedances in Polybrominated Diphenyl Ethers (PBDEs) and Mercury and its compounds. The cause for this is due to a change in the assessment methodology of chemical status and, as a result, 2019 chemical results are “not comparable to previous years’ assessments”, as explained on the Environment Agency’s Catchment Explorer. There are four groups of global pollutants (uPBTs) causing these status changes which include PBDEs and Mercury. When these uPBTs are excluded the chemical status assessment is comparable to previous years assessments.</p>

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>It is therefore considered that the changes in status are as a result of a change in the Environment Agency's assessment methodology in assigning chemical status to water bodies rather than a change to the baseline. The potential for disturbance of contaminants was assessed (short-duration and localised, and not expected to result in any deterioration of the WFD water body). The conclusions of this assessment are still valid in light of the status change. Therefore, there is a high level of confidence that the conclusions reached in Chapter 7 and Appendix 7.1 Water Framework Directive Assessment remain the same.</p>
OSPAR	OSPAR Intermediate Report (OSPAR, 2017a)	Multinational assessment and monitoring effort in the OSPAR Maritime Area. The Channel lies in the Greater North Sea	No recent data available.	The report was published in 2017 and was included in the assessment. There have been no updates to this data. As such, the conclusions reached in Chapter 7 remain the same.

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		OSPAR Geographic Region (Region II).		
Defra and EA	South East RBMP	Status and management objectives for the South East South East Transitional and Coastal ('TraC') (EA, 2009; 2015).	South East river basin district river basin management plan: updated 2022 - GOV.UK (www.gov.uk)	The South East RBMP has been updated in 2022, and includes an update to the programme of measures, however these are either not relevant to cable installation activities or have already been accounted for in the project design. Therefore, the conclusions reached in Chapter 7 and Appendix 7.1 Water Framework Directive Assessment remain the same.
NE	Database	Designated Sites Database (NE, 2019)	This website is regularly updated.	These data were employed to identify the protected areas within each waterbody. As no new protected sites have been identified within the water bodies, the conclusions reached in Chapter 7 and Appendix 7.1 remain the same.

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
EA	Database	Bathing water quality profiles for each bathing water area (EA, 2019b).	This database is regularly updated.	<p>Bathing waters assessed within the Zone of Influence (ZOI) remain the same:</p> <ul style="list-style-type: none"> • All bathing waters within the Isle of Wight East are outside the ZOI. • Solent: The Eastney bathing water is within 2 km of marine activities. Additionally, the following bathing waters are within the ZOI: Southsea East, Beachlands West, Beachlands Central, and Eastoke • Langstone and Portsmouth Harbours contain no designated bathing waters. <p>A summary of bathing water quality since 2018 are as follows:</p> <ul style="list-style-type: none"> • Eastney, Beachlands West, Beachlands Central and Eastoke remained at excellent (2018-2022)

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<ul style="list-style-type: none"> Southsea East dropped from excellent in 2018, 2019 to good in 2021 and sufficient in 2022. <p>The assessment concluded bathing waters will not be impacted by the works, irrespective of their status, and that there would be no change in bathing water quality as a result of the works, Changes in the status of bathing waters can be expected from year to year and does not change this conclusion.</p> <p>Given these updates, there is a high level of confidence that the conclusions reached in Chapter 7 and Appendix 7.1 Water Framework Directive Assessment remain the same.</p>
Cefas	Website	Designated bivalve mollusc production areas in England and	Annual sampling programmes are undertaken. See: [REDACTED] [REDACTED]	Shellfish waters assessed within the Zone of Influence (ZOI) remain the same:

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>expected from year to year and this does not change this conclusion.</p> <p>There is a high level of confidence that the conclusions reached in Chapter 7 and Appendix 7.1 Water Framework Directive Assessment remain the same.</p>
Food Standards Agency	Website	Shellfish controls information (Food Standards Agency, 2019a).	Annual sampling programmes are undertaken.	<p>Shellfish waters assessed within the Zone of Influence (ZOI) remain the same:</p> <ul style="list-style-type: none"> • The Isle of Wight East does not contain any shellfish waters. • Shellfish waters within the Solent are not within 2 km of activities, but are within the ZOI: Spithead and Stokes Bay (UKSW48); and Ryde (UKSW47). These sites are subject to a partial closure (unclassified) as they were in 2019, with some parts still classified as B, therefore no change in classification since 2019.

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<ul style="list-style-type: none"> Langstone Harbour Shellfish Waters (UKSW33) is within the ZOI. Classification has been updated as follows: <i>M. mercenaria</i> from B to B-LT, <i>O. edulis</i> and <i>C. gigas</i> from C to B. <p>The assessment concluded shellfish waters are not impacted by the works, and that there would no change in shellfish water classification as a result of the works. Changes in the classification of shellfish waters can be expected from year to year and this does not change this conclusion.</p> <p>There is a high level of confidence that the conclusions reached in Chapter 7 and Appendix 7.1 Water Framework Directive Assessment remain the same.</p>
Joint Nature Conservation Committee ('JNCC')	Website	Natura 2000 designated site descriptions (JNCC, 2018).	This data is regularly updated.	These data were employed to identify the protected areas within each waterbody. As no new protected sites have been identified within the water bodies, the conclusions reached in

Chapter 7 Marine Water and Sediment Quality Data/Organisation	Data type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				Chapter 7 and Appendix 7.1 remain the same.

Chapter 8 Intertidal and Benthic Habitats

Chapter 8 Intertidal and Benthic Habitats Data/information	Data Type	Details of Data available	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Project specific benthic surveys (2017-2018)	Grab, Drop Down Video ('DDV'), fauna, Particle Size Analysis ('PSA'), Total Organic Carbon ('TOC') and biomass	Epifauna broad-scale habitats, infauna community and sediment composition. Results of these surveys are presented in Appendix 8.1 (Benthic Ecology Survey Report)	No recent data available.	<p>There is a high level of confidence that the benthic data which informed the assessment remains valid. No changes in broad sedimentary regime are anticipated, and as such, no update to this data is required.</p> <p>Pre-construction surveys will serve to mitigate any risk to the environment in regard to sensitive habitats through undertaking these surveys alongside providing an updated baseline to inform the construction methodologies and final design.</p> <p>As such, no change to the conclusions reached in Chapter 8 of the ES.</p>
Project specific intertidal surveys (2017)	Sediment samples (fauna, PSA and biomass) and intertidal walk over	Extent and distribution of intertidal habitats and sediment composition	No recent data available.	<p>In regard to the intertidal data, there is no change to the design of the project and there is a high level of confidence the data remains representative.</p> <p>There are no environmental sensitivities identified in this area and no mitigation was necessary as the design avoids impacts to intertidal habitats.</p> <p>As such, no change to the conclusions reached in Chapter 8 of the ES.</p>

Chapter 8 Intertidal and Benthic Habitats Data/information	Data Type	Details of Data available	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
IFA2 ES (Benthic Ecology Chapter)	Survey data	Benthic habitats for the south of the central Channel	No recent data available.	The conclusions reached in Chapter 8 remain the same.
Rampion Offshore Wind Farm ES (Benthic Ecology Chapter)	Survey data	Benthic habitats for the south of the central Channel	Rampion 1 post construction survey between Autumn 2019 and Spring 2020. Rampion 2 – PEIR Chapter 9 Benthic subtidal and intertidal ecology, reports that the site-specific benthic ecology data was not analysed in time to be included in PEIR so no new data available from Rampion 2 PEIR benthic ecology chapter.	Rampion 1 lies c. 50 km east of the Project. Rampion 1 post construction survey found the benthic habitats to consist of sand and coarse sediment. These findings accord with the baseline data and reporting in Chapter 8 of the ES. As such, the conclusions reached in Chapter 8 remain the same.
CHARM II project study (Martin <i>et al.</i>, 2007)	Benthic habitat maps	Status of benthic invertebrate fauna in the Eastern Channel	A Multidisciplinary Approach for A Better Knowledge of the Benthic Habitat and Community Distribution in the Central and Western	This study expanded on the previous work of the CHARM II project study used in the Chapter 8. It found two main habitats corresponded to an eastern/western gradient from sandy gravel to sandy gravel and pebbles sediment. These habitats are EUNIS

Chapter 8 Intertidal and Benthic Habitats Data/information	Data Type	Details of Data available	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
			English Channel (2022) ² .	MC211 (<i>Pomatoceros triqueter</i> with barnacles and bryozoan crusts on Atlantic circalittoral unstable cobbles and pebbles) and MC3212 (<i>Mediomastus fragilis</i> , <i>Lumbrineris</i> spp. and venerid bivalves in Atlantic circalittoral coarse sand or gravel). These findings are consistent with the results of the previous CHARM II study that informed the baseline for Chapter 8. As such the conclusions reached in Chapter 8 remain the same.
South Coast Dredging Association	Abundance data	Distribution of benthic infauna across the South Coast Regional Environmental Characterisation ('REC') Region (EMU Ltd., 2012)	No recent data available.	The conclusions reached in Chapter 8 remain the same.
JNCC	Literature review	Review of coasts and seas in southern England	No recent data available.	There have been no updates to this data source, or more recent literature reviews of this nature since 2019. As such, the conclusions reached in Chapter 8 remain the same.
MALSF (James <i>et al.</i>, 2010)	Grab, Fauna, PSA, Biotopes	Epibenthic and infauna biotopes in the south coast and	No recent data available.	There have been no updates to this data source, or more recent data sources of this nature since 2019. As such, the

Chapter 8 Intertidal and Benthic Habitats Data/information	Data Type	Details of Data available	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		central and eastern regions of the UK		conclusions reached in Chapter 8 remain the same.
NE (2018)	Designated sites information	Advice on the Conservation Objectives for European Sites	This website ³ is regularly updated.	These data provide background on the qualifying features of designated sites which remain valid as they have not changed. As such, the conclusions reached in Chapter 8 remain the same.
EMODnet (2016)	Benthic habitat data	Broad-scale seabed habitat map for Europe	EMODnet – EUSeamap (2021)) Broad-scale seabed habitat map ⁴ and Substrate type ⁵ .	The EUSeamap (2021) Broad-scale seabed habitat map shows no material change to the 2016 data employed within Chapter 8 assessment. This is also true of the EUSeamap (2021) substrate sediment type data which classifies the sediment in the same way as in the EMODnet (2016) data employed within Chapter 8 assessment. As such, the conclusions reached in Chapter 8 remain the same.
EUNIS, European Environment Agency (2018)	Protected sites information	Information on protected sites and their features of conservation interest	This website ⁶ is regularly updated	These data provide information on species, habitat types and protected sites across Europe which remain valid as they have not changed. As such, the conclusions reached in Chapter 8 remain the same.
Channel Coastal Observatory (2016)	Intertidal data	Aerial imagery of the UK Landfall	No recent data available.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 8 remain the same.

Chapter 8 Intertidal and Benthic Habitats Data/information	Data Type	Details of Data available	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Magic Map Application (2018)	Designated sites information	Location of designated sites	No recent data available.	This website was used to inform WFD sensitive habitats baseline and the datasets employed for each highly sensitive habitat to inform the interactive map have not been updated. As such, the conclusions reached in Chapter 8 remain the same.
Dolphin Head pilot Highly Protected Marine Area (pHPMA)	Protected sites information		DEFRA consultation on Highly Protected Marine Areas ⁸ .	<p>This pilot HMPA is anticipated to be fully designated by July 2023. The features of which are the same as that of the Offshore Brighton Marine Conservation Zone (MCZ) with which the pilot HPMA significantly overlaps. The features are:</p> <ul style="list-style-type: none"> • High energy circalittoral rock; • Sublittoral coarse sediment; and • Sublittoral mixed sediment. <p>Dolphin Head pilot HPMA, lies c.24 km from the cable corridor at its closest point, and as such lies just within the Zone of Influence for potential increased Suspended Sediment Concentrations. The MCZ Assessment (presented in Appendix 8.5) for Offshore Brighton MCZ (which lies c.8.5 km from the cable corridor at its closest point) concluded that there would be no significant effect on the features or any supporting</p>

Chapter 8 Intertidal and Benthic Habitats Data/information	Data Type	Details of Data available	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>ecological or geomorphological processes on which the conservation of any protected feature of an MCZ is (wholly or in part) dependent. As such, there is a high level of confidence that the conclusions reached in an assessment of the pilot Dolphin Head HPMA would be the same as those reached in the MCZ assessment presented in Appendix 8.5 of the ES.</p>

Chapter 9 Fish and Shellfish

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
MMO	Commercial fisheries landings data by ICES rectangle	<p>2013 – 2017 UK landings data for UK ports for ICES rectangles 28F0, 29E9, 29F0, 30E8, 30E9 and 28F1 (MMO, 2019).</p> <p>2012 – 2016 Foreign landings data for UK ports for ICES rectangles 29E9, 29F0 and 30E9.</p> <p>2014 – 2016 Foreign landings data for UK ports for ICES rectangle 28F0.</p> <p>2018 data was not available at the time of writing the ES chapter.</p>	<p>2016 – 2020 Aggregated UK fleet landings by ICES rectangle time series (MMO, 2021).</p> <p>2016 – 2020 UK and foreign landings by port (MMO, 2021).</p> <p>2016 – 2020 UK fleet landings by rectangle stock and estimated EEZ (MMO, 2021).</p>	<p>There is a high level of confidence that the conclusions to Chapter 9 remain valid. The fisheries remain the same, with the same target species. Some reduction in effort will have occurred due to COVID, but this is not of relevance to fish ecology which uses this data to identify receptors (i.e. species present).</p>
ICES	Commercial fisheries landings data by ICES Area	<p>2011 – 2015 ICES landings data for all ports from member countries (Belgium, Denmark, France, Germany, Ireland, Lithuania, Netherlands, Poland, Spain and UK) that fished in ICES Area VII.7.d. (ICES, 2018a).</p>	<p>2013-2017 ICES data (aggregated data from Belgium, Denmark, France, Germany, Ireland, The Netherlands,</p>	<p>There is a high level of confidence that the conclusions to Chapter 9 remain valid. The fisheries remain the same, with the same target species. Some reduction in effort will have occurred due to COVID, but this is not of</p>

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
			Norway, Sweden and UK).	relevance to fish ecology which uses this data to identify receptors (i.e. species present). In addition, data is not broken down by country, and as such it would not be possible to employ this data to form new baseline information on different country fleets.
ICES	Survey data	Long term monitoring of commercial demersal and pelagic fish for stock assessments, changes in distribution and abundance.	Latest report published 2022	There is a high level of confidence that the conclusions to Chapter 9 remain valid. The fisheries remain the same, with the same target species. Some reduction in effort will have occurred due to COVID, but this is not of relevance to fish ecology which uses this data to identify receptors (i.e. species present).
Coull <i>et al.</i> (1998)	Report	Fisheries sensitivity maps in British waters (Coull <i>et al.</i> , 1998).	Ellis <i>et al.</i> , 2012 (already considered in assessment)	These data are still considered to be a relevant data source for fish spawning and nursery areas.

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Ellis <i>et al.</i> (2012)	Report	Spawning and nursery grounds of selected fish species in UK waters (Ellis <i>et al.</i> , 2012).	No recent data available.	These data are still considered to be a relevant data source for fish spawning and nursery areas.
AQUIND benthic surveys	Project specific benthic surveys	Site specific benthic surveys were undertaken along the entire length of the Marine Cable Corridor. Consisting of 42 benthic grabs between the UK and France (July 2017 – March 2018), drop down video surveys and 10 contaminated sediment samples within the UK (see Appendix 8.1 (Benthic Ecology Survey Report) and Appendix 7.3 (Contaminated Sediment Survey Report) of the ES Volume 3 (document reference 6.3.7.3)).	No recent data available.	These data were used to inform sediment suitability for use by certain fish species. Broad sedimentary regime changes are not expected, and as such, no update to this data is required and it remains valid.
Rampion Offshore Wind Farm ('OWF')	Project specific Fish surveys	Site specific fish survey for the EIA, were undertaken in 2011 – 2012 which included: demersal otter trawling scientific 2 m beam trawls; commercial beam trawls (RSK, 2012). In addition, assessment of the spawning condition of black seabream by assessing commercially landed fish caught in the Rampion offshore array area in 2012	No recent data available (surveys were undertaken by Rampion in 2017 and 2020. These are not publicly available, however data is summarised in the	These data provide contextual background which remain valid. The Rampion extension has not undertaken or proposed any fish or shellfish surveys in the development of that project's own baseline, though considering the summary of data relating to Rampion 1 pre and post construction survey findings, there can

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		and 2013 (RSK, 2016); as well as a desk-based study on black seabream in the English Channel off the Sussex Coast (EMU, 2012).	Rampion Extension PIER report).	be high confidence that the conclusions of Chapter 9 for the Proposed Development remain valid.
Navitus Bay Wind Farm	Project specific fish surveys	Site specific fish surveys were conducted, which included fixed large mesh trammel and finer mesh gill nets to target electro-sensitive elasmobranch and other demersal fish and shellfish species (Navitus Bay Development Ltd, 2014).	No recent data available.	These data provide contextual background which remain valid.
IFA2 High-Voltage, Direct Current ('HDVC') Interconnector	Project specific benthic surveys	Grab and drop-down video ('DDV') surveys conducted to characterise the benthic communities along the cable route (IFA2, 2016).	No recent data available.	There is a high level of confidence that the conclusions reached in Chapter 9 remain valid.
EA	Transitional and coastal waters ('TraC') Fish Monitoring Programme	2011 – 2016 Fish counts for all species for all areas and all years – takes into account migratory species that may occur near the Proposed Development at various times of the year (Environment Agency, 2018).	2017 – 2021 Fish counts for all species for all areas and all years (Environment Agency, 2021).	There is a high level of confidence that the conclusions reached in Chapter 9 remain valid as there are no changes in relative abundances of migratory species in this updated data.

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Cefas	The Cefas Young Fish Survey	A 30-year demersal fisheries study (from 1981 to 1997) using fine mesh beam trawl gear covering the inshore ICES rectangles 30E8 and 30E9 (Rogers <i>et al.</i> , 1998).	No recent data available.	These data provide contextual background which remain valid.
Cefas	Solent Bass Pre-recruit Survey	Long term survey initiated in 1970's assessing the abundance of two – four-year-old bass species and density of other incidental catch in the inshore ICES rectangles 30E8 and 30E9 (Cefas, 2016).	No recent data available.	These data provide contextual background which remain valid.
Cefas	The Fish Atlas of the Celtic Sea, North Sea and Baltic Sea	This atlas presents the current data of all Western European species in the period 1977 to 2013 with particular focus on commercially interesting species (Heessen <i>et al.</i> , 2015).	No recent data available.	These data provide contextual background which remain valid.
Cefas/ICES	International Herring Larvae Survey (IHLS)	The IHLS (1967-2017) provide quantitative estimates of herring larval abundance. Data is available from 1972. It covers ICES rectangles 28F0, 29E9, 29F0, 30E8, 30E9 and 28F1. It	Data available up to 2022 only for ICES rectangles 28F0, 29E9, 29F0, and 30E8.	An extensive time period was considered in the assessment. Despite the conclusion of the assessment (no significant impact on spawning herring, Section 9.6 in Chapter 9 Fish and Shellfish), mitigation has been applied

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		is shown not to be an area of high density (ICES, 2018b).	No data are available from 2017 onwards for the ICES rectangles 30E8 and 28F1.	in the areas set out in the Marine Plan that were considered to represent those of greatest importance to herring and this is secured within Schedule 15, Part 2, Condition 14 of the Deemed Marine Licence. Given the precautionary mitigation in place, there is a high level of confidence that the conclusions in Chapter 9 remain valid, and that impacts on herring will not be significant.
MMO	Report	East English Channel Herring Spawning Assessment (RPS, 2013) for the East Channel Association.	No recent data available.	These data provide contextual background which remain valid.
Southern IFCA	Fish and shellfish studies within this region	Solent Oyster Fishery stock survey report (Southern IFCA, 2018a), Native oyster stock assessment (Southern IFCA, 2017a), Solent bivalve stock assessment (Southern IFCA, 2017b), Black seabream status report (Southern IFCA, 2014), fish monitoring (Southern IFCA, 2017c), Solent Oyster Management Plan (Southern IFCA 2017d), Solent Manila Clam	Solent Oyster Survey (Southern IFCA, 2021), Solent Bivalve Stock Survey (Southern IFCA, 2019).	Solent Oyster Survey (Southern IFCA, 2021) – this time series data indicates limited change in the baseline (i.e. low catch per unit effort generally over the area sampled). The assessments presented in Chapter 9 were not contingent on detailed abundances of species in the study area, but considered that oysters may be present as a worst case. As such,

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		Management Plan (Southern IFCA, 2018b) and black seabream sidescan sonar surveys (Cooper, P. <i>pers. comms.</i> , 2018).		<p>there is a high level of confidence that the conclusions to Chapter 9 remain valid.</p> <p>Solent Bivalve Stock Survey (Southern IFCA, 2019) – Report considers fishery resource in the area, and the variation in levels of abundance of each bivalve are not relevant to the assessment conclusions which considered that bivalves, of all relevant species, may be present in the area and were thus suitably assessed. All species have been adequately considered in the assessment presented in Chapter 9, and as such, there is a high level of confidence that the conclusions remain valid.</p>
Sussex IFCA	Fish and shellfish studies within this region	Side scan sonar surveys of seabream nests (2014) (Fugro EMU, 2015), Anglers activity - recording of recreational caught seabream within the Kingmere MCZ, annual small fish surveys (Sussex IFCA, 2017a), native oyster stock assessment in Chichester Harbour (Sussex IFCA, 2017b), native oyster fishery valuation assessment in	No recent data available.	These data provide contextual background which remain valid.

Chapter 9 Fish and Shellfish Organisation	Data Type	Details of data available and data limitations	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		Chichester Harbour (Williams <i>et al.</i> , 2018; Williams & Davis, 2018).		
Hanson Aggregates Marine Ltd ('HAML')	Black seabream nest area survey on in West Sussex	Multibeam and sidescan sonar and DDV surveys of six black seabream nest areas 12 km south of Littlehampton and Bognor Regis (EMU, 2011).	No recent data available.	These data provide contextual background which remain valid.
Natural Power	Particle Size Distribution (PSD) data	PSD data from benthic samples taken during the benthic surveys of the Marine Cable Corridor (Chapter 8 (Benthic and Intertidal Habitats) of the ES Volume 1 (document reference 6.1.8))	No recent data available.	These data were used to inform sediment suitability for use by certain fish species. No changes in broad sedimentary regime are expected, and as such, no update to this data required and it remains valid.
British Geological Society (BGS) data	Geographical Information System ('GIS') data layer on the makeup of the seabed	Marine sediments 250k digital map showing the distribution of seabed sediment types in the UK area. Seabed sediments were mapped further offshore, where the most recent deposits commonly form a veneer or superficial layer of unconsolidated material on the seabed. Their distribution and composition is determined using a range of remotely sensed and physical ground-truthing data.	No recent data available.	These data provide contextual background which remain valid.

Chapter 10 Marine Mammals and Basking Sharks

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
IAMMWG (2015)	Abundance estimates (derived from the SCANS-II and Cetacean Offshore Distribution and Abundance in the European Atlantic ('CODA') surveys (which were conducted in 2005 and 2007 respectively) for the MUs for the seven most common cetacean species in UK waters – harbour porpoise, common dolphin, bottlenose dolphin, white-beaked dolphin, white-sided dolphin, Risso's dolphin, minke whale.	<p>IAMMWG. (2022). Updated abundance estimates for cetacean Management Units in UK waters. JNCC Report No. 680 (Revised March 2022), JNCC Peterborough, ISSN 0963-8091.</p> <p>New reference population abundance estimates are as follows:</p> <p>Harbour porpoise (<i>Phocoena phocoena</i>) 346,601 (was 227,298); and</p> <p>Minke whale (<i>Balaenoptera acutorostrata</i>) 20,118 (was 23,528).</p>	<p>Disturbance in response to:</p> <p>Increased anthropogenic noise from geophysical survey and positioning equipment which emits sound.</p> <p>Slight decrease in potential for impact for harbour porpoise (from 0.007% to 0.005% of the reference population estimated to have the potential to be impacted).</p> <p>Slight increase in potential for impact for minke whale (from 0.0007% to 0.0009% of the reference population estimated to have the potential to be impacted).</p> <p>Were the assessment to be undertaken using the more recent data, there is a high level of confidence that the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
			<p>Associated HDD work: Increased anthropogenic noise from potential vibro-hammering at the marine HDD location (KP 1.0 – KP 1.6).</p> <p>Slight decrease in potential for impact for harbour porpoise (from 0.0003% to 0.0002% of the reference population estimated to have the potential to be impacted).</p> <p>Slight increase in potential for impact for minke whale (from 0.00003% to 0.00004% of the reference population estimated to have the potential to be impacted).</p> <p>Were the assessment to be undertaken using the more recent data, there is a high level of confidence given the negligible changes that the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>
Hammond <i>et al.</i> (2017)	Density and abundance estimates from the SCANS-	Hammond <i>et al.</i> (2021). Estimates of cetacean	Disturbance in response to:

<p>Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES</p>	<p>Details of Data</p>	<p>More Recent Data (if available)</p>	<p>Notes on Data Validity used for the ES and impact of using more recent data</p>
	<p>III surveys which were conducted in 2016 – data for Block C are relevant to the Proposed Development as the Marine Cable Corridor is located within it. Estimates are available for harbour porpoise and minke whale.</p>	<p>abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys.</p> <p>Report on the 2016 SCANS-III surveys revised due to errors in original analysis.</p> <p>New density estimates (animals per km²) are as follows:</p> <p>Harbour porpoise 0.213 (was 0.213 – therefore no change); and</p> <p>Minke whale 0.0023 (was 0.002 – change considered to be due to rounding).</p>	<p>Increased anthropogenic noise from geophysical survey and positioning equipment which emits sound.</p> <p>No change for harbour porpoise (17 individuals estimated to have the potential to be impacted).</p> <p>No change for minke whale (<1 individual estimated to have the potential to be impacted).</p> <p>There is no change, and accordingly the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p> <p>Associated HDD work: Increased anthropogenic noise from potential vibro-hammering at the marine HDD location (KP 1.0 – KP 1.6).</p> <p>No change for harbour porpoise (1 individual estimated to have the potential to be impacted).</p>

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
			<p>No change for minke whale (<1 individual estimated to have the potential to be impacted).</p> <p>There is no change, and accordingly the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>
<p>Pettex <i>et al.</i> (2014)</p>	<p>Distribution of the pelagic megafauna in French Metropolitan waters (The Suivi Aérien de la Mégafaune Marine ('SAMM'), (Aerial Monitoring of Marine Megafauna)) gathered through aerial and ship based surveys for all cetacean species encountered.</p>	<p>Laran <i>et al.</i> (2022). Distribution et abondance de la mégafaune marine en France métropolitaine. Rapport final de la campagne SAMM II Atlantique-Manche - Hiver 2021, de l'Observatoire Pelagis (UAR 3462, La Rochelle Université / CNRS) pour la Direction de l'Eau et de la Biodiversité et L'Office Français de la Biodiversité. 72 pp.</p> <p>The second cycle of the SAMM surveys (SAMM II) was undertaken in winter 2021 (and summer 2022 though this was in conjunction with</p>	<p>The SAMM data (Pettex <i>et al.</i>, 2014) were used to characterise the baseline fauna in the Channel.</p> <p>The more recent SAMM II data (Laran <i>et al.</i>, 2022) do not significantly alter the baseline described in Chapter 10 of the 2019 Environmental Statement.</p> <p>There is a very high level of confidence that were the assessment to be undertaken using the more recent data, the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		<p>SCANS IV) by the PELAGIS Observatory.</p> <p>Northern bottlenose whale (<i>Hyperoodon ampullatus</i>; one individual) was the only species recorded during SAMM II which was not recorded during SAMM.</p> <p>The modelled predicted densities in the Channel were broadly similar for both survey campaigns (SAMM and SAMM II) with some inter-annual variation.</p>	
McClellan <i>et al.</i> (2014)	Marine megafauna in the Channel region using geographically- and temporally-referenced marine megafauna datasets including data from the Channel Integrated Approach for Marine Resource Management ('CHARM') III project	No update to this dataset.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 10 remain the same.

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	including turtles and basking sharks.		
Evans (2006)	Main species present in the Channel and information on their wider UK/European ranges.	No update to this dataset.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 10 remain the same.
Jones <i>et al.</i> (2004)	Eastern Channel marine natural area profile.	No update to this dataset.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 10 remain the same.
Reid <i>et al.</i> (2003)	JNCC Atlas of Cetacean distribution in north-west European waters giving a snapshot of the distribution of all 28 cetacean species compiled using visual sightings data.	No update to this dataset.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 10 remain the same.
Brereton <i>et al.</i> (2016)	Analysis of photos for identification of individuals and comparison against other white-beaked dolphin	No update to this dataset.	There have been no updates to this data source since 2019. As such, the

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	catalogues around the UK and other parts of Europe.		conclusions reached in Chapter 10 remain the same.
E.ON (2012)	Marine mammal presence across the Rampion Offshore Wind Farm ('OWF') site, an adjacent reference area and a buffer compiled using data from boat-based marine mammal line transect surveys (2010–2012).	<p>Chapter 11 Marine Mammals of the Rampion 2 PEIR (E.ON, 2021).</p> <p>This document describes the site-specific digital aerial surveys (DAS) undertaken for Rampion 2 (April 2019 – March 2021). Only the April 2019 – November 2020 period is available in the PEIR. The Environmental Statement is not yet available.</p> <p>Common dolphin (<i>Delphinus delphis</i>) was the only additional species recorded on these surveys that was not recorded on the Rampion surveys (E.ON, 2012). Bottlenose dolphin (<i>Tursiops truncatus</i>), white-beaked dolphin (<i>Lagenorhynchus albirostris</i>) and unidentified dolphin were recorded on the Rampion surveys (E.ON, 2012). Harbour porpoise was the</p>	<p>The Rampion survey data (E.ON, 2012) were used to characterise the baseline fauna in the Channel.</p> <p>The more recent Rampion II survey data (E.ON, 2021) do not significantly alter the baseline described in the 2019 Environmental Statement.</p> <p>There is a high level of confidence that were the assessment to be undertaken using the more recent data, the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		most recorded species on both sets of surveys.	
Navitus Bay Development Limited (2014)	Navitus Bay OWF development area baseline marine mammal surveys using boat-based and aerial visual survey methods and Chelonia Porpoise Detector ('C-POD') acoustic surveys.	No update to this dataset is available.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 10 remain the same.
Vincent <i>et al.</i> (2017)	Grey and harbour seal count data from sites along the French coast of the Channel carried out using visual observations from land, boat and aerial surveys over haul-out sites as well as tracking using telemetry.	Cécile Vincent and her group at the University of La Rochelle continue to undertake research on the ecology of seals through various projects/funding streams and have authored several reports and publications since 2019.	<p>This and other publications were used to characterise the baseline for seal species in the Channel. Although several reports and publications have come out since 2019, the baseline has not changed fundamentally i.e., abundance in the Channel is very low in comparison to other areas around the UK.</p> <p>There is a high level of confidence that were the assessment to be undertaken using the more recent data, the conclusion would remain unchanged</p>

<p>Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES</p>	<p>Details of Data</p>	<p>More Recent Data (if available)</p>	<p>Notes on Data Validity used for the ES and impact of using more recent data</p>
			<p>i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>
<p>Chesworth <i>et al.</i> (2010)</p>	<p>Information on the Solent harbour seal population using visual counts of seals at haul-out sites, data from a public sightings scheme, photo-identification and telemetry data.</p>	<p>Castles <i>et al.</i> (2021). Increasing numbers of harbour seals and grey seals in the Solent. <i>Ecology and Evolution</i> 11: 16524–16536.</p> <p>This study uses the now 20-year dataset of seal counts from Chichester and Langstone Harbours (1999-2019) and reports:</p> <p>An increase in the mean numbers of harbour (from 5 to 31) and grey (from 0 to 12) seals using Chichester Harbour; and</p> <p>A decrease in the mean number of harbour seals (mean of 5 to 4), and a slight increase in the mean number of grey seals (from 0 to 2), using Langstone Harbour.</p> <p>Peak numbers occurred in August for both species with harbour seals</p>	<p>The Chesworth <i>et al.</i> (2014) paper was used when characterising the seal fauna in the vicinity of the Proposed Development.</p> <p>Although the more recent Castles <i>et al.</i> (2021) paper describes an approximately four-fold increase in the number of seals using the Solent, this does not significantly alter the baseline described in Chapter 10 of the 2019 Environmental Statement because the number of seals using the area remains relatively low.</p> <p>Both studies indicate that haul out sites in Chichester Harbour are used more than those in Langstone Harbour. Furthermore, the number of seals using Langstone Harbour has decreased. Therefore, the potential for disturbance of seals hauled out at sites close to the onshore HDD entry point locations (due to increased</p>

<p>Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES</p>	<p>Details of Data</p>	<p>More Recent Data (if available)</p>	<p>Notes on Data Validity used for the ES and impact of using more recent data</p>
		<p>showing another smaller peak in March.</p> <p>A total of 68 harbour and 8 grey seal individuals have been identified using photographic data collected in Chichester Harbour between 2016 and 2018.</p>	<p>anthropogenic noise from potential sheet piling) remains negligible.</p> <p>There is a high level of confidence that were the assessment to be undertaken using the more recent data, the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>
<p>Russell <i>et al.</i> (2017)</p>	<p>Sea Mammal Research Unit ('SMRU') seal count and telemetry data combined to produce total and at-sea usage maps of the UK.</p>	<p>Carter <i>et al.</i> (2022). Sympatric seals, satellite tracking and protected areas: Habitat-based distribution estimates for conservation and management. <i>Front. Mar. Sci.</i> 9:875869. doi: 10.3389/fmars.2022.875869.</p> <p>This study used satellite tracking data to build regional habitat preference models which, in addition to haul out counts, were used to predict the at-sea distribution of grey and harbour seals hauling out in the UK and Ireland.</p>	<p>The Russell <i>et al.</i> (2017) usage maps were used to describe seal distribution in the Channel. The more recent Carter <i>et al.</i> (2022) distribution maps do not significantly alter the baseline described in Chapter 10 of the 2019 Environmental Statement.</p> <p>There is a high level of confidence that were the assessment to be undertaken using the more recent data, the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>

Chapter 10 Marine Mammals and Basking Sharks Data Source from 2019 ES	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		The Carter <i>et al.</i> (2022) predicted at-sea distributions are broadly similar to the Russell <i>et al.</i> (2017) usage maps i.e., the densities of both grey and harbour seals in the Channel are comparatively low.	
Brereton <i>et al.</i> (2016a)	Use of photo-identification data to better understand the movements, population structure and abundance of bottlenose dolphins in SW England and surrounding waters	<p>Brereton <i>et al.</i> (2017). Population structure, mobility and conservation of common bottlenose dolphin off south-west England from photo-identification studies. Journal of the Marine Biological Association of the UK 98(5): 1055–1063.</p> <p>This publication contains the same data, analysis, and interpretation as the Natural England report (Brereton <i>et al.</i>, 2016a) which was used in Chapter 10 of the 2019 Environmental Statement.</p>	<p>This publication contains the same data, analysis, and interpretation as the Natural England report (Brereton <i>et al.</i>, 2016a) which was used in Chapter 10 of the 2019 Environmental Statement.</p> <p>Noting this, were the assessment to be undertaken using the more recent publication rather than the Natural England report, the conclusion would remain unchanged i.e., not significant. Therefore, the 2019 Chapter 10 conclusions remain valid.</p>

Chapter 11 Marine Ornithology

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
<p>South Coast Regional Environmental Characterisation ('REC')</p>	<p>James <i>et al.</i>, (2010) drew on a range of published information to characterise the seabird community present in the South Coast REC.</p> <p>The South Coast REC encompasses the Proposed Development.</p>	<p>Data sources included at-sea aerial surveys in the central English Channel carried out in winter (October–March) 2007/2008 and summer (May–August) 2008 (Wildfowl and Wetlands Trust (WWT), 2009).</p>	<p>This is the most current version of this document.</p>	<p>As the data have not changed, the conclusions within Chapter 11 remain valid.</p>
<p>Rampion Offshore Wind Farm ('OWF')</p>	<p>ES Section 11 – Marine Ornithology (RSK, 2012).</p> <p>Rampion OWF is located 13 km off the coast of Sussex, (approx. 12 km) to the east of the Proposed Development.</p>	<p>Baseline boat-based surveys were undertaken over an area of 1,076 km² around the OWF, whilst aerial surveys were also undertaken over a similar geographic area, covering some 1,100 km².</p>	<p>The Rampion dataset has not changed, due to the project having been consented and is now operational.</p> <p>It is recognized that Rampion 2 has progressed to public consultation and the Preliminary Environmental</p>	<p>As the data from Rampion 1 have not changed and there are no more recent data available there is a high level of confidence that the conclusions within Chapter 11 remain valid.</p> <p>The Rampion 2 preliminary ornithological conclusions do not differ significantly from Rampion 1 baseline conclusions, regarding species sensitivity to disturbance and</p>

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		Boat-based surveys were undertaken on a monthly basis between March 2010–February 2012, with aerial surveys undertaken on a monthly basis between August 2010 and August 2011.	Information (PEIR) is available. Baseline data include the use of data collected in Rampion 1 in addition to new aerial surveys of the proposed array area.	displacement. There is a high level of confidence that the overall data remain valid and that the conclusions made within Chapter 11 of the ES for the Proposed Development remain the same.
Navitus Bay Wind Park	ES Chapter 12 – Offshore Ornithology (Navitus Bay Wind Park, 2014). Baseline Offshore Ornithological Assessment for the Navitus Bay Wind Park project (APEM, 2013). The proposed Navitus Bay Wind Park was located 14 km off the coast of Dorset (south-west of the Isle of Wight)	Baseline boat-based surveys were undertaken over 24 months (December 2009–November 2011) with additional boat-based surveys in spring and autumn of 2011 for migrants. Aerial surveys were undertaken between November 2009–February 2010, and January–March 2011.	The Navitus dataset has not changed and still considered valid even though the project was refused (a decision unrelated to ornithology).	As the data have not changed, the data are still considered valid. The conclusions made within Chapter 11 of the ES for the Proposed Development therefore remain valid.

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	[Approx. 50 km] west of the Proposed Development.			
L'Agence Française pour la Biodiversité ('AFB')	The SAMM (Aerial Monitoring of Marine Megafauna) Campaign (Pettex <i>et al.</i> , 2014; Pettex <i>et al.</i> , 2017).	All French Territorial Waters were surveyed using a visual aerial survey method during two survey campaigns: winter 2011/12 and summer 2012. The raw data were modelled to create density surface maps.	A more recent campaign of monitoring (SAMM II) was published in July 2022, with surveys having been taken during winter 2021.	<p>The estimated abundance of auks between the SAMM I and SAMM II campaigns increased markedly (297,000 individuals (244,000-365,000) in SAM I vs 1,007,000 individuals (863,000-1,183,000) in SAMM II).</p> <p>The populations of gannets, black-backed gulls and other large gulls remained stable, while small gulls also increased (approx. 250,000 compared to approx. 160,000).</p> <p>Kittiwake also increased (approx. 60,000 compared to approx. 29,000), as did numbers of small shearwaters (8,300 up from 1,000) and great skua (4,600, up from 2,500).</p> <p>Population estimates of terns and storm petrels decreased (1,500 down from 2,700 and 4,100 down from 9,000 respectively).</p>

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				<p>It is considered that changes in the estimated population sizes for these seabird species and species groups can be attributed to interannual variation in the marine environment, as well as the dates during which the aerial survey campaigns were flown (SAMM II effort, for example, extended into March, when seabirds are returning to their breeding colonies, whereas SAMM I effort terminated in February). Furthermore, advances in surveying techniques during the intervening decade (visual SAMM I vs digital SAMM II) are likely to result in a higher level of detectability and therefore accuracy in the resultant population estimates.</p> <p>Increases in population sizes are considered to result in the dilution of any impacts arising from activities associated with the project, and as such there is a high level of confidence that, in light of these contemporary datasets, the conclusions of the 2019 Chapter 11 conclusions remain valid.</p>

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
JNCC	Seabird 2000 Census (Mitchell <i>et al.</i> , 2004).	Seabird 2000 was the third complete census of the entire breeding seabird population of Britain and Ireland.	The Seabird 2000 census has now been superseded by the Seabirds Count, the 4 th national seabird census (undertaken 2015-2021). The data due to be published in 2023 [at the time of writing 21/03/2023], however this work compliments the Seabird Monitoring Programme (SMP), for which reports are available (JNCC, 2021).	<p>Results from JNCC (2021) show percentage population changes of seabird species between 2000 and 2019, and between 1985/88 and 1998/2002 (Mitchell <i>et al.</i>, 2004).</p> <p>Comparison between these two datasets show that seabird population trends broadly follow the trajectories under which the 2019 Chapter 11 conclusions were drawn.</p> <p>There is a high level of confidence that, in light of these contemporary datasets, the conclusions of the 2019 Chapter 11 conclusions remain valid.</p>
	European Seabirds at Sea ('ESAS') Database (Stone <i>et al.</i> , 1995).	Major atlas presents a comprehensive assessment of seabirds in north-west European waters and comes from a collaboration between several countries. Data were collected from 1979 to 1994 and have	There is no change to the data used, nor are there more recent data.	As the data have not changed, the data are still considered valid. The conclusions made within Chapter 11 of the ES for the Proposed Development therefore remain valid.

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		been used to describe the seasonal distribution and abundance of over 50 species of seabird.		
	JNCC Coastal Directories Project: Region 8 Sussex: Rye Bay to Chichester Harbour (Barne <i>et al.</i> , 1998) and Region 9: Southern England: Hayling Island to Lyme Regis (Barne <i>et al.</i> , 1996).	The JNCC's Coastal Directories project, collated extensive baseline environmental and human use information, including fisheries, for the coastal and nearshore Marine zone of the whole of the UK.	There is no change to the data used, nor are there more recent data.	As the data have not changed, the data are still considered valid. The conclusions made within Chapter 11 of the ES for the Proposed Development therefore remain valid.
	JNCC Reports No. 431, No. 461, No. 500 (Kober <i>et al.</i> , 2010; Kober <i>et al.</i> , 2012; Wilson <i>et al.</i> , 2014; Parsons <i>et al.</i> , 2015).	JNCC species abundance and distributional analyses to inform the identification of possible Marine SPAs in the UK.	Woodward <i>et al.</i> 2019 reviews the desk-based foraging ranges for seabird species. Changes to the foraging ranges under which species are assessed has the potential to result in the inclusion of colonies	It is recognised that Woodward <i>et al.</i> 2019 provides new guidance on breeding seabird colony connectivity and updates the published foraging ranges previously defined in Thaxter <i>et al.</i> , (2012) which were used within the assessments for the Proposed Development. It is considered that, although the distances published in Woodward <i>et al.</i> , (2019) may in some

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
			<p>that were previously not included, or equally may exclude sites that were previously included. In addition, Fleissbach <i>et al.</i> 2019 which discusses seabird sensitivity to vessel related disturbances, provides a ranked index of species by their sensitivity to using a Disturbance Vulnerability Index (DVI).</p>	<p>cases be considerably greater than those published in Thaxter <i>et al.</i>, (2019) (see Annex A of the HRA Validity Report where a review of Woodward <i>et al.</i> has been undertaken), the EIA assessment does not require to be updated in light of this new information, because the assessment already undertaken is suitably conservative for the type of project and resulting impacts that may arise. As such, it is considered that all relevant seabird species over a large area have been adequately assessed and that the existing assessment remains valid.</p> <p>It is also considered with a high degree of confidence that the Fleissbach <i>et al.</i>, (2019) reference supports the conclusions of Chapter 11 of the ES. As such, the assessment remains valid.</p>
NE	Technical Information Notes ('TINs'): Species Information for Marine Special	Information and guidance notes on scientific and technical	The Technical Information Notes used have not been updated or changed since.	As the data have not changed, the data are still considered valid. The conclusions made within Chapter 11 of

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	Protection Area Consultations (NE, TIN 128, 135, 136, 138 and 139).	issues, including practical advice.		the ES for the Proposed Development therefore remain valid.
	Designated Sites View website.	Site and species-based conservation advice and advice on operations.	There are no new designated sites within the area, nor are there any changes to the existing sites used within the report.	As the data have not changed, the data are still considered valid. The conclusions made within Chapter 11 of the ES for the Proposed Development therefore remain valid.
	Data obtained from the SeaMaST and associated reports and publications (e.g. WWT, 2013; Bradbury <i>et al.</i> , 2014).	This dataset provides evidence on the use of sea areas by all seabirds and inshore waterbirds in English Territorial Waters, including their sensitivity to offshore wind development. The analysis of displacement risks is considered relevant to the Proposed Development.	The SeaMast data were collected between 1972 and 2012, and no further data collection has been completed. Additionally, no further reports/publications using these data have superseded those already used.	As the data have not changed and there are no more recent data, reports or publications available, this will not change the data validity employed in the existing assessment. The conclusions made within Chapter 11 of the ES for the Proposed Development therefore remain valid.

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
British Trust for Ornithology ('BTO')	Wetland Bird Survey ('WeBS') peak count data for the Portsmouth region (Frost <i>et al.</i> , 2019).	WeBS is the principal scheme for monitoring wintering waterbird populations in the UK.	The WeBS bird surveys are completed every winter. The most recent data available online are from winter 2019/2020 (Frost <i>et al.</i> , 2021), This is a broad scale report, with finer detail being available for purchase via the BTO. These finer scale detail data are not readily available and have not been reviewed at this time as the broad scale data indicates comparability with the data considered in the assessment.	Broad scale data for Poole harbour (Frost <i>et al.</i> , 2021) show that the seasonal mean counts of wintering waterbirds has remained stable in 2019/20, in line with previous counts. Given the indicative stability provided by the broad scale data from Poole Harbour, there will be no significant change in the validity of the data employed in the existing assessment. There is a high level of confidence in this conclusion. The conclusions made within Chapter 11 of the ES for the Proposed Development therefore remain valid.
Wakefield <i>et al.</i>, (2013); Warwick-Evans <i>et al.</i>, (2016)	Tracking data from gannets breeding on Les Etacs, Alderney	Tracking data have been gathered over a number of years at this colony (Les Etacs: 2011-2015) and are	A review of tracking data within the vicinity revealed that no new relevant studies have been completed. Gannet tracking is still	As the data have not changed and there are no more recent data available, this will not change the validity of the data. The conclusions made within Chapter 11 of the ES for

Chapter 11 Marine Ornithology Organisation	Data Type	Details	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		summarised in peer-reviewed papers.	ongoing, however insufficient information has been gathered to supersede the data previously used (Purdie, 2022).	the Proposed Development therefore remain valid.

Chapter 12 Commercial Fisheries

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
UK	MMO, 2018	Fisheries statistics (landings and effort data)	2013 – 2017	Fishing effort in days and landings, values in pounds by UK registered vessels by species, method, size and port. Includes vessels of all categories (under 10, 10-15 m and over 15 m).	2016 -2020 (MMO, 2021)	There is a high level of confidence that the conclusions made within Chapter 12 will remain the same. There have been changes during this period (2018-2023) due to Brexit and Covid but these changes have not resulted in a notable difference to the baseline, for the fisheries landing values. Therefore, if the existing assessment considered this more recent dataset, there is a high level of confidence that the magnitude of impacts to identified receptors would be less, not greater than what has already been assessed. Therefore, the conclusions made remain valid.
		Surveillance sightings	2013 – 2017	Sightings of all fishing vessels (regardless of size or nationality) recorded by routine patrols within the UK EEZ.	2016 -2020 (MMO, 2021)	There is a high level of confidence that the conclusions made within Chapter 12 remain valid. There have been changes during this period (2018-2023) due to Brexit and Covid but these changes have not resulted in a notable difference to the baseline, for fishing activity. Therefore, if the existing assessment considered this more recent dataset, there is a high level of confidence that the magnitude of impacts to

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
						identified receptors would be less, not greater than what has already been assessed. Therefore, the conclusions made remain valid.
		Vessel Monitoring System ('VMS')	2013 – 2017	VMS data combined with log book data of all over 15 m UK vessels. Data provided in terms of effort and value. Data filtered by speed. VMS data provided as aggregated number of vessel positions within a grid of rectangles of approximately 5.3 nmi.	2016 -2020 (MMO, 2021)	There is a high level of confidence that the conclusions made within Chapter 12 will remain the same. There have been changes during this period (2018-2023) due to Brexit and Covid but these changes have not resulted in a notable difference to the baseline, for fishing activity. Therefore, if the existing assessment considered this more recent dataset, there is a high level of confidence that the magnitude of impacts to identified receptors would be less, not greater than what has already been assessed. Therefore, the conclusions made remain valid.
France	OBSMER report 2015 (IFREMER/D PMA)	VMS	2014	Effort data derived from VMS in days by over 15 m	OBSMER : Report of 2020 for French fisheries here	This 2020 report lacks the granularity of data to report specifically on the French fleet within the UK Marine Area. Further, the report explains that COVID caused a significant disruption to

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
					significantly reduced.	
	SIH Publications by ICES rectangles (SIH publication archimer.ifremer.fr (2013))	Fisheries statistics for ICES rectangle 28F0, 29F0, 29E9	2011	Fleet structure and specifications for vessels recording activity in a given ICES rectangle that year.	No recent readily data available.	There have been changes during this period (2018-2023) due to Brexit and Covid but these changes have not resulted in a notable difference to the baseline, for French fishing effort within the UK Marine Area. Therefore, there is a high level of confidence that the magnitude of impacts to identified receptors would be less, not greater than what has already been assessed. Therefore, the conclusions made remain valid.
	Comité Régional des Pêches Maritimes et des Elevages Marins (CRPMEM) of Normandie, CRPMEM of Hauts-de-	VALPEN A data	2014	The VALPEN data derives from interviews with voluntary skippers who indicate for a given year the distribution of their fishing activity, gear used and target species. The	No recent data available.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 12 remain the same.

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	France, Valpena report, Jalon 2, April 2018			<p>seasonal variability is also recorded.</p> <p>Fishing density in number of vessels by 3x3 nmi cell (30 km²) at the scale of study area.</p> <p>Fleet structure: distribution of vessels by gear type and average length.</p> <p>Seasonal variation of fishing activity by method.</p> <p>The data cover all vessels regardless of the size and therefore includes <15 m vessels.</p>		

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	UMR Amure – relevant research on French fisheries in the Channel	Reports from the Channel integrated approach for marine resource management ('CHARM') project – EU Interreg IVa.	2011 – 2012	Reports include description of French fleets targeting grounds in the Channel.	No recent reports available.	There have been no updates to this data source since 2019. As such, the conclusions reached in Chapter 10 remain the same.
	Scientific, Technical and Economic Committee for Fisheries ('STECF') – 2018 annual	Statistics on European fishing fleets economic	2016	Report includes description of French fleet (structure, economic performance, etc.) as a whole.	Yes, a new report was published in 2022.	This report highlights that the number of French fishing enterprises has decreased between 2008 and 2021. The total production landed by the French fleet decreased by 13% in weight from 2019 to 2020 and the value decreased by 14% reaching EUR 756 million in 2020. At the national level, the French fleet, after reaching in 2016 its highest economic performances since 2008,

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	economic report on the EU fishing fleet	performance				driven by a high income from landings, decreased by 11% in 2020 compared to 2019. Therefore, there is a high level of confidence that the magnitude of impacts to receptors would be less, not greater than what has already been assessed and the conclusions made remain valid.
Belgium	Belgian Institute for Agricultural and Fisheries Research ('ILVO'), 2016	Fisheries statistics (landings and effort data)	2010 – 2014	Fishing effort in days and landings values in euros for all over-10 m Belgian vessels.	No recent data available.	There is a high level of confidence that the conclusions made within Chapter 12 remain valid. There have been changes during this period (2018-2023) due to Brexit and Covid, these changes have not resulted in a notable difference to the baseline, for Belgian fishing effort within the UK Marine Area.
		VMS	2010 - 2014	VMS data combined with logbook data by over-15 m Belgian vessels to give values and effort. Data filtered by speed.	No recent data available.	There is a high level of confidence that the conclusions made within Chapter 12 remain valid.

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				VMS data provided as the aggregated number of vessel positions within a grid of rectangles of approximately 56 nmi ² .		
Netherlands	Netherlands, Institute for Marine Resources and Ecosystem Studies ('IMARES') and Landbouw Economisch Instituut ('LEI') VMS and integrated	Fisheries statistics (landings and effort data)	2013 – 2017	Fishing effort in days and landings values in euros for all over 10 m Dutch vessels.	No recent data available.	There is a high level of confidence that the conclusions made within Chapter 12 remain valid. There have been changes during this period (2018-2023) due to Brexit and Covid but if anything, these changes have not resulted in a notable difference to the baseline, for Netherlands fishing effort within the UK Marine Area.
		VMS	2013 – 2017	VMS data combined with logbook data by Dutch vessels in the North Sea to give fishing effort and value. Data filtered by speed.	No recent data available.	There is a high level of confidence that the conclusions made within Chapter 12 remain valid.

Country	Chapter 12 Commercial Fisheries Data/ source used in 2019 ES	Nature of data	Year(s)	Description	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
	Landings data, 2018			VMS data are provided as the aggregated number of vessel positions within a grid of rectangles of approximately 56 nmi ² .		

Chapter 13 Shipping, Navigation and Other Marine Users

Chapter 13 Shipping, Navigation and Other Marine Users Organisation	Data Type	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Anatec	AIS data	Six months of AIS data from the following periods to cover seasonal variation: 1 December 2017 – 28 February 2018 (winter); and 1 May – 31 July 2018 (summer).	MGN 654, which is an update to MGN 543, is a key guidance document for the Navigation Risk Assessment (NRA). This guidance advocates that the traffic survey (in this case the AIS data) should be undertaken within 12 months prior to submission, although this can be extended to a maximum of 24 months for new projects being assessed.	Since commercial shipping in the area generally follows charted routeing measures (e.g. Dover Strait TSS, approach channels into Portsmouth and Southampton) the conclusions of the assessment are not expected to change. New datasets may identify changes to shipping patterns due to new offshore developments, changes to ferry routes, changes to aggregate extraction areas, changes to trade routes, changes to ports, commercial (e.g. Brexit, cost of living) or environmental impacts. From the reviews of existing data sources and cumulative projects undertaken, there are no new offshore developments and there are no changes to aggregate areas (although some aggregate areas that were closer to the Marine Cable Corridor near the EEZ in the existing assessment are no longer relevant as their licences expire prior to the commencement of works for the Proposed Development). There are a number of other factors that could affect shipping activity in the study area, but no significant changes have been identified. This conclusion is supported by a 2023 AIS Data

Chapter 13 Shipping, Navigation and Other Marine Users Organisation	Data Type	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
				Validation Study undertaken employing the more recent datasets and presented in Appendix 4.4 of the ES Addendum3. Therefore, considering the outcomes of this review, along with the mitigations proposed within the existing NRA and secured in the Deemed Marine Licence, there is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid.
MMO	Satellite VMS Fishing Activity data	Two years of VMS data (2015/2016) provided in a density-based grid.	Latest available dataset is (2019/2020)	In undertaking the commercial fisheries review for Chapter 12 for the Proposed Development, it has been identified that there have been changes during recent years (2018-2023) due to Brexit and Covid but these changes have not resulted in any notable differences to the baseline for fishing activity, which is supported by the 2023 AIS Data Validation Study presented in Appendix 4.4 of this ES Addendum 3. Therefore, there is a high level of confidence that the conclusions made within the assessments presented in Chapter 13 remain valid.

Chapter 13 Shipping, Navigation and Other Marine Users Organisation	Data Type	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Royal National Lifeboat Institution ('RNLI')	Maritime Incident data	RNLI data logs details of incidents it responds to, including the cause of incident. Data were available from 2005 to 2014.	Latest available dataset is (2011 to 2020)	There is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid, as new incident data expected to have minimal impact on overall rankings.
MAIB	Maritime Incident data	MAIB data were available from 2005 to 2014. All UK commercial vessels and non-UK vessels within a UK port or the UK 12 nmi Territorial Waters & carrying passengers to a UK port, are required to report accidents to the MAIB.	Latest available data is (2011 to 2020)	There is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid, as new incident data expected to have minimal impact on overall rankings.
United Kingdom Hydrographic Office (UKHO)	UK Admiralty Charts	Admiralty charts are nautical charts issued by the UKHO. Charts used for the assessment include:	Admiralty charts are updated by UKHO regularly.	No known significant changes to Admiralty charts, therefore there is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid.

Chapter 13 Shipping, Navigation and Other Marine Users Organisation	Data Type	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
		<p>1652: Selsey Hill to Beachy Head</p> <p>2036: The Solent and Southampton Water</p> <p>2037: Eastern Approaches to the Solent</p> <p>2045: Outer Approaches to the Solent</p> <p>2450: Anvil Point to Beachy Head</p> <p>2451: Newhaven to Dover and Cap d'Antifer to Cap Gris-Nez</p> <p>2625: Approaches to Portsmouth</p> <p>3418: Langstone and Chichester Harbours</p>		

Chapter 13 Shipping, Navigation and Other Marine Users Organisation	Data Type	Details of Data	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
UKHO	Admiralty Sailing Directions	Admiralty Sailing Directions – Channel Pilot, NP27, 10th Edition, 2014	The latest edition is (2022)	No known significant changes to latest version of Admiralty Sailing Directions, therefore there is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid.
TCE	Aggregate Dredging Areas	The Crown Estate: Mineral and Aggregate Dredging Areas (dated 12 April 2018)	Latest data available is (Feb 2023).	As the aggregate dredging areas in this region remain unchanged there is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid.
TCE	Offshore Wind Farms	The Crown Estate: Offshore Wind (dated 21 August 2018)	Latest data available (Feb 2023), which includes the proposed Rampion 2 offshore wind farm extension.	Rampion 2 has been considered in the cumulative review and there is a high level of confidence that the that the conclusions of the Chapter 13 assessment remain valid.
RYA	RYA Coastal Atlas UK	RYA UK Coastal Atlas of Recreational Boating 2.0 data including intensity grid, general boating areas and offshore routes, as well as locations of clubs, training centres and marinas.	RYA Coastal Atlas (2019)	Update to RYA Coastal Atlas does not significantly change findings of baseline recreational activity, therefore there is a high level of confidence that the conclusions of the Chapter 13 assessment remain valid.

Chapter 14 Marine Archaeology

Chapter 14 Marine Archaeology Data/Information	Source	Data Use (if applicable)	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
The United Kingdom Hydrographic Office ('UKHO') data for charted wrecks and obstructions	UKHO	Data used to inform the baseline characterisation (seabed features including maritime and aviation receptors) for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline Written Scheme of Investigation	Updated data requested March 2023.	Updated data search from UKHO database revealed no new records within the Marine Cable Corridor, and therefore the data utilised for the EIA is still valid. Accordingly, no changes to the impact assessment which remains valid.
Geophysical survey datasets (including sub-bottom profile, multibeam echosounder, sidescan sonar and magnetometer survey) acquired for the Project (2018)	MMT	Data used to inform the baseline characterisation (seabed features) for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline Written Scheme of Investigation, which outlined the proposed mitigation measures.	No further data requested.	Data utilised is still valid for the EIA. Accordingly, no changes to the impact assessment which remains valid.
Geotechnical datasets (including vibrocores and Cone Penetration Tests) acquired for the Project and	MMT	Data used to inform the baseline characterisation (seabed prehistory) for the ES Chapter 14 Marine Archaeology, including	No further data requested.	Data utilised is still valid for the EIA. Accordingly, no changes to the impact assessment which remains valid.

Chapter 14 Marine Archaeology Data/Information	Source	Data Use (if applicable)	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
<i>in situ</i> Site Investigation (2018)		Appendix 14.3 Outline Written Scheme of Investigation, which outlined the proposed mitigation measures.		
The National Record of the Historic Environment ('NRHE') maintained by HE, comprising data for terrestrial and marine archaeological sites, find spots and archaeological events.	Historic England	Data used to inform the baseline characterisation (seabed features including maritime and aviation receptors, and intertidal heritage assets) for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline Written Scheme of Investigation	Updated data requested March 2023.	Updated data search from the National Marine Heritage Record (previously the NRHE) database revealed no new records within the Marine Cable Corridor, and therefore, data utilised for the EIA is still valid. Accordingly, no changes to the impact assessment which remains valid.
The National Heritage List for England maintained by HE, comprising data of designated heritage assets including sites protected under the <i>Protection of Military Remains Act 1986</i>	Historic England	Data used to inform the baseline characterisation (seabed features including maritime and aviation receptors, and intertidal heritage assets) for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline	Updated data requested March 2023.	Updated data search from the National Heritage List database revealed no new records within the Marine Cable Corridor, and therefore, data utilised for the EIA is still valid. Accordingly, no changes to the impact assessment which remains valid.

Chapter 14 Marine Archaeology Data/Information	Source	Data Use (if applicable)	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
and the <i>Protection of Wrecks Act 1973</i>		Written Scheme of Investigation		
The PCC and HCC Historic Environment Records ('HER'), comprising a database of all recorded terrestrial and marine archaeological sites, find spots and archaeological events within the county and offshore	Portsmouth and Hampshire Council HERs	Data used to inform the baseline characterisation (seabed features including maritime and aviation receptors, and intertidal heritage assets) for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline Written Scheme of Investigation	Updated data requested March 2023.	Updated data search from PCC database revealed no new records within the Marine Cable Corridor, and therefore, data utilised for the EIA is still valid. Accordingly, no changes to the impact assessment which remains valid. Updated data search from HCC database revealed no new records within the Marine Cable Corridor, and therefore, data utilised for the EIA is still valid. Accordingly, no changes to the impact assessment which remains valid.
The Historic Seascape Characterisation ('HSC') report for the Solent and waters off the Isle of Wight (Hampshire and Wight Trust for Maritime Archaeology ('HWTMA'), Bournemouth University and Southampton University, 2007)	Historic England	An HSC of the area was undertaken utilising the report produced for the Solent and waters off the Isle of Wight. This informed the historic seascape in the project area, based on the primary cultural processes within the project area.	No further data requested.	Data utilised is still valid for the EIA. Accordingly, no changes to the impact assessment which remains valid.

Chapter 14 Marine Archaeology Data/Information	Source	Data Use (if applicable)	More Recent Data (if available)	Notes on Data Validity used for the ES and impact of using more recent data
Relevant mapping including Admiralty Charts, British Geological Survey ('BGS'), Ordnance Survey and historic maps	British Geological Survey	Data used to inform the baseline characterisation (seabed prehistory, and maritime and aviation features) for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline Written Scheme of Investigation	No further data requested.	Data utilised is still valid for the EIA. Accordingly, no changes to the impact assessment which remains valid.
Relevant documentary sources and grey literature held by Wessex Archaeology, and those available through the Archaeological Data Service (ADS) and other websites	Various	Data used to inform the baseline characterisation for the ES Chapter 14 Marine Archaeology, including Appendix 14.3 Outline Written Scheme of Investigation	Updated search undertaken on ADS portal	Search revealed no relevant updated literature. Data utilised is still valid for the EIA. Accordingly, no changes to the impact assessment which remains valid.