Department for
Business, Energy
& Industrial Strategy

Review of Consents for Major Infrastructure Projects and Special Protection Areas

Regulation 65 of the Conservation of Habitats and Species Regulations 2017, and Regulation 33 of the Conservation of Offshore Marine Habitats and Species Regulations 2017

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Contents

1 Introduction

1.1 Background

This is a record of the Habitats Regulations Assessment ("HRA") that the Secretary of State for Business, Energy and Industrial Strategy (BEIS) has undertaken under the *Conservation of Habitats and Species Regulations 2017* ("the Habitats Regulations") re consents for projects onshore or in the territorial sea and the *Conservation of Offshore Marine Habitats Species Regulations 2017* ("the Offshore Habitats Regulations") re the UK Continental Shelf in respect of existing consents granted under the *Planning Act 2008* (as amended)[1] and *Electricity Act 1989* (as amended), in relation to certain Special Protection Areas (SPAs). These consents are subject to review under regulations 85 and 89 of the Habitats Regulations respectively, and regulation 33 of the Offshore Habitats Regulations for both types of consent.

Under regulation 65 of the Habitats Regulations, and 33 of the Offshore Habitats Regulations, the competent authority (in this case BEIS) is required to review decisions made regarding consents, permissions or other authorisations for all relevant plans or projects which are likely to have a significant effect on a European site either alone or in combination with other plans or projects, which are not directly connected with or necessary to the management of that site. Where a competent authority reviews a decision, consent, permission or other authorisation under these Regulations, in the form of Appropriate Assessment ("AA")[2] it must affirm, modify or revoke it. It should be noted that nothing in these Regulations affects anything done in pursuance of the decision, or the consent, permission or other authorisation, before the date on which a relevant site (as identified in this HRA screening), became a European site. As such, the range of potential sources of effect for relevant projects varies depending on their stage of implementation.

Under regulations 85 and 89 of the Habitats Regulations, the review provisions apply to a consent unless the works to which the consent relates have been completed before the "relevant date", that being the date on which the site became a European Site or European Offshore Marine Site, or, if consent conditions were for works to commence within a period of time and the works have not begun before the period expired. The development/works are to be treated as "completed" based on the following definitions, as set out in the Habitats Regulations:

- For consents under *Electricity Act 1989*; when the generating station is first operated, which may be prior to the completion of the works in their entirety; or
- For consents under the *Planning Act 2008* and the *Transport and Works Act 1992*[3]; when the development is completed (i.e. fully built out)

[1] The Welsh Ministers are now responsible for section 36 consents and Development Consent Orders (DCOs) up to and including 350MW in Welsh waters, except for those consented before 1st April 2018. BEIS is responsible for all other consents under these Acts.
[2] As per regulation 63(2) to (4) and (8) and regulation 65(1) of the Habitats Regulations, and regulations 28 and 33 of the Offshore Habitats Regulations.
[3] Certain energy projects have been consented under the *Transport and Works Act 1992*, and are included in this review as the power to make an Order under Section 3 of the Act is the responsibility of the Secretary of State.

The review cannot affect anything done in pursuance of the consent before the relevant date. This is also the case for reviews carried out under regulation 33 of the Offshore Habitats Regulations for those projects on the UK Continental Shelf, but note that for the latter, all are subject to the review provisions even if completed.

This report documents the screening stage of the HRA (Section 1.2) being undertaken by the Secretary of State, and therefore identifies and assesses the potential for likely significant effects (LSEs) on SPAs which became European sites or European Offshore Marine sites following the issue of a relevant consent, but prior to the completion of a project for those projects in territorial waters and onshore. The assessment considers the potential for in-combination effects with other plans or projects, and relevant SPAs in other European Economic Area States ("transboundary sites"). Those relevant SPA sites and related consents for which an LSE has been identified will be subject to an AA as part of second stage of the HRA.

1.2 Habitats Regulations Assessment (HRA)

In this document, the assessments as to whether there are LSEs, and, where required, the AA, are collectively referred to as the HRA. The Habitats Regulations, and Offshore Habitats Regulations[4], provide for the designation of sites for the protection of habitats and species of European importance. These sites are called Special Areas of Conservation ("SACs") and Special Protection Areas ("SPAs"); the latter allows for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the EU. SACs and SPAs are collectively termed European sites or European Offshore Marine Sites for those offshore, and form part of a network of protected sites across Europe called, Natura 2000.

As noted in Section 1.1, regulations 63(2) to (4) and (8) of the Habitats Regulations (and similar provisions in regulation 28 of the Offshore Habitats Regulations as appropriate) are relevant to this review of consents, and provides that:

> *(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.*
>
> *(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.*

[4] These Regulations, which transpose the requirements of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive") and Council Directive 2009/147/EC on the conservation of wild birds ("the Birds Directive"), aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects. Note that the *European Union (Withdrawal) Act 2018* confirms that the body of EU law transposed into UK legislation at the time that the UK exits the EU will be retained, such that it will continue to have effect in domestic law after the end of the Implementation Period as defined in the *European Union (Withdrawal) Act 2018*.

> *(4) It must also, if it considers it appropriate, take the opinion of the general public, and if it does so, it must take such steps for that purpose as it considers appropriate.*
>
> *(8) Where a plan or project requires an appropriate assessment both under this regulation and under the Offshore Marine Conservation Regulations, the assessment required by this regulation need not identify those effects of the plan or project that are specifically attributable to that part of it that is to be carried out in the United Kingdom, provided that an assessment made for the purpose of this regulation and the Offshore Marine Conservation Regulations assesses the effects of the plan or project as a whole.*

This HRA screening is focussed on the SPA network of sites. While as a matter of policy[5] the Government affords potential SPAs (pSPAs) the same level of protection as designated sites, the review of consents must address consents in relation to the "relevant date" of site classification (see Section 1.1). As pSPAs have no such relevant date, and as the review is a retrospective consideration of consents, this HRA process does not consider the effects of the consents on pSPAs. Such sites will be considered, as appropriate, at the time they are classified.

The assessment has been undertaken in accordance with the European Commission Guidance (EC 2019) and with reference to other guidance, reports and policy, including the Habitats Regulations Guidance Notes (English Nature 1997, Defra 2012, SEERAD 2000), SNH (2015), the National Planning Policy Framework (MHCLG 2019), the Marine Policy Statement (HM Government 2011), English Nature report No. 704 (Hoskin & Tyldesley 2006) and Natural England report NECR205 (Chapman & Tyldesley 2016).

This report was compiled using evidence from the project-specific documents which are available on the Planning Inspectorate's Nationally Significant Infrastructure Project web pages[6], previous HRAs for relevant projects undertaken as part of the original development consent order process, or subsequently as part of application for non-material changes. Key information from these documents is referenced in this report.

1.3 Consultation

This phase of the HRA process only seeks to determine which relevant consents have the potential to generate LSE. While there is no statutory requirement for consultation for this element of the HRA, BEIS have undertaken informal consultation to seek the advice of all UK Statutory Nature Conservation Bodies ("SNCB") including, the Joint Nature Conservation Committee (JNCC), Natural England (NE), Scottish Natural Heritage (SNH), Natural Resources Wales (NRW), and the Department of Agriculture Environment and Rural Affairs (DAERA). The advice sought included confirmation of SPAs within project scope and their views upon the relevance of projects identified. The draft screening report was subject to public consultation between August and October 2020[7] which included three online workshops held in consecutive weeks in September to allow for engagement with relevant stakeholders

[5] NPS EN-1 para 5.3.9
[6] https://infrastructure.planninginspectorate.gov.uk/
[7] https://www.gov.uk/government/consultations/review-of-consents-for-major-energy-infrastructure-projects-and-special-protection-areas

and the public. The feedback received during this consultation, and how it has been addressed in the final version of the screening document, is summarised in Appendix 3.

Sites and consents where LSE have been identified, will be subject to further assessment, in the form of an AA, which includes a statutory duty on the competent authority to consult the appropriate nature conservation bodies, and the public if necessary, and have regard to any representation made by that body within such reasonable time as the authority specifies.

2 Identification of relevant projects and SPAs

2.1 Approach to the identification of relevant projects

This assessment considers consents granted by the Secretary of State for BEIS (or its forerunner departments) in relation to nationally significant infrastructure projects granted a Development Consent Order under the *Planning Act 2008* (as amended) or a consent under Section 36 of the *Electricity Act 1989* (as amended), or an Order made under the *Transport and Works Act 1992* (as amended), and whether in view of changes to the network of Special Protection Areas (SPAs) following the granting of these consents, but in advance of their completion[8], that the consents should be subject to review. The consents of initial relevance to the review are described in Sections 2.2 and 2.3 below.

The scope of which consents are relevant to review is defined in regulations 65, 85 and 89 of the Habitats Regulations and regulation 33 of the Offshore Habitats Regulations. These indicate that projects within territorial waters which are not completed by the time a site is classified will need to be subject to review, and all those outside of territorial waters are subject to review following a new site being classified, irrespective of their completion status. In view of the wording of the Regulations, the "relevant date" for the purposes of this review is site classification (i.e. when the site became a European site or a European offshore marine site), but this has also been interpreted as when additional features become part of a European site as part of re-classifications. The wording of the Regulations is such that potential SPAs (pSPAs), or features of existing SPAs currently subject to consultation, are not considered to be in scope, but would be subject to any future review once classified. Where a relevant site was assessed as a pSPA in the HRA for a project but was subsequently classified, a comparison of the site citation and pSPA information/developer HRA has been made to understand whether there was any material change at classification which would bring the site or project into the scope of this review.

Following classification[9], SPA citations may be amended over time, for example to account for more recent data relating to species composition, or to extend site boundaries either in the terrestrial or marine environment to cover additional relevant habitat. Where such amendments have resulted in the re-classification of a site[10], the date of that re-classification is considered to be material to considering which consents may be subject to this review, subject to the qualifying features and site location being considered relevant.

The identification of relevant consents and sites to be considered in the screening has been a multi-step process, involving the systematic consideration of SPA classification date in relation to energy project consent and completion dates, the nature of the classification (feature and site extent), the potential connectivity of identified sites with the consented projects, and

[8] The meaning of "completed" differs depending on whether the consent was made under the Planning Act or Electricity Act. For the former, this means that the works authorised by the consent have been fully built out, whereas for the latter, it is from the date of first power generation.
[9] See: https://jncc.gov.uk/our-work/special-protection-areas-overview/#spa-classification
[10] The classification or re-classification of a site is taken as the "relevant date", within the meaning of the relevant Conservation of Habitats and Species Regulations.

whether in view of the proposed activities associated with the project consents (depending on stage of development), whether or not LSE for particular sites can be concluded.

The process used to identify relevant consents and SPAs is outlined below:

- All relevant consents for projects seaward of 12nm were considered to be in scope under regulation 33 of the Offshore Regulations.
- An initial list of UK SPA sites was provided by the UK SNCBs noting which sites were newly classified or modified since 2003. This list was reviewed against other sources of information on site classification data including, the Scottish Natural Heritage SiteLink website[11], Natural England's designated sites website[12], historical submissions to the European Commission noting changes to site features and boundaries[13], checked against current site citations, and knowledge of ongoing or recent consultation processes on pSPA sites, where these have recently been classified.
- The date of classification, or re-classification, was matched to the relevant time period of the review, that being; following the granting of any relevant consent but (for those onshore or in territorial waters) prior to the completion of the project. This, therefore, potentially includes all relevant consents in English and Welsh territorial and offshore waters, and onshore, whether pre-construction, under construction, or operating. The stage of operation has further limited the remit of the review, i.e. for constructed or operational wind farms, only sources of likely significant effect resulting from operation and maintenance can be considered (see list below); and, as noted in Section 1, the review cannot affect anything done in pursuance of the consent prior to the date of SPA classification.
- Where a site was considered relevant as it had been re-classified, only those species associated with the site amendment were considered to be relevant to the review, including when an extension of a site incorporated new features.
- Where post-consent variations to consents, such as non-material changes to DCOs, have instigated a further HRA allowing for the consideration of the most recent suite of SPA sites, these projects were excluded from the review. The HRAs of the remaining projects selected on the basis of the above criteria were reviewed to ensure that site/project combinations identified for inclusion had not already been considered (e.g. as relevant pSPAs). Where a relevant site was subject to assessment as a pSPA in a former project HRA (i.e., in advance of its classification), these site/project combinations were excluded on the basis that the former assessment remained current, but only where it was clear that the basis of the former assessment (e.g. site citation, conservation objectives) was consistent with current information following site classification.

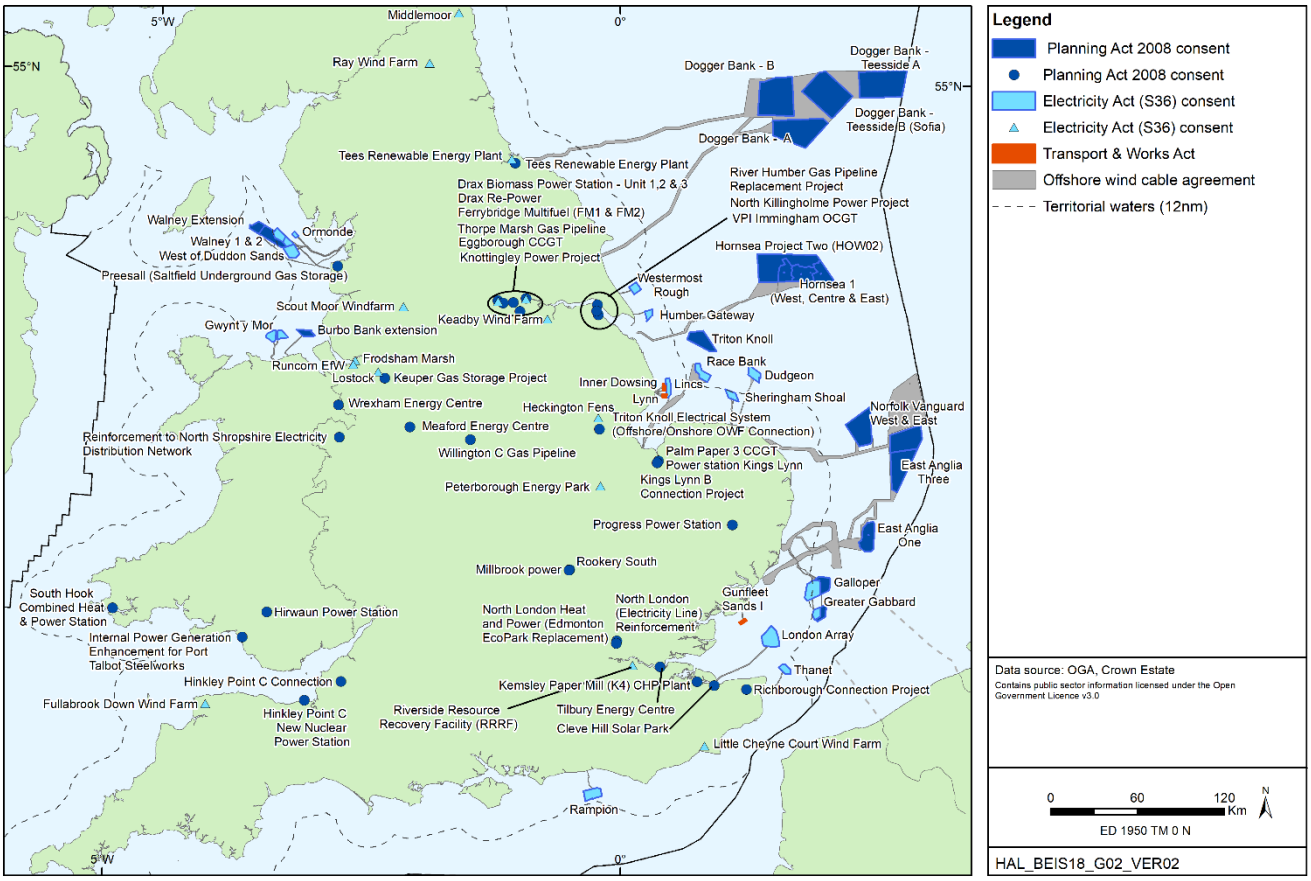
[11] https://sitelink.nature.scot/home
[12] https://designatedsites.naturalengland.org.uk/
[13] Changes to the UK Natura 2000 network are submitted in tranches, the dates of which do not reflect the classification date of a site or site amendment. Many of the submissions relate to modifications of information on the site Standard Data Form (see Decision 2011/484/EU) to reflect what is already captured on UK citations, or other minor amendments that do not result in the re-classification of a site. See: https://jncc.gov.uk/our-work/special-protection-areas-overview/#spa-classification and https://webarchive.nationalarchives.gov.uk/20190307215546/http://jncc.defra.gov.uk/page-3517-theme=default

The above process is documented in its entirety in Appendix 1 to this document, and is summarised below.

2.2 Relevant projects

As noted in Section 1.1, all energy consents under the remit of the Secretary of State for Business Energy and Industrial Strategy are initially relevant to this review, including those made under the *Planning Act 2008* (as amended), the *Electricity Act 1989* (as amended) and the *Transport and Works Act 1992* (as amended). These cover a wide array of energy project types located onshore and offshore in England and Wales (Figure 1), including those for offshore and onshore wind, underground gas storage, power stations and infrastructure such as pipelines and overhead cabling. Certain projects previously consented by the Secretary of State for Business Energy and Industrial Strategy (and its forerunner departments) can no longer be reviewed by this department. This because the remit for such consents, which includes those energy projects with a capacity equal to or less than 100MW in English waters, and equal to or less than 350MW in Wales and Welsh waters, has passed to the Marine Management Organisation (MMO) or Welsh Ministers respectively. Additionally, projects with a capacity of 50MW or less are considered under the *Town and Country Planning Act 1990* and are not subject to review. Only projects for which a consent has been granted have been considered, i.e. those currently in-planning are not within the scope of this review.

Figure 1: Relevant projects consented under the Planning Act, Electricity Act and Transport & Works Act



The identification of SPA sites and projects which are within project scope relies on an understanding of the consenting and completion (where this has occurred) timelines of those projects shown in Figure 1, particularly for those which are onshore or within territorial waters. For those projects in offshore waters, SPAs classified at any time following consent and completion are relevant, noting in all cases that the review does not apply to anything done before the SPA was classified. The project consent and completion dates were gathered from sources including the renewable energy planning database[14], individual project consent letters available on the Planning Inspectorate website[15], the BEIS EIP webpages[16], and other sources such as the Digest of UK Energy Statistics for terrestrial power stations[17] and individual project websites. A tabulation of the projects and their relevant dates is provided in Appendix 1. Where no relevant SPA classifications were identified for a consent, then that consent was excluded from further consideration in the review.

2.3 Relevant SPAs

The initial selection of SPAs was generated by filtering their classification dates against the project consent/completion dates as noted above. In view of the timespan considered in the review, and the lack of spatial precision at the initial stage of site selection, this initial list was considerable, identifying some 150 potentially relevant sites. The sites were further considered against their location and the potential for interaction with any of the relevant projects. For example, a number of sites were discounted due to the lack of a potential interaction in view of the location of the consented projects (England and Wales). Interactions were discounted for distant Scottish sites for golden eagle, hen harrier, corncrake, capercaillie, for breeding seabirds where projects were not within the mean maximum foraging range (after Woodward *et al.* 2019) of relevant features, were not within migratory flyways of wintering SPA features (after Wright *et al.* 2012, BTO 2012[18]), or otherwise showed habitat preferences that may exclude the potential for LSE (e.g. species with strong maritime associations relative to projects located inland).

While pSPAs are not being considered as part of this review (see Section 1.2), previous HRAs for projects may have considered such sites as it is a matter of policy for UK competent authorities[19]. The HRAs for the projects identified to be relevant to the LSE consideration were, therefore, reviewed to understand if any of the relevant sites had been previously assessed. This included for HRAs relating to the original Development Consent Orders, or any subsequent non-material changes. Where such an assessment was undertaken, and the basis of that assessment remains unchanged (i.e. the site citation information or conservation objectives used as part of the pSPA assessment were not materially different to those on classification), then these site/project combinations were not considered further. Such circumstances are noted against relevant projects in Table 1 and are documented in Appendix 1.

[14] https://www.gov.uk/government/publications/renewable-energy-planning-database-monthly-extract
[15] https://infrastructure.planninginspectorate.gov.uk/
[16] https://itportal.beis.gov.uk/EIP/pages/overview.htm
[17] https://www.gov.uk/government/statistics/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes
[18] The potential for interaction with wintering birds of relevant SPAs was identified with the help of the Strategic Ornithological Support Services (SOSS) Migration Assessment Tool (MAT).
[19] For example as acknowledged in the National Planning Policy Framework (MHCLG 2019), devolved policy (e.g. Scottish Planning Policy) and Marine Policy Statement (HM Government 2011).

The majority of changes to the SPA network in recent years have been to sites with marine features, including for seabird colonies (both new sites or marine extensions which cover habitat use for one or more qualifying interests) and wintering sites (including extensions to estuarine habitats and also offshore areas, particularly for red-throated diver). This recent focus of SPA conservation will limit the potential for interaction with most onshore consents, and therefore which are taken forward to the LSE stage. A full list of all the sites identified and a consideration of the reasons for inclusion in the review is presented in Appendix 1.

It should be noted that the exclusion of any project from the review for a particular site reflects the limitations of the scope of the review as set out above (i.e. the date of consent and site classification), or the lack of a potential for interaction with any relevant SPA. It does not imply that certain project/site combinations are no longer subject to assessment on the basis that they form part of a "baseline" of effect on a site. The in-combination assessment for this HRA process will consider all relevant plans and projects against the sites for which an LSE has been identified, which will include all existing plans and projects with the potential to have an in-combination effect.

2.4 Project and SPA site combinations for further assessment

A list of projects and their related SPAs which have been identified as relevant to this review are listed in Table 1. Note that these are not the sites or consents for which an LSE has been identified, but reflect the potential for interaction between a relevant consent and site following the approach detailed in Sections 2.2 and 2.3. Where an SPA has been subject to previous assessment (as a pSPA in previous HRA), the conclusions of that former HRA are adopted for that site/project combination, unless there are reasons why the conclusions of the former HRA can no longer be relied upon. Those sites and consents subject to an LSE test (Section 3) are shown in Figure 2.

Table 1: Projects and related SPAs identified as relevant to the review of consents

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
Projects located all or partly in offshore waters				
Dogger Bank A & B	Offshore wind	Consented 17/02/2015. Subsequent decision on a non-material change made 23/03/20	Flamborough and Filey Coast	Gannet, kittiwake guillemot, razorbill, puffin (assemblage feature)
			Flamborough and Filey Coast was considered in the HRA for this consent as a pSPA, and has subsequently been considered in an HRA for a non-material change[20] *such that a review of consents has effectively been undertaken for this site in relation to the consent.*	
			Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
			Northumberland Marine	Puffin
			Farne Islands	Kittiwake, puffin (assemblage features)
			Coquet Island	Puffin (assemblage feature)
Dogger Bank C	Offshore wind	Consented 05/08/2015. Subsequent decision on a non-material change	Northumberland Marine	Puffin
			Farne Islands	Kittiwake (assemblage feature)
			Coquet Island	Puffin (assemblage feature)
			Flamborough and Filey Coast	Gannet, kittiwake, puffin (assemblage feature)

[20] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010021/EN010021-002370-Dogger%20Bank%20Creyke%20Beck%20Offshore%20Wind%20Farm%20HRA%20April%202019_.pdf

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
		made 12/08/20	*Flamborough and Filey Coast was considered in the original HRA for this consent as a pSPA, and has subsequently been considered in HRAs for a non-material changes[21] such that a review of consents has effectively been undertaken for this site in relation to the consent.*	
			Teesmouth and Cleveland Coast	northern shoveler, Eurasian teal, sanderling, red knot, great cormorant, common shelduck, common redshank, avocet, waterbird assemblage, little tern, Sandwich tern, common tern
			A review in relation to the export cable for the Dogger Bank C project for the Teesmouth and Cleveland Coast SPA was undertaken for the most recent non-material change for that project and this site will not be considered further in this review.	
Sofia offshore wind farm	Offshore wind	Consented 05/08/2015. Subsequent decision on a non-material change made 12/08/20	Flamborough and Filey Coast	Gannet, kittiwake, razorbill, puffin (assemblage feature)
			Flamborough and Filey Coast was considered in the original HRA for this consent as a pSPA, and has subsequently been considered in an HRAs for a non-material changes (as per Dogger Bank C) such that a review of consents has effectively been undertaken for this site in relation to the consent.	
			Northumberland Marine	Puffin
			Coquet Island	Puffin (assemblage feature)
			Farne Islands	Kittiwake, puffin (assemblage features)
			The HRA for the Dogger Bank C and Sofia wind farms (formerly Dogger Bank Teesside A & B) included the species under the 2001 SPA Review (Stroud et al. 2001) for the Farne Islands, which included puffin and kittiwake. It was concluded, along with consultation through the examination, that the projects will not have an adverse effect on site integrity. As the later classification of this site was made on the basis of including those features identified as part of the 2001 SPA review, and were subject to previous assessment, this site will not be considered further for this consent.	

[21] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010051/EN010051-002404-Teesside%20A.%20NMC%20Application.%20HRA%20-%20March%202020.pdf and https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010051/EN010051-002523-Dogger%20Bank%20Teesside%20A%20NMC%20Application%20HRA%20FINAL_.pdf

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
			Teesmouth and Cleveland Coast	northern shoveler, Eurasian teal, sanderling, red knot, great cormorant, common shelduck, common redshank, avocet, waterbird assemblage, little tern, Sandwich tern, common tern
			A review in relation to the export cable for Sofia for the Teesmouth and Cleveland Coast SPA was undertaken for the most recent non-material change for that project and this site will not be considered further in this review.	
Hornsea Project One	Offshore wind	Operating Consented 10/12/2014	Flamborough and Filey Coast	Gannet, kittiwake, guillemot, razorbill, puffin (assemblage feature)
			Flamborough and Filey Coast SPA was assessed as a pSPA in the project HRA22, and will not be considered further in this review.	
			Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
			Northumberland Marine	Puffin
			Coquet Island	Puffin (assemblage feature)
			As the export cable has been installed and is operating for this consent, no further interactions are considered likely to take place in relation that aspect of the project, and as such it is not considered further in this review.	
Hornsea Project Two	Offshore wind	Under construction	Flamborough and Filey Coast	Gannet, kittiwake, guillemot, razorbill, puffin (assemblage feature)
			Flamborough and Filey Coast SPA was assessed as a pSPA in the project HRA23, and will not be considered further in this review.	

[22] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010033/EN010033-002059-Hornsea%20Offshore%20Wind%20Farm%20Final%20EA%20including%20HRA%20TA%20and%20AIUGI.pdf

[23] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010053/EN010053-002079-Habitats%20Regulation%20Assessment

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
		Consented 10/12/2014	Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
			The original HRA for the project concluded that the project would not prevent the future designation of the Greater Wash pSPA, and also noted that "NE recommended that the potential impacts should be considered in a draft HRA to 'future proof' against the risk of any permission being reviewed after the SPA has been classified." While the site's features and conservation objectives were not available to make a complete HRA assessment the Secretary of State considered the applicant's shadow appropriate assessment for the site, representations by NE and RSPB, and conclusions of the examining authority and was content the project would not hinder the designation of the SPA. For these reasons the Greater Wash SPA is not considered further in relation to Hornsea Project Two.	
			Northumberland Marine	Puffin
			Coquet Island	Puffin (assemblage feature)
			Farne Islands	Puffin (assemblage feature)
Triton Knoll	Offshore wind	Under construction Consented 11/07/2013	Flamborough and Filey Coast SPA	Gannet, kittiwake
			A review of consents was effectively carried out for Triton Knoll in 2018 as part of a non-material change. The Flamborough and Filey Coast pSPA was assessed and it was concluded that likely significant effects could be discounted[24]*.*	
			Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
			The Greater Wash SPA was assessed as part of the non-material change HRA noted above, and it was concluded that likely significant effects could be discounted.	

[24] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010005/EN010005-000905-HRA%20TRITON%20KNOLL%20OFFSHORE%20WIND%20FARM%20%E2%80%93%20NON%20MATERIAL%20CHANGE.pdf

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
			Northumberland Marine	Puffin
			Coquet Island	Puffin (assemblage feature)
Triton Knoll Electrical System	Onshore and offshore works for Triton Knoll connection	Under construction Consented 06/09/2016	Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
			The HRA for the Triton Knoll Electrical System[25] *indicated that consultation materials on the Greater Wash pSPA were not available at the time of drafting, but with representations from NE and the applicant, concluded that the project would not hinder the SPA from being designated. Further the SoCG between NE and the applicant indicated that significant effects on the site could be ruled out. The site/consent combination will not be considered further.*	
Race Bank	Offshore wind	Operating Consented 06/07/2012	Flamborough and Filey Coast	Gannet, guillemot, razorbill, puffin (assemblage feature)
			Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
			Northumberland Marine	Puffin
			Coquet Island	Puffin (assemblage feature)
Dudgeon	Offshore wind	Operating Consented 06/07/2012	Flamborough and Filey Coast	Gannet, guillemot, razorbill, puffin (assemblage feature)
			Greater Wash	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull
East Anglia One	Offshore wind	Operating	Flamborough and Filey Coast	Gannet, kittiwake, puffin (assemblage feature)
			Hamford water	Migratory waterbird species

[25] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020019/EN020019-004775-Habitats%20Regulations%20Assessment.pdf

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
		Consented 17/06/2014. Subsequent decision on a non-material change made 29/03/16	Outer Thames Estuary	Common tern
			Hamford Water and the extension to the Outer Thames Estuary were considered as pSPAs in a 2016 HRA for a non-material change[26]*. Flamborough and Filey Coast pSPA was considered in original 2014 HRA*[27] *and will not be considered further.*	
			Greater Wash	Sandwich tern
East Anglia Three	Offshore wind	Consented 07/08/2017 Subsequent decision on a non-material change made 06/06/19	Flamborough and Filey Coast	Gannet, kittiwake, puffin (assemblage feature)
			Outer Thames Estuary extension	Common tern
			Outer Thames and Flamborough and Filey Coast were both assessed as pSPAs in the HRA for the project[28]*. Furthermore, in response to a non-material change in June 2019*[29]*, it was concluded that, "Following the consent of the 2017 Order, the Outer Thames Estuary Special Protection Area ("SPA") and Flamborough and Filey Coast SPA have been designated as SPAs. As both of these sites were assessed as potential SPAs in the Application for the 2017 Order, and because the conservation objectives remain unchanged, further assessment of these sites are not required for this Application."*	
			Greater Wash	Sandwich tern

[26] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010025/EN010025-000045-East%20Anglia%20One%20Change%20Request%20-%20HRA.pdf
[27] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010025/EN010025-000008-Habitat%20Regulations%20Assessment%20(HRA).pdf
[28] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-002381-East%20Anglia%20THREE%20Habitats%20Regulations%20Assessment%20Dated%207%20August%202017.pdf
[29] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010056/EN010056-002452-East%20Anglia%20THREE%20OFW%20-%20NMC%20Decision%20Letter.pdf

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
Galloper	Offshore wind	Operating Consented 24/05/2013	Flamborough and Filey Coast	Gannet
			The site was reclassified after the Galloper offshore wind farm was consented, however, the gannet feature, (at the time an assemblage feature of Flamborough Head and Bempton Cliffs SPA), was assessed as part of the HRA for the project[30]*.*	
			Outer Thames Estuary extension	Common tern
Greater Gabbard	Offshore wind	Operating Consented 20/02/2007	Flamborough and Filey Coast	Gannet
			Outer Thames Estuary extension	Common tern
			Note that Greater Gabbard was subject to a previous review of consents completed in 2013 for the 2010 classification of the Outer Thames Estuary SPA. Only those features of the 2017 re-classification are relevant to Greater Gabbard.	
Walney Extension	Offshore wind	Operating Consented 07/11/2014	Skomer, Skokholm and the Seas off Pembrokeshire	Manx shearwater
			Liverpool Bay	Red-throated diver, common tern, little gull, little tern, cormorant, red-breasted merganser
			Morecambe Bay and Duddon Estuary	Sandwich tern, common tern, black-tailed godwit, whooper swan, little egret, Mediterranean gull, herring gull, lesser black-backed gull and ruff
			Irish Sea Front	Manx shearwater

[30] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010003/EN010003-000012-Galloper%20Offshore%20Wind%20Farm_Appropriate%20Assessment.pdf

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
Projects located in territorial waters				
Walney 1	Offshore wind	Operating Consented 07/11/2007 Completed 30/05/2011	The Dee Estuary extension	Common tern and Sandwich tern, and wintering teal, grey plover, dunlin, black-tailed godwit and curlew
			Copeland Islands	Manx shearwater
Walney 2	Offshore wind	Operating Consented 07/11/2007 Completed 06/04/2012	The Dee Estuary extension	Common tern and Sandwich tern, and wintering teal, grey plover, dunlin, black-tailed godwit and curlew
			Copeland Islands	Manx shearwater
West of Duddon Sands	Offshore wind	Operating Consented 04/09/2008 Completed 16/01/2014	The Dee Estuary extension	Common tern and Sandwich tern, and wintering teal, grey plover, dunlin, black-tailed godwit and curlew
			Copeland Islands	Manx shearwater
			Liverpool Bay	Red-throated diver, common scoter
			The Liverpool Bay pSPA (as classified in 2010) was considered in the HRA for West of Duddon Sands, for which there was a conclusion of no likely significant effect. In view of the project's location in territorial waters and completion date, it will not be reviewed for the 2017 extension to Liverpool Bay SPA.	
Ormonde	Offshore wind	Operating Consented 04/09/2008	The Dee Estuary extension	Common tern and Sandwich tern, and wintering teal, grey plover, dunlin, black-tailed godwit and curlew
			Copeland Islands	Manx shearwater

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
		Completed 22/02/2012		
Gwynt y Môr	Offshore wind	Operating Consented 03/12/2008 Completed 30/08/2013	The Dee Estuary extension	Common tern and Sandwich tern, and wintering teal, grey plover, dunlin, black-tailed godwit and curlew
			Mersey Narrows and North Wirral Foreshore	Common tern, bar-tailed godwit, knot, little gull, cormorant
			Copeland Islands	Manx shearwater
			Liverpool Bay	Red-throated diver, common scoter
			In view of the relative consent, first energy generation and site classification dates for this site/consent combination, only the original 2010 Liverpool Bay SPA classification is considered to be relevant. This site was considered as a pSPA in the HRA for Gwynt y Môr, however, in view of overwhelming evidence to support the displacement of divers beyond the footprint of the wind farm, which was not assessed in the former HRA of the pSPA, the site will be reconsidered for this consent in the review.	
Burbo Bank Extension	Offshore wind	Operating Consented 26/09/2014 Completed 27/04/2017	Aberdaron Coast and Bardsey Island	Manx shearwater
			Grassholm	Gannet
			Skomer, Skokholm and the Seas off Pembrokeshire	Manx shearwater
			It was noted in the HRA for Burbo Bank[31] *that Skokholm and Skomer SPA, Aberdaron Coast and Bardsey Island SPA and Grassholm SPA were proposed extensions (2014 extensions), but they were screened out of the process as, "there was no indication from any of the parties that an adverse effect on the revised site's integrity is possible". Note the later 2017 extension of Skomer,*	

[31] https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010026/EN010026-000018-Secretary%20of%20State%20for%20Energy%20and%20Climate%20Change's%20HRA%20report.pdf

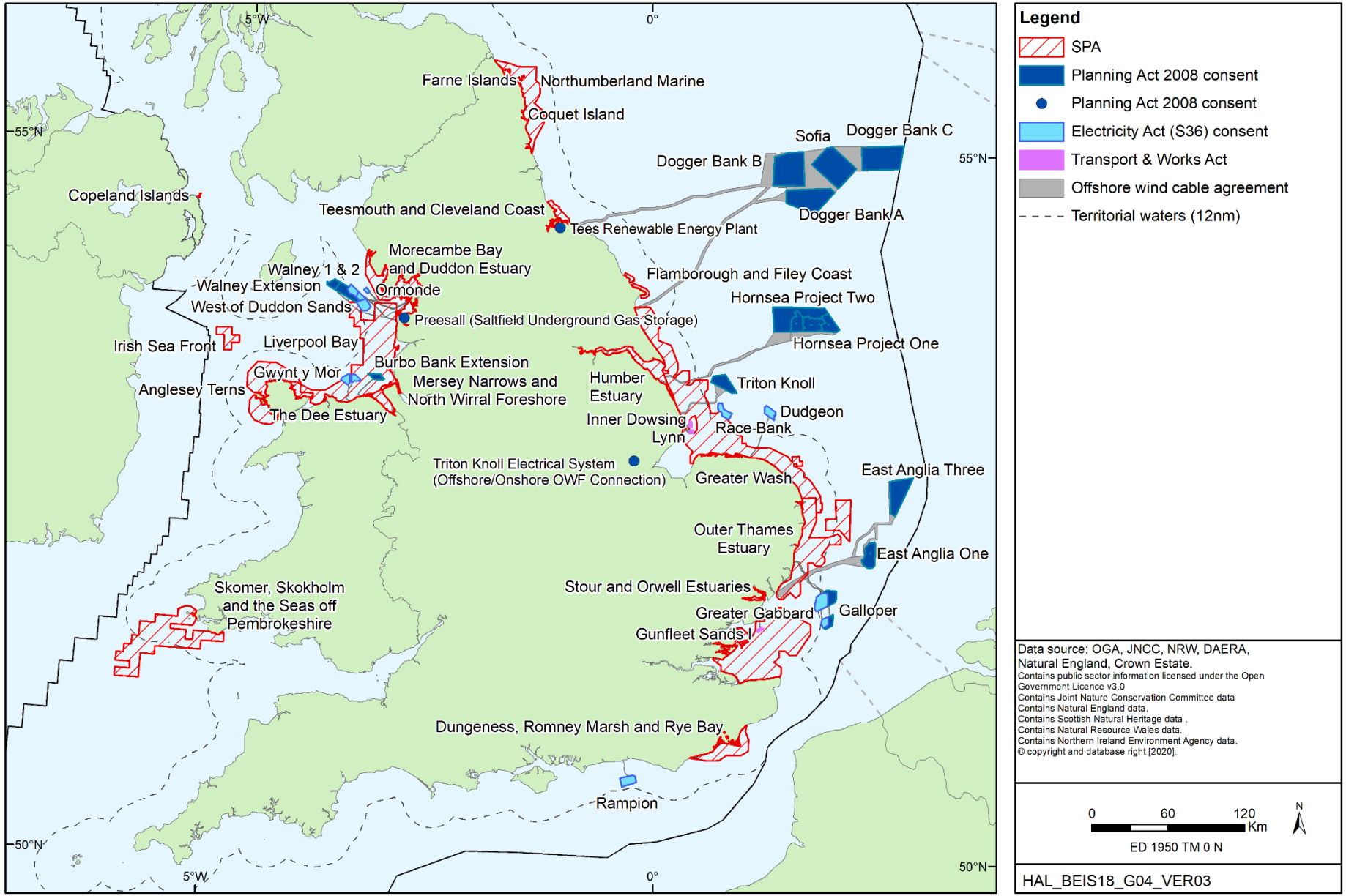
Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
			Skokholm and the Seas off Pembrokeshire was not considered in the project HRA and is therefore relevant to this review.	
			Morecambe Bay and Duddon Estuary SPA	Sandwich tern, black-tailed godwit, whooper swan, little egret, Mediterranean gull, herring gull, lesser black-backed gull and ruff
			Anglesey Terns / Morwenoliaid Ynys Môn	Sandwich tern
Rampion	Offshore wind	Operating Consented 16/07/2014 Completed 30/11/2018	Dungeness, Romney Marsh and Rye Bay	Sandwich tern
			Flamborough and Filey Coast	Gannet
			The Flamborough and Filey Coast pSPA was assessed in the HRA for Rampion[32]*, in which the additional features of the site were assessed (guillemot and razorbill), noting that the gannet feature was assessed as part of the Flamborough Head and Bempton Cliffs SPA and that an adverse effect was not identified for the site. In view of this former consideration and conclusion, Flamborough and Filey Coast SPA will not be considered again in this review.*	
Gunfleet Sands I	Offshore wind	Operating Consented 01/03/2004 Completed 24/07/2009	Stour and Orwell Estuaries site extension	Migratory waterbird species
Lynn	Offshore wind	Operating Consented 14/08/2004	Humber Estuary	Migratory waterbird species

[32] https://webarchive.nationalarchives.gov.uk/20190724090624/https://infrastructure.planninginspectorate.gov.uk/document/EN010032-001702

Consent	Type	Status	Relevant conservation sites (see notes as indicated)	Species relevant for inclusion
		Completed 15/03/2008		
Inner Dowsing	Offshore wind	Operating Consented 23/09/2003 Completed 20/04/2008	Humber Estuary	Migratory waterbird species
London Array	Offshore wind	Operating Consented 04/09/2008 Completed 30/10/2014	Outer Thames Estuary SPA	Red-throated diver
			The London Array wind farm was subject to a review of consents for the Outer Thames Estuary in 2013[33] and will not be reviewed again for this site. The wind farm will not be considered in relation to the extension to the Outer Thames Estuary SPA in 2017 as it is located in territorial waters and was completed prior to its date of classification.	
Projects located onshore				
Tees Renewable Energy Plant	Biomass	Under construction Consented 09/03/2010	Teesmouth and Cleveland Coast	Avocet, common tern
Preesall Saltfield Underground Gas Storage	Underground Gas Storage Facility	Consented Consented 17/07/2015	Liverpool Bay	Common tern, little tern, little gull
			Morecambe Bay and Duddon Estuary	Sandwich tern, black-tailed godwit, whooper swan, little egret, Mediterranean gull, lesser black-backed gull and ruff

[33] https://webarchive.nationalarchives.gov.uk/20190701105334/https://itportal.beis.gov.uk/EIP/pages/projects/LondonAAssessmentThames.pdf

Figure 2: Projects and relevant sites to be the subject of the LSE test



3 Likely Significant Effects Test

Regulations 63 and 28 of the Habitats Regulations and Offshore Habitats Regulations respectively set out the responsibility of the competent authority (in this case the Secretary of State for Busines Energy and Industrial Strategy) to undertake an AA of, "…*any consent, permission or other authorisation for, a plan or project which, (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) not directly connected with or necessary to the management of that site.*"

The Screening Assessment is the first stage of the HRA. The purpose of the Screening Assessment is to determine whether a project is likely to have a significant effect on the interest features of a site alone or in-combination with other plans or projects.

A likely significant effect (LSE) is any effect that may be reasonably predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the European site was designated but excluding trivial or inconsequential effects.

In order to determine the designated sites and associated qualifying features on which a project alone and in-combination with other plans or projects could have an LSE, an LSE screening assessment is undertaken. An LSE screening assessment is a high level coarse filter used to identify all the sites and qualifying features that could be affected by a project and considers whether it can be objectively concluded that these effects will not be significant.

At its highest level, the screening assessment has four steps:

- Determining whether the project or plan is directly connected with or necessary to the management of the site,
- Describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site,
- Identifying the potential effects on the Natura 2000 site,
- Assessing the significance of any effects on the Natura 2000 site.

3.1 Determining whether the project or plan is directly connected with or necessary to the management of the site

This initial step aims to identify whether the project or plan is related to the conservation management of the Natura 2000 site. If an activity is directly connected with and necessary for fulfilling the site's conservation objectives, it is exempted from the requirement for an assessment.

For the purposes of this assessment it has been determined that none of the projects that are subject to this review are directly connected with or necessary to the management of a Natura 2000 site.

A complete list of all the projects identified that had potential to be subject to this review of consents is presented in Figure 1 and are listed in Appendix 1. Projects for which it has been determined that their consent is subject to review are presented in Table 1. It is not possible, nor necessary, to describe each individual project that is subject to this review. Detailed descriptions have been presented in each of projects' applications and subsequent variations. These should be referred to, if required, and are cross referenced in this report as appropriate.

3.2 Identifying the potential effects on the Natura 2000 site

The potential effects on the features of the SPAs from the consented projects may be direct or indirect and could arise during the construction (for those projects that have not completed construction), operational and decommissioning phases of each project.

For those projects identified as relevant for this review, the following impacts have been identified as having potential to cause an effect during each phase of each project:

Construction (only applicable to projects that have not completed construction):

- Disturbance and displacement,
- Indirect effects on prey or habitats (including for example from brine discharge or the deposition of pollutants).

Operation

- Disturbance and displacement,
- Indirect effects on prey or habitats (e.g. by alteration of water quality from discharges),
- Mortality as a result of direct collision (e.g. with turbines, overhead cabling),
- Barrier effects caused by the physical presence a project (in particular onshore and offshore wind turbines and ancillary structures).

Decommissioning

- Disturbance and displacement,
- Indirect effects on prey or habitats.

3.3 Assessing the significance of any effects on the Natura 2000 site: approach to screening for likely significant effects for relevant projects

In order to determine whether there is potential for an LSE from each of the relevant projects identified in Section 2.4 (also see Figure 2), on any of the related qualifying features for the sites screened in for each project, a high level approach has been undertaken based on criteria previously used and accepted (e.g. in offshore wind farm applications). It has been

recognised that there is potential for an in-combination impact to arise that could lead to an LSE when the project alone may not.

The criteria used for this Screening Assessment are:

- If any part of the project overlaps any part of an SPA it is determined that there is potential for an LSE on the site.
- If any part of the project lies within 4km (Welcker *et al.* 2016, Dierschke *et al.* 2016) of an SPA boundary or within 10km (Vilela *et al.* 2020) of an SPA for which diving birds (e.g. red-throated diver) are a qualifying feature, it is determined that there is potential for an LSE on the site.
- If the distance between an offshore wind farm and a site lies within the mean maximum foraging range, plus one standard deviation, of the qualifying seabird feature there is potential for a direct interaction during the breeding season. Consequently, for the purposes of this assessment, an LSE is concluded on all qualifying breeding seabird features within the mean maximum foraging range plus one standard deviation (as published in Woodward *et al*. 2019) of a relevant offshore wind farm.
- Non-seabird species may pass through an offshore wind farm area during passage. Although to date the vast majority of projects have concluded no LSE from the Projects alone, the in-combination impacts may be greater. Where there is evidence that a qualifying species has a migratory route through the relevant wind farm it has been determined that there is potential for an LSE for the project alone and in-combination. The migratory routes have been identified using the SOSS Migration Assessment Tool (Wright & Austin 2012, Wright *et al.* 2012).

While the above criteria provide a coarse initial filter to determine LSE, these are qualified with other relevant information as appropriate in Section 4, such as the basis of information on which sites were extended that reflect individual species use of a site, and previous HRAs for any project, including for non-material changes, where new site classifications were considered as pSPAs at the time of consenting and have therefore been subject to previous LSE tests. A more detailed consideration of each relevant site and project identified is provided in Section 4, along with a conclusion indicating the remaining sites and consents for which an LSE could not be discounted.

4 Likely Significant Effects alone assessment

The following section provides a summary assessment of LSE for those consents and sites identified in Section 2, in relation to those screening criteria noted in Section 3. All the site/project combinations are considered in Section 5, irrespective of the conclusion of LSE noted below.

For clarity, the approach to selecting the relevant SPAs and projects to consider in this review is summarised below:

- For projects located onshore and in the territorial waters of England and Wales: SPA and project combinations were identified where a SPA was classified after project consent was granted and in advance of project completion.
- For projects located in offshore waters (i.e. all or in part seaward of 12nm from the coast), SPA and project combinations were identified where a SPA was classified after project consent; there is no limit to the ability to review such consents on the basis of project completion date.
- For all projects, the relative location of SPAs in the context of the interest features for which they were classified was used to narrow the site/project combinations to consider in this review, and was based on the potential for an interaction between interest features and projects (e.g. foraging ranges and migratory pathways). The full list of SPA/project combinations initially identified is provided in Appendix 1.

The following section provides more detail on the aspects of each SPA relevant to the review, for example only some qualifying interests may be relevant, and also identifies factors where an LSE can be discounted at this stage, for example, through further consideration of the potential for interaction between the sites and projects, and other information such as any post-consents assessment which has effectively already reviewed a consent in relation to the most recent suite of SPAs.

The foraging ranges used to identify an interaction, specifically with offshore wind farms, and consider the potential for LSE are based on those in Woodward *et al.* (2019). These have generally resulted in either a modest increase or decrease in range compared to those previously presented in Thaxter *et al.* (2012), with the exception of a few species including Manx shearwater, for which the mean maximum foraging range increased substantially (1,346.8 ±1,018.7km).

While the putative mean maximum foraging range of Manx shearwater could theoretically result in individuals from very distant SPAs (including in a transboundary context, see Section 8) interacting with relevant projects, evidence suggests substantial variation in trip distance and range. For example, trips may vary by life stage (Fayet *et al.* 2015), and be substantially less during the chick-rearing period compared to the incubation period (Dean *et al.* 2015; however, note regular far-ranging activity presented in Wischnewski *et al.* 2019). Tracks (Wischnewski *et al.* 2019, Fayet *et al.* 2015) and density distributions (Dean *et al.* 2013, 2015, Fayet *et al.* 2015, Waggitt *et al.* 2019) suggest that for UK and Irish colonies studied, longer trips were out over offshore waters of the North Atlantic, with higher levels of activity closer to colonies (note the ten-fold difference in mean (136.1±88.7) and mean maximum (1,346.8 ±

1,018.7) foraging range). On the basis of this evidence, it is considered that SPAs relevant to this review which have been designated for Manx shearwater which are located in Wales and Ireland are only relevant to projects in the Irish Sea/Bristol Channel.

During the preparation of this report, a number of SPAs in Scottish waters were classified (3rd December 2020). The only potential interaction is considered to relate to birds from the Outer Firth of Forth and St Andrews Bay Complex SPA for wind farms off the east coast of England. The site reflects areas used by inshore wintering waterfowl and little gull, and aggregations of seabirds including gannet, kittiwake and Manx shearwater. For Manx shearwater, it is noted that while large numbers use the site during the breeding season there are no nearby colonies, and these individuals reflect a mixture of breeding adults from distant colonies, sabbatical or pre-breeding age birds and possibly failed breeders. The gannet and kittiwake features of the site are related to colonies which are part of the existing Forth Islands SPA or St Abb's Head to Fast Castle SPA (not relevant to any consent on the basis of classification and consenting dates, or potential for interaction), and the wider site boundaries relate to the aggregations of these birds at sea, which reflect important marine foraging areas for these colonies. In view of the basis for the site selection and designation, and the distance from the site boundaries to the nearest relevant consent (235 km), an LSE for the site is not considered likely for the consents considered in this review.

4.1 Copeland Islands SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Walney 2	Operational	137 km	Manx shearwater	Displacement by offshore wind turbines.	✓
Walney 1	Operational	145 km	Manx shearwater	Displacement by offshore wind turbines.	✓
West of Duddon Sands	Operational	148 km	Manx shearwater	Displacement by offshore wind turbines.	✓
Ormonde	Operational	148 km	Manx shearwater	Displacement by offshore wind turbines.	✓
Gwynt y Môr	Operational	180 km	Manx shearwater	Displacement by offshore wind turbines.	✓

Qualifying features: breeding Manx shearwater *Puffinus puffinus* and breeding Arctic tern *Sterna paradisaea*

Conservation Objectives: https://www.daera-ni.gov.uk/publications/special-protection-area-copeland-islands

To maintain each feature in favourable condition. Component objectives are:
Manx Shearwater breeding population: No significant decrease in population against national trends, fledging success sufficient to maintain or enhance population
Arctic Tern breeding population: No significant decrease in population against national trends, fledging success sufficient to maintain or enhance population
Habitat extent: To maintain or enhance the area of natural and semi-natural habitats used or potentially usable by Feature bird species, (breeding areas 201.20ha) subject to natural processes; maintain the extent of main habitat components subject to natural processes

Site assessment: Manx shearwater associated with the Copeland Islands SPA is within the mean maximum foraging range (+1SD) of a number of relevant wind farms in the Irish Sea listed above. In view of the number of projects identified as relevant to this site (and other SPA/project combinations for this species, and connected sites such as the Irish Sea Front SPA, see below), and in keeping with the screening criteria set out in Section 3, it is concluded that LSE cannot be discounted at the screening stage for Copeland Islands SPA in relation to the above projects alone.

4.2 Skomer, Skokholm and the Seas off Pembrokeshire SPA

(formerly Skokholm and Skomer SPA)

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Burbo Bank Extension	Operational	229 km	Manx shearwater	Displacement by offshore wind turbines.	✓
Walney Extension	Operational	274 km	Manx shearwater	Displacement by offshore wind turbines.	✓

Qualifying features: breeding Manx shearwater *Puffinus puffinus*, storm petrel *Hydrobates pelagicus*, lesser black-backed gull *Larus fuscus*, Atlantic puffin *Fratercula arctica*

Conservation Objectives: https://naturalresources.wales/media/675733/skomer-skokholm-and-seas-off-pembs-pspa-draft-conservation-objectives-final.pdf

The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term: The breeding population of Manx shearwater should be stable or increasing with no measured decrease in numbers (based on a population count of 150,968), based on annual study plots.
The distribution of the population should be being maintained, or where appropriate increasing: The distribution of this species within the site should not be constrained by anthropogenic factors, including disturbance of nesting sites by the public and activities leading to possible loss of suitable nesting sites.
There should be sufficient habitat, of sufficient quality, to support the population in the long term: The breeding and foraging habitat of this species should be stable or increasing in terms of its area, and its quality should remain unaffected by anthropogenic factors.
Factors affecting the population or its habitat should be under appropriate control: Rafting birds should remain unaffected by boat use and other anthropogenic factors; appropriate codes of conduct must be followed by all visitors and craft surrounding the islands. Factors affecting the species within the site should be under control

Site assessment: The SPA was first classified in 1982 as the Skokholm and Skomer SPA and was subsequently extended in 2014. The site was reclassified with a marine extension in January 2017 for species included in the original citation, Manx shearwater and Atlantic puffin, and the site renamed to Skomer, Skokholm and the Seas off Pembrokeshire SPA. It is this latter extension to the site (and species relevant to this extension) which is relevant to the review of consents. Rather than any additional species of concern being identified projects (as both of those relevant to the 2017 extension were already features of the site), it is the updated site coverage and related citation information which is of relevance. The Walney extension and Burbo Bank extension offshore wind farms were consented prior to the 2017 classification, but are located in offshore waters or were not completed prior to classification respectively. Their location within the mean maximum (+1SD) foraging range of Manx shearwater (and puffin for Burbo Bank) means that an LSE cannot be discounted alone for these projects in relation to the Skomer, Skokholm and the Seas off Pembrokeshire SPA.

4.3 Irish Sea Front SPA

Project	Status	Distance to site (km)	Relevant features	Potential source of effect	LSE?
Walney Extension	Operational	80 km	Manx shearwater	Displacement by offshore wind turbines.	✓

Qualifying features: breeding Manx shearwater *Puffinus puffinus*

Conservation Objectives: https://hub.jncc.gov.uk/assets/0032da71-db02-44b5-b4e1-022d77ef7ee3

To avoid significant deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, subject to natural change, thus ensuring that the integrity of the site is maintained in the long term and makes an appropriate contribution to achieving the aims of the Birds Directive for each of the qualifying species.

This contribution would be achieved through delivering the following objectives for each of the sites qualifying features:

Avoid significant mortality, injury and disturbance of the qualifying features, so that the distribution of the species and ability to use the site are maintained in the long-term;
Maintain the habitats and food resources of the qualifying features in favourable condition.
Ensure access to the site from linked breeding colonies

Summary: The site is located ~36km to the northwest of Anglesey, and is the third largest offshore aggregation of Manx shearwater in the UK (Kober *et al.* 2012), being a foraging location for a large number of breeding birds from colonies likely in Wales, Northern Ireland and Devon.

Summary assessment: Walney Extension, which is located in offshore waters, is within the mean maximum foraging range (+1SD) for Manx shearwater of the Irish Sea Front SPA. In keeping with the criteria set out in Section 3, an LSE cannot be excluded alone for the Manx shearwater feature of the Irish Sea Front SPA in relation to the Walney Extension wind farm. It is noted that the Manx shearwater feature of other Irish Sea colonies was considered in the HRA for the project (Aberdaron Coast and Bardsey Island SPA, Copeland Islands SPA and, Skokholm and Skomer SPA), and as the Irish Sea Front SPA has been recognised for offshore aggregations associated with such colonies, indirect effects may have already been considered, however, further assessment is required.

4.4 Dee Estuary (extension) SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Walney 2	Operational	75 km	Wintering waterbirds	Displacement/collision risk associated with migratory species (teal, grey plover, dunlin, black-tailed godwit and curlew)	✓
Walney 1	Operational	72 km	Wintering waterbirds	Displacement/collision risk associated with migratory species (teal, grey plover, dunlin, black-tailed godwit and curlew)	✓

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
West of Duddon Sands	Operational	63 km	Wintering waterbirds	Displacement/collision risk associated with migratory species (teal, grey plover, dunlin, black-tailed godwit and curlew)	✓
Ormonde	Operational	77 km	Wintering waterbirds	Displacement/collision risk associated with migratory species (teal, grey plover, dunlin, black-tailed godwit and curlew)	✓
Gwynt y Môr	Operational	12 km	Sandwich tern, common tern, wintering waterbirds	Displacement/collision risk associated with migratory species (teal, grey plover, dunlin, black-tailed godwit and curlew) and breeding common and Sandwich terns	✓

Qualifying features: northern pintail *Anas acuta*, Eurasian teal *Anas crecca*, dunlin *Calidris alpina*, red knot *Calidris canutus*, Eurasian oystercatcher *Haematopus ostralegus*, bar-tailed godwit *Limosa lapponica*, black-tailed godwit *Limosa limosa islandica*, Eurasian curlew *Numenius arquata*, grey plover *Pluvialis squatarola*, little tern *Sternula albifrons*, common tern *Sterna hirundo*, Sandwich tern *Thalasseus sandvicensis*, common shelduck *Tadorna tadorna*, common redshank *Tringa totanus*, waterbird assemblage

Conservation Objectives: http://publications.naturalengland.org.uk/file/5008539580104704

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Site assessment: The Dee Estuary was first classified in July 1985, and the boundaries and site features were revised in December 2009. It is the latter revision which is relevant to this review of consents, and therefore only those species subject to that revision are considered in this assessment. The 2009 classification included the addition of breeding little tern, common tern and Sandwich tern, and wintering teal, grey plover, dunlin, black-tailed godwit and curlew.

Gwynt y Môr is within the mean maximum foraging range of the common and Sandwich tern, and an LSE for the operational term of these projects has not been ruled out. There is the potential for interaction with all of the above identified projects with the wintering species added in the 2009 classification, and an LSE has not been discounted for these.

4.5 Liverpool Bay SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Walney Extension	Operational	<1 km	Red-throated diver, common tern, little tern, little gull, cormorant, red-breasted merganser	Displacement/collision risk from operating wind turbines, disturbance from maintenance vessels	✓
Gwynt y Môr	Operational	Inside	Red-throated diver	Displacement from operating wind turbines, disturbance from maintenance vessels	✓
Preesall Saltfield Underground Gas Storage	Consented	1 km	Red-throated diver, common tern, little tern, little gull, cormorant, red-breasted merganser	Discharges of saline water, movements of vessels associated with outfall construction	✓

Qualifying features: red-throated diver *Gavia stellata*, little gull *Hydrocoloeus minutus* (non-breeding), common scoter *Melanitta nigra*, little tern *Sternula albifrons*, common tern *Sterna hirundo*

Conservation Objectives: http://publications.naturalengland.org.uk/file/6428729689767936

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Site assessment: The site was originally classified in 2010 for red-throated diver and common scoter, and was subsequently extended in 2017 along with the addition of little tern, common tern and little gull, and assemblage features of cormorant and red-breasted merganser. It is the 2017 extension of the site which is of relevance to those projects listed above which are considered to be relevant to this review for Liverpool Bay SPA.

For Walney Extension, using the screening criteria set out in Section 3, common tern, little tern, little gull, cormorant and red-breasted merganser are of relevance, which may be considered to be of moderate risk of collision and moderate/low to very low risk of displacement respectively (e.g. Furness *et al.* 2013, Bradbury *et al.* 2014), with red-throated diver considered to be highly sensitive to displacement (see Section 3). An LSE cannot therefore be discounted for these features of Liverpool Bay SPA for Walney extension. There is similarly the potential for interaction with marine works associated with the Preesall Saltfield Underground Gas Storage project, and an LSE for the site in relation to this consent has similarly not been discounted.

In view of the consent and first energy generation of Gwynt y Môr and the site classification dates for Liverpool Bay SPA, only the 2010 classification is considered to be relevant to this review. This site was considered as a pSPA in the HRA for Gwynt y Môr, however, in view of evidence on the displacement of divers beyond the footprint of the wind farm, which was not assessed in the former HRA of the Liverpool Bay pSPA, LSE cannot be discounted.

4.6 Mersey Narrows and North Wirral Foreshore SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Gwynt y Môr	Operational	17 km	Breeding/non-breeding common tern. Wintering bar-tailed godwit and knot. Waterbird assemblage.	Displacement/collision risk from operating wind turbines	✓
Qualifying features: common tern *Sterna hirundo*, bar-tailed godwit *Limosa lapponica*, knot *Calidris canutus*, little gull *Hydrocoloeus minutus*, waterbird assemblage **Conservation Objectives:** https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9020287&SiteName=mersey%20narrows&countyCode=&responsiblePerson=&HasCA=1&NumMarineSeasonality=5&SiteNameDisplay=Mersey%20Narrows%20and%20North%20Wirral%20Foreshore%20SPA Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site					
Site assessment: The site was classified in 2013 for waterbird species and breeding/non-breeding common tern. Bar-tailed godwit and knot are both considered to be relevant on the basis of their potential migratory routes, and common tern is within mean maximum foraging range (+1SD). All components of the wintering assemblage are also considered to be relevant. As the site/project combination fulfils the criteria set out in Section 3, it is not considered that LSE can be discounted at this stage for the features of Mersey Narrows and Wirral Foreshore SPA in relation to Gwynt y Môr.					

4.7 Anglesey Terns SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Burbo Bank Extension	Operational	47 km	Sandwich tern	Displacement/collision risk from operating wind turbines, disturbance from maintenance vessels	✓
Qualifying features: breeding common tern *Sterna hirundo*, Arctic tern *Sterna paradisea*, roseate tern *Sterna dougalli*, Sandwich tern *Thalasseus sandvicensis* **Conservation Objectives:** https://naturalresources.wales/guidance-and-advice/environmental-topics/consultations/our-own-consultations-closed/closed-2016/new-marine-sac/anglesey-terns/?lang=en					

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Site assessment: The site was originally classified in 1992 as Ynys Feurig, Cemlyn Bay and The Skerries SPA, and was extended in January 2017 to cover the foraging areas of tern species associated with the SPA. The tern colonies are located on Ynys Feurig, a series of small islets off the west coast of Anglesey (mostly Arctic terns and some common terns), The Skerries, a group of sparsely vegetated rocky islets, lying ~3km off the north western coast of Anglesey (mostly Arctic terns and some common terns), and, Cemlyn Bay on the north coast of Anglesey (mainly Sandwich terns with some common and Arctic terns). Burbo bank extension is located in territorial waters and was consented prior to the classification of the Anglesey Terns SPA but was not completed before the site was classified. Of the qualifying tern species, only Sandwich tern fulfils the screening criteria set out in Section 3, and an LSE cannot therefore be discounted at this stage for Burbo Bank extension in relation to this feature of the SPA.					

4.8 Morecambe Bay and Duddon Estuary SPA

(formerly Morecambe Bay SPA and Duddon Estuary SPA)

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Burbo Bank Extension	Operational	43 km	Lesser black-backed gull, migratory waterbird species (black-tailed godwit, whooper swan, little egret, ruff), Sandwich tern	Displacement/collision risk from operating wind turbines	✓
Walney Extension	Operational	20 km	Lesser black-backed gull, Mediterranean gull, migratory waterbird species (black-tailed godwit, whooper swan, little egret, ruff), Sandwich tern, common tern	Displacement/collision risk from operating wind turbines	✓
Preesall Saltfield Underground Gas Storage	Consented	<1 km	Lesser black-backed gull, Mediterranean gull, migratory waterbird species (black-tailed godwit, whooper swan, little egret, ruff), Sandwich tern, common tern, little tern	Discharges of saline water, movements of vessels associated with outfall construction	✓
Qualifying features: bar-tailed godwit *Limosa lapponica*, black-tailed godwit *Limosa limosa islandica*, common tern *Sterna hirundo*, curlew *Numenius arquata*, dunlin *Calidris alpina alpina*, golden plover *Pluvialis apricaria*, grey plover *Pluvialis squatarola*, herring gull *Larus argentatus*, knot *Calidris canutus*, lesser black-backed gull *Larus fuscus*, little egret *Egretta garzetta*, little tern *Sternula albifrons*, Mediterranean gull *Ichthyaetus melanocephalus*, oystercatcher *Haematopus ostralegus*, pink-footed goose *Anser brachyrhynchus*, pintail *Anas acuta*, redshank *Tringa totanus*, ringed plover *Charadrius hiaticula*, ruff *Calidris pugnax*, sanderling *Calidris alba*, Sandwich tern *Thalasseus sandvicensis*, shelduck *Tadorna tadorna*, turnstone *Arenaria interpres*, whooper swan *Cygnus cygnus*, waterbird assemblage, seabird assemblage					

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Conservation Objectives: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9020326&SiteName=morecambe&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=&NumMarineSeasonality=&SiteNameDisplay=Morecambe%20Bay%20and%20Duddon%20Estuary%20SPA&HasCA=1&NumMarineSeasonality=25&SiteNameDisplay=Morecambe%20Bay%20and%20Duddon%20Estuary%20SPA Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site					
Site assessment: The Morecambe Bay and Duddon Estuary SPA is an amalgamation of two previously separate SPAs. The amalgamated site was classified in February 2017 and it is this latter classification which is the subject of this review. The re-classification included the addition of an extension approximately 7km north along the Cumbrian coast to afford protection to foraging tern species, and also the following additional qualifying interests; non-breeding black-tailed godwit, whooper swan, little egret, Mediterranean gull, lesser black-backed gull and ruff. Following the screening criteria noted in Section 3, and the potential interaction of these updated wintering species, non-breeding lesser black-backed and Mediterranean gull, breeding Sandwich tern and common tern (Walney extension only)with the projects noted above, an LSE cannot be discounted for this site.					

4.9 Teesmouth and Cleveland Coast SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Tees Renewable Energy Plant	Under construction	<1 km	Avocet, common tern	None identified	×
Qualifying features: northern shoveler *Anas clypeata*, Eurasian teal *Anas crecca*, sanderling *Calidris alba*, red knot *Calidris canutus*, great cormorant *Phalacrocorax carbo*, little tern *Sternula albifrons*, Sandwich tern *Thalasseus sandvicensis*, common tern *Sterna hirundo*, common shelduck *Tadorna tadorna,* common redshank *Tringa totanus*, avocet *Recurvirostra avosetta,* waterbird assemblage **Conservation Objectives:** http://publications.naturalengland.org.uk/file/4849489020190720 Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; The extent and distribution of the habitats of the qualifying features The structure and function of the habitats of the qualifying features The supporting processes on which the habitats of the qualifying features rely The population of each of the qualifying features, and, The distribution of the qualifying features within the site.					

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Site assessment: The site was classified in August 1995, subsequently extended in March 2000, and most recently was subject to terrestrial and marine extensions, with the addition of avocet, ruff and common tern in January 2020. A conclusion of no LSE was concluded for this development at the time of its consent in 2010 for the former extent of the Teesmouth and Cleveland Coast SPA. Only the additional species classified in 2020 are considered in this review. The site has been extended inland in several areas, including the waters of the River Tees Mouth which are immediately adjacent to the site of the Tees Renewable Energy Plant. Of relevance is the use of the Tees by common terns between Seaton Channel and Tees Barrage[34], which are associated with the colony at RSPB Salthome. While extensive use of the Tees has been noted for this species, the Tees Renewable Energy Plant is located onshore in an industrial area at Teesport, and interactions with the tern feature of the site in not considered to be likely. The avocets associated with the site are mainly found on the saline lagoon south of Greatham Creek, with smaller numbers on Greenabella Marsh, and ruff in shallow waterbodies across the site and in particular on the pools at RSPB Saltholme. These areas are some distance from the project, and interaction with these species is not considered to be likely. An LSE for common tern, avocet and ruff has not been identified for the Tees Renewable Energy Plant.					

4.10 Flamborough and Filey Coast SPA

(formerly Flamborough Head and Bempton Cliffs SPA)

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Dudgeon	Operational	126 km	Northern gannet, guillemot, razorbill, puffin (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Race Bank	Operational	100 km	Northern gannet, guillemot, razorbill, puffin (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Greater Gabbard	Operational	270 km	Northern gannet	Displacement/collision risk from operating wind turbines	✓
Qualifying features: gannet *Morus bassanus*, guillemot *Uria aalge*, kittiwake *Rissa tridactyla*, razorbill *Alca torda*, Seabird assemblage **Conservation Objectives:** https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006101&SiteName=&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=&NumMarineSeasonality=&SiteNameDisplay=Flamborough%20and%20Filey%20Coast%20SPA&HasCA=1&NumMarineSeasonality=4&SiteNameDisplay=Flamborough%20and%20Filey%20Coast%20SPA					

[34] https://consult.defra.gov.uk/natural-england-marine/teesmouth-and-cleveland-coast-potential-sp/supporting_documents/Teesmouth%20and%20Cleveland%20Coast%20pSPA%20Departmental%20Brief.pdf

Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site
Site assessment: Flamborough Head and Bempton Cliffs SPA was classified in August 1998 and was extended in August 2018 to include the north cliffs of Filey and inshore waters to 2km. This extension also included the addition of gannet, guillemot and razorbill as qualifying features. It is the extension to this site which is considered to be relevant to this review. In view of the species being considered in this review, and the foraging ranges of these species, northern gannet, guillemot and razorbill are considered to be relevant (noting that kittiwake was part of the previous Flamborough Head and Bempton Cliffs SPA). Following the screening criteria noted in Section 3, it is considered that an LSE cannot be discounted for those projects listed above in relation to the Flamborough and Filey Coast SPA.

4.11 Greater Wash SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Dogger Bank A & B	Consented	A: 135 km B: 136 km Cable corridor partly within	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull	Disturbance from nearshore activities associated with export cable installation.	✓
Dudgeon	Operating	22 km	Sandwich tern	Displacement/collision risk from operating wind turbines	✓
Race Bank	Operating	Partly within the site	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull	Displacement/collision risk from operating wind turbines	✓
East Anglia One	Operating	45 km	Sandwich tern	Displacement/collision risk from operating wind turbines	✓
East Anglia Three	Consented	54 km	Sandwich tern	Displacement/collision risk from operating wind turbines	✓
Qualifying features: red-throated diver *Gavia stellata*, little gull *Hydrocoloeus minutus*, common scoter *Melanitta nigra,* little tern *Sternula albifrons*, common tern *Sterna hirundo*, Sandwich tern *Thalasseus sandvicensis* **Conservation Objectives:** http://publications.naturalengland.org.uk/file/4597105251581952					

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; The extent and distribution of the habitats of the qualifying features The structure and function of the habitats of the qualifying features The supporting processes on which the habitats of the qualifying features rely The population of each of the qualifying features, and, The distribution of the qualifying features within the site.					
Site assessment: The site was classified in 2018, with various areas within the site more or less important for each component species[35]. The array areas for Dogger Bank A & B are some distance from the site and so are not considered to be relevant to the site, however, the nearshore export cable corridor agreement area and landfall are located within the northernmost part of the site. In view of this overlap, an LSE cannot be discounted, in particular in relation to the red-throated diver feature. Race Bank is partly located within the Greater Wash SPA and therefore an LSE cannot be discounted in relation to all of the qualifying species for the site. East Anglia One, East Anglia Three and Dudgeon are within the mean maximum foraging range (+1SD) of the Sandwich tern feature of the site, and an LSE can therefore not be discounted for these site feature/project combinations.					

4.12 Outer Thames Estuary SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Galloper	Operating	10 km	Common tern	Displacement/collision risk from operating wind turbines	✓
Greater Gabbard	Operating	8.5 km	Common tern	Displacement/collision risk from operating wind turbines	✓
Qualifying features: common tern *Sterna hirundo*, little tern *Sternula albifrons*, red-throated diver *Gavia stellata* **Conservation Objectives:** https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9020309&SiteName=outer%20thames&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=&NumMarineSeasonality=&SiteNameDisplay=Outer%20Thames%20Estuary%20SPA&HasCA=1&NumMarineSeasonality=3&SiteNameDisplay=Outer%20Thames%20Estuary%20SPA Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features					

[35] https://consult.defra.gov.uk/natural-england-marine/greater-wash-potential-special-protection-area-com/supporting_documents/V9%20FINAL%20Greater%20Wash%20Departmental%20Brief%2017%20October%202016%20ready%20for%20consultation.pdf

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
the distribution of qualifying features within the site					
Site assessment: The site was first classified in August 2010 and subsequently extended in November 2017 to include common tern and little tern; it is the latter extension which is of relevance to this review. Galloper and Greater Gabbard offshore wind farms were consented prior to the classification of the Outer Thames Estuary SPA extension, and in view of the location of the projects in offshore waters, they are relevant to this site. Galloper and Greater Gabbard are located within the mean maximum foraging range (+1SD) for common tern, and an LSE cannot therefore not be discounted for this feature of the Outer Thames Estuary SPA in relation to these consents.					

4.13 Stour and Orwell Estuaries (extension) SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Gunfleet Sands I	Operating	21 km	Wintering waterbirds	Displacement/collision risk from operating wind turbines	✓
Qualifying features: avocet *Recurvirostra avosetta*, black-tailed godwit *Limosa limosa islandica*, dark-bellied brent goose *Branta bernicla bernicla*, dunlin *Calidris alpina alpina*, grey plover *Pluvialis squatarola*, knot *Calidris canutus*, pintail *Anas acuta*, redshank *Tringa totanus*, waterbird assemblage **Conservation Objectives:** https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9009121&SiteName=stour&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=&NumMarineSeasonality=&SiteNameDisplay=Stour%20and%20Orwell%20Estuaries%20SPA&HasCA=1&NumMarineSeasonality=8&SiteNameDisplay=Stour%20and%20Orwell%20Estuaries%20SPA Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site					
Site assessment: The site was classified on 13 July 1994. On 19 May 2005 the site underwent boundary extensions at Bathside Bay and part of Copperas Bay. These extensions to the SPA were added as compensation for loss of habitat as part of the Bathside Bay development. The following were added as qualifying features in 2005: avocet (breeding), knot (breeding), pintail (wintering) and waterbird assemblage, in addition to the areas of compensatory habitat associated with the proposed Bathside Bay port development. These species have the potential to interact with the Gunfleet Sands I wind farm on migration to the Stour and Orwell SPA (after Wright *et al.* 2012). Following the screening approach outlined in Section 3, an LSE on the site cannot be discounted.					

4.14 Humber Estuary SPA

(formerly the Humber Flats, Marshes and Coast SPA)

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Lynn	Operating	26 km	Wintering waterbirds	Displacement/collision risk from operating wind turbines	✓
Inner Dowsing	Operating	20 km	Wintering waterbirds	Displacement/collision risk from operating wind turbines	✓

Qualifying features: avocet *Recurvirostra avosetta*, bar-tailed godwit *Limosa lapponica*, bittern *Botaurus stellaris*, black-tailed godwit *Limosa limosa islandica*, dunlin *Calidris alpina alpina*, golden plover *Pluvialis apricaria*, hen harrier *Circus cyaneus*, knot *Calidris canutus*, little tern *Sternula albifrons*, marsh harrier *Circus aeruginosus*, redshank *Tringa totanus*, ruff *Calidris pugnax*, shelduck *Tadorna tadorna*, waterbird assemblage

Conservation Objectives:
https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006111&HasCA=1&NumMarineSeasonality=15&SiteNameDisplay=Humber%20Estuary%20SPA

Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the populations of each of the qualifying features
- the distribution of qualifying features within the site

Site assessment: The site was formerly named the Humber Flats, Marshes and Coast SPA, classified in July 1994, which was the first of two planned phases of classification for the Humber estuary. The second phase of designation was not taken forward, and instead the Humber Flats, Marshes and Coast SPA was subsumed into the wider Humber Estuary SPA, classified in August 2007. It is this latter extension which is of relevance to this review.

Citation information for the Humber Flats, Marshes and Coast SPA, indicate that the additional species now classified for the site are avocet (breeding and wintering), black-tailed godwit (passage and wintering), bittern (breeding; already classified as wintering), knot, dunlin and redshank (all passage), and ruff (on passage). These species have the potential to interact with the Lynn and Inner Dowsing wind farms on migration to the Humber Estuary SPA (after Wright *et al.* 2012). Following the screening approach outlined in Section 3, an LSE on the site cannot be discounted.

4.15 Dungeness, Romney Marsh and Rye Bay SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Rampion	Operating	45km	Sandwich tern	Displacement/collision risk from operating wind turbines	✓
Qualifying features: Non-breeding aquatic warbler *Acrocephalus paludicola*, Bewick's swan *Cygnus columbianus bewickii*, bittern *Botaurus stellaris*, golden plover *Pluvialis apricaria*, hen harrier *Circus cyaneus*, ruff *Calidris pugnax*, shoveler *Spatula clypeata*, Waterbird assemblage; breeding avocet Recurvirostra *avosetta*, common tern *Sterna hirundo*, little tern *Sternula albifrons*, marsh harrier *Circus aeruginosus*, Mediterranean gull *Ichthyaetus melanocephalus*, Sandwich tern *Thalasseus sandvicensis* Conservation Objectives: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9012091&SiteName=dungeness&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAArea=&NumMarineSeasonality=&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA&HasCA=1&NumMarineSeasonality=13&SiteNameDisplay=Dungeness,%20Romney%20Marsh%20and%20Rye%20Bay%20SPA Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site					
Site assessment: The original Dungeness to Pett Level SPA was classified on 2 August 1999 for common tern, little tern, Mediterranean gull, aquatic warbler, Bewick's swan and shoveler. The site was subsequently extended in March 2016 and renamed as Dungeness, Romney Marsh and Rye Bay SPA. The 2016 extension included a number of additional features (Marsh harrier, avocet, Sandwich tern, bittern, hen harrier, golden plover and ruff), and the addition of a waterbird assemblage. The site was again extended in 2017 for foraging terns (Sandwich tern, common tern, little tern). The Rampion wind farm was consented prior to the 2016 and 2017 classifications of the site and was not completed prior to either of these classification dates. An LSE cannot therefore be discounted for the features noted above in relation to the two classifications either due to the potential for migratory route interactions or that the wind farm is within foraging range of a relevant species (Sandwich tern only).					

4.16 Coquet Island SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Dogger Bank A & B	Consented	210 km 196 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓
Dogger Bank C	Consented	263 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Sofia offshore wind farm	Consented	228 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓
Hornsea Project One	Operational	258 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓
Hornsea Project Two	Under construction	242 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓
Triton Knoll	Operational	248 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓
Race Bank	Operational	268 km	Puffin (assemblage feature)	Displacement from operating wind turbines	✓
Qualifying features: Breeding Arctic tern *Sterna paradisaea*, common tern *Sterna hirundo*, roseate tern *Sterna dougallii*, Sandwich tern *Thalasseus sandvicensis*, Seabird assemblage Conservation Objectives: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006031&HasCA=1&NumMarineSeasonality=4&SiteNameDisplay=Coquet%20Island%20SPA#hlco Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site					
Site assessment: The SPA was first classified in 1985 for breeding seabirds and was subsequently amended in 2017 to implement recommendations of the 2001 SPA Review. The site was formally designated for breeding tern species, and a seabird assemblage of international importance including both the qualifying tern species, puffin and black-headed gull. A number of projects were consented prior to the reclassification of the site in 2017 but have not been assessed for the site prior to their completion, or else are located in offshore waters such they are subject to review following completion. All of the above listed consents are within the mean maximum foraging (+1SD) range of the puffin assemblage feature, such that an LSE cannot be discounted for the site in relation to the above listed projects.					

4.17 Farne Islands SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Dogger Bank A & B	Consented	224 km 206 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Dogger Bank C	Consented	270 km	Kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Sofia offshore wind farm	Consented	235 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Hornsea Project Two	Under construction	266 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Hornsea Project One	Operating	280 km	Kittiwake (assemblage feature)	Collision risk from operating wind turbines	✓
Triton Knoll	Operating	280 km	Kittiwake (assemblage feature)	Collision risk from operating wind turbines	✓
Race Bank	Operating	297 km	Kittiwake (assemblage feature)	Collision risk from operating wind turbines	✓
Qualifying features: Breeding Arctic tern *Sterna paradisaea*, common tern *Sterna hirundo*, guillemot *Uria aalge*, roseate tern *Sterna dougallii*, Sandwich tern *Thalasseus sandvicensis*, Seabird assemblage Conservation Objectives: https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9006021&HasCA=1&NumMarineSeasonality=5&SiteNameDisplay=Farne%20Islands%20SPA#hlco Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: the extent and distribution of the habitats of the qualifying features the structure and function of the habitats of the qualifying features the supporting processes on which the habitats of the qualifying features rely the populations of each of the qualifying features the distribution of qualifying features within the site					
Site assessment: The SPA was first classified in 1985 for breeding seabirds and was subsequently amended in 2017 to implement recommendations of the 2001 SPA Review. The site was formally designated for breeding tern species and guillemot, and a seabird assemblage of international importance including both the qualifying tern species, puffin, cormorant, shag and kittiwake. A number of projects were consented prior to the reclassification of the site in 2017 but have not been assessed for the site prior to their completion, or else are located in offshore waters such they are subject to review following completion. All of the above listed consents are within the mean maximum foraging (+1SD) range of the puffin and/or kittiwake assemblage features, such that an LSE cannot be discounted for the site in relation to the above listed projects.					

4.18 Northumberland Marine SPA

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
Dogger Bank A & B	Consented	198 km 184 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Dogger Bank C	Consented	251 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Sofia offshore wind farm	Consented	213 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Hornsea Project One	Operational	241 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Hornsea Project Two	Under construction	225 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Triton Knoll	Operational	226 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Race Bank	Operational	245 km	Puffin, kittiwake (assemblage feature)	Displacement/collision risk from operating wind turbines	✓
Dudgeon	Operational	275 km	Kittiwake (assemblage feature)	Collision risk from operating wind turbines	✓

Qualifying features: Breeding Arctic tern *Sterna paradisaea*, common tern *Sterna hirundo*, guillemot *Uria aalge*, little tern *Sternula albifrons*, puffin *Fratercula arctica*, roseate tern *Sterna dougallii*, Sandwich tern *Thalasseus sandvicensis*, Seabird assemblage

Conservation Objectives:
https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK9020325&HasCA=1&NumMarineSeasonality=7&SiteNameDisplay=Northumberland%20Marine%20SPA#hlco

Ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the populations of each of the qualifying features
- the distribution of qualifying features within the site

Site assessment: The site was classified in 2017 and protect waters used by seabird and auk features of the Farne Islands SPA, Coquet Island SPA, Lindisfarne SPA and Northumbria Coast SPA used for foraging, bathing and preening.

Project	Status	Distance to site	Relevant features	Potential source of effect	LSE?
It is acknowledged that the features of this site are, by association, already considered as part of the Farne Islands SPA and Coquet Island SPAs (all having the same classification date) for the projects listed above (apart from Dudgeon offshore wind farm) in relation to puffin or kittiwake (assemblage feature). The above projects are relevant to the site as they were consented following the site classification date but are either not complete or are located in offshore waters making them relevant to the review. An LSE cannot be discounted for the puffin and kittiwake features of the site as they are within the mean maximum foraging range (+1SD) of the above listed consents.					

4.19 Conclusion

On the basis of the above information, an LSE cannot be excluded for following sites/consents listed below (Table 2) and shown in Figure 3 to Figure 6. These site/consent combinations will be subject to further Appropriate Assessment (see Section 6).

Table 2: European sites for which significant effects cannot be excluded alone or in combination with other plans or projects

Site	Species	Associated Consent(s)	Sources of potentially significant effect to consider further
Copeland Islands SPA	Manx shearwater	Walney 2, Walney 1, West of Duddon Sands, Ormonde, Gwynt y Môr	Displacement by offshore wind turbines.
Skomer, Skokholm and the Seas off Pembrokeshire SPA	Manx shearwater	Burbo Bank Extension, Walney Extension	Displacement by offshore wind turbines.
Irish Sea Front SPA	Manx shearwater	Walney Extension	Displacement by offshore wind turbines.
Dee Estuary (extension) SPA	Sandwich tern, common tern, wintering waterbirds	Walney 2, Walney 1, West of Duddon Sands, Ormonde, Gwynt y Môr	Displacement/collision risk.
Liverpool Bay SPA	Red-throated diver, common tern, little tern, little gull, cormorant, red-breasted merganser	Walney extension, Gwynt y Môr, Preesall Saltfield Underground Gas Storage	Displacement/collision risk from operating wind turbines; Discharges of saline water; Disturbance from movements of vessels associated with outfall construction
Mersey Narrows and Wirral Foreshore SPA	Breeding/non-breeding common tern. Wintering bar-tailed godwit and knot. Waterbird assemblage.	Gwynt y Môr	Displacement/collision risk from operating wind turbines
Anglesey Terns SPA	Sandwich tern	Burbo Bank extension	Displacement/collision risk from operating wind turbines.

Site	Species	Associated Consent(s)	Sources of potentially significant effect to consider further
Morecambe Bay and Duddon Estuary SPA	Black-tailed godwit, whooper swan, little egret, Mediterranean gull, lesser black-backed gull and ruff, Sandwich tern, common tern	Burbo Bank Extension, Walney Extension, Preesall Saltfield Underground Gas Storage	Displacement/collision risk from operating wind turbines; Discharges of saline water; Disturbance from movements of vessels associated with outfall construction
Coquet Island SPA	Puffin (assemblage feature)	Dogger Bank A & B, Dogger Bank C, Sofia offshore wind farm, Hornsea Project One, Hornsea Project Two, Triton Knoll, Race Bank	Displacement by operating wind turbines
Farne Islands SPA	Puffin, kittiwake (assemblage features)	Dogger Bank A & B, Dogger Bank C, Sofia offshore wind farm, Hornsea Project Two, Hornsea Project One, Triton Knoll, Race Bank	Displacement/collision risk from operating wind turbines
Northumberland Marine SPA	Puffin, kittiwake (assemblage feature)	Dogger Bank A & B, Dogger Bank C, Sofia offshore wind farm, Hornsea Project One, Hornsea Project Two, Triton Knoll, Race Bank, Dudgeon	Displacement/collision risk from operating wind turbines
Flamborough and Filey Coast SPA	Northern gannet, guillemot, razorbill, puffin (assemblage feature).	Dudgeon, Race Bank, Greater Gabbard	Displacement/collision risk from operating wind turbines
Greater Wash SPA	Red-throated diver, common scoter, little tern, Sandwich tern, common tern, little gull	Dogger Bank A&B (export cable), Dudgeon, Race Bank, East Anglia One, East Anglia Three	Disturbance from vessels and other nearshore activities associated with export cable installation; Displacement/collision risk from operating wind turbines.
Humber Estuary SPA	Avocet, black-tailed godwit, knot, dunlin, redshank and ruff	Lynn, Inner Dowsing	Displacement/collision risk from operating wind turbines
Outer Thames Estuary SPA	Common tern	Galloper, Greater Gabbard	Displacement/collision risk from operating wind turbines
Stour and Orwell Estuaries (extension) SPA	Avocet, knot, pintail, waterbird assemblage	Gunfleet Sands I	Displacement/collision risk from operating wind turbines
Dungeness, Romney Marsh & Rye Bay SPA	Avocet, bittern, ruff, golden plover, Sandwich tern	Rampion	Displacement/collision risk from operating wind turbines.

Figure 3: SPAs and related consents for which an LSE could not be discounted

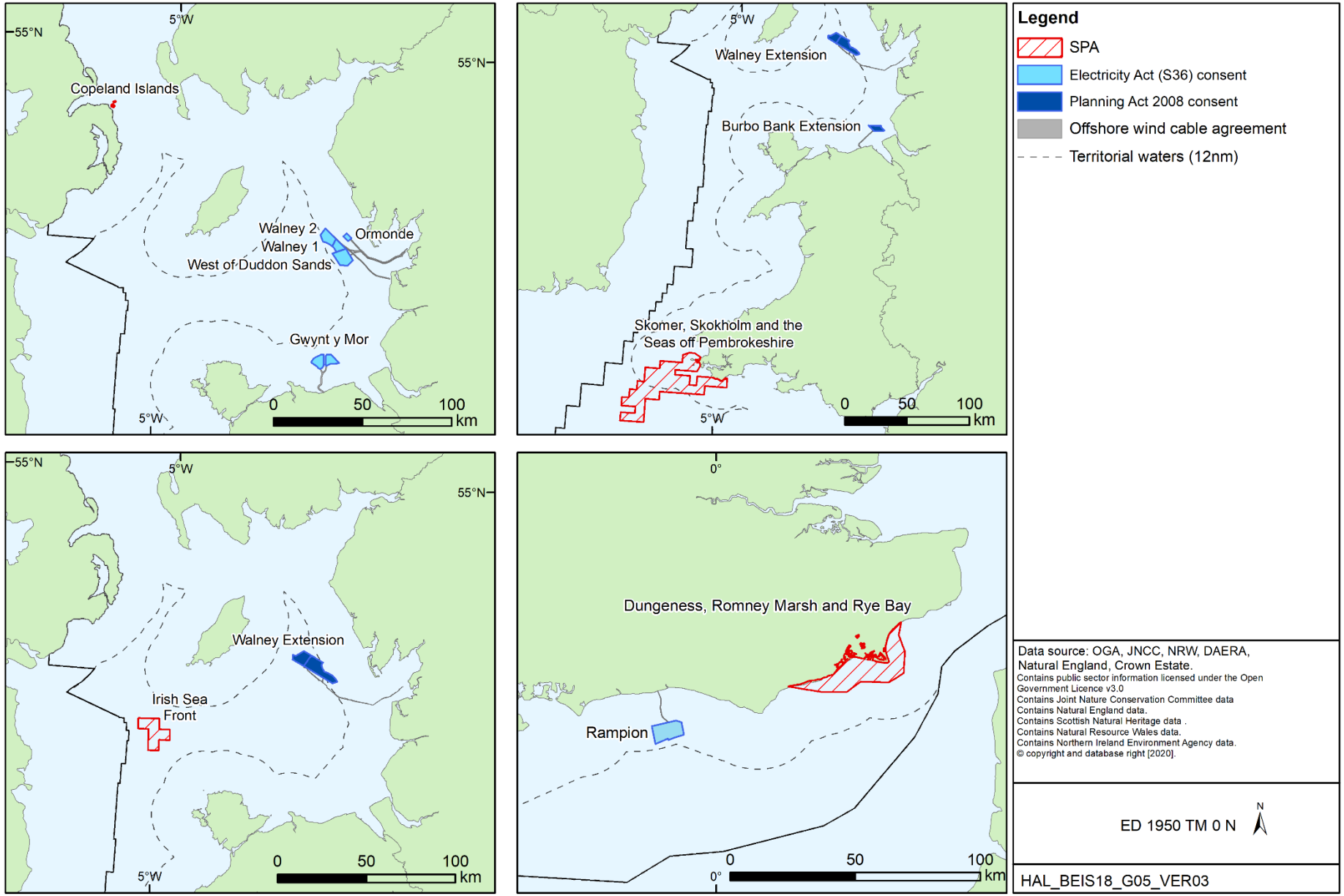


Figure 4: SPAs and related consents for which an LSE could not be discounted (continued)

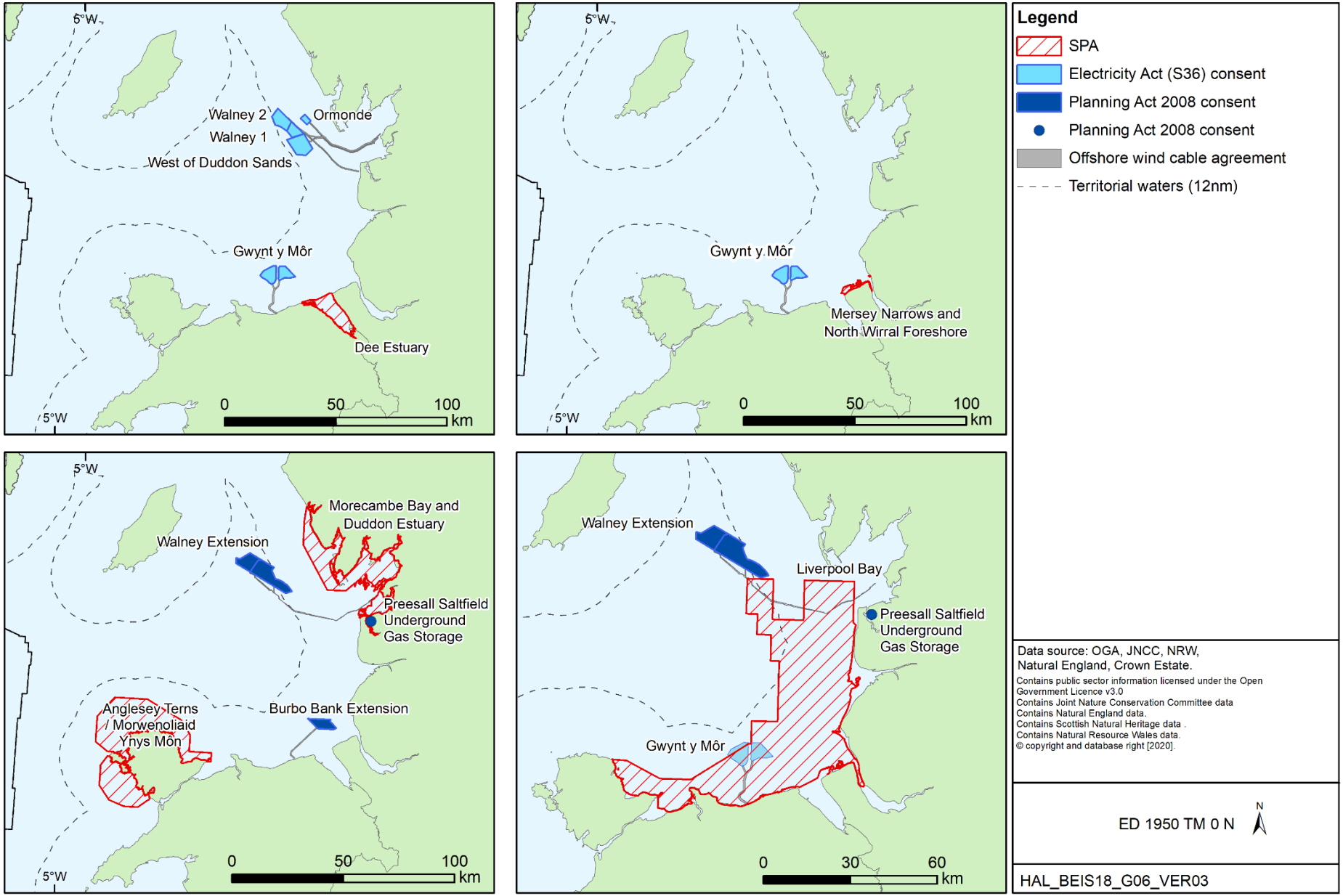


Figure 5: SPAs and related consents for which an LSE could not be discounted (continued)

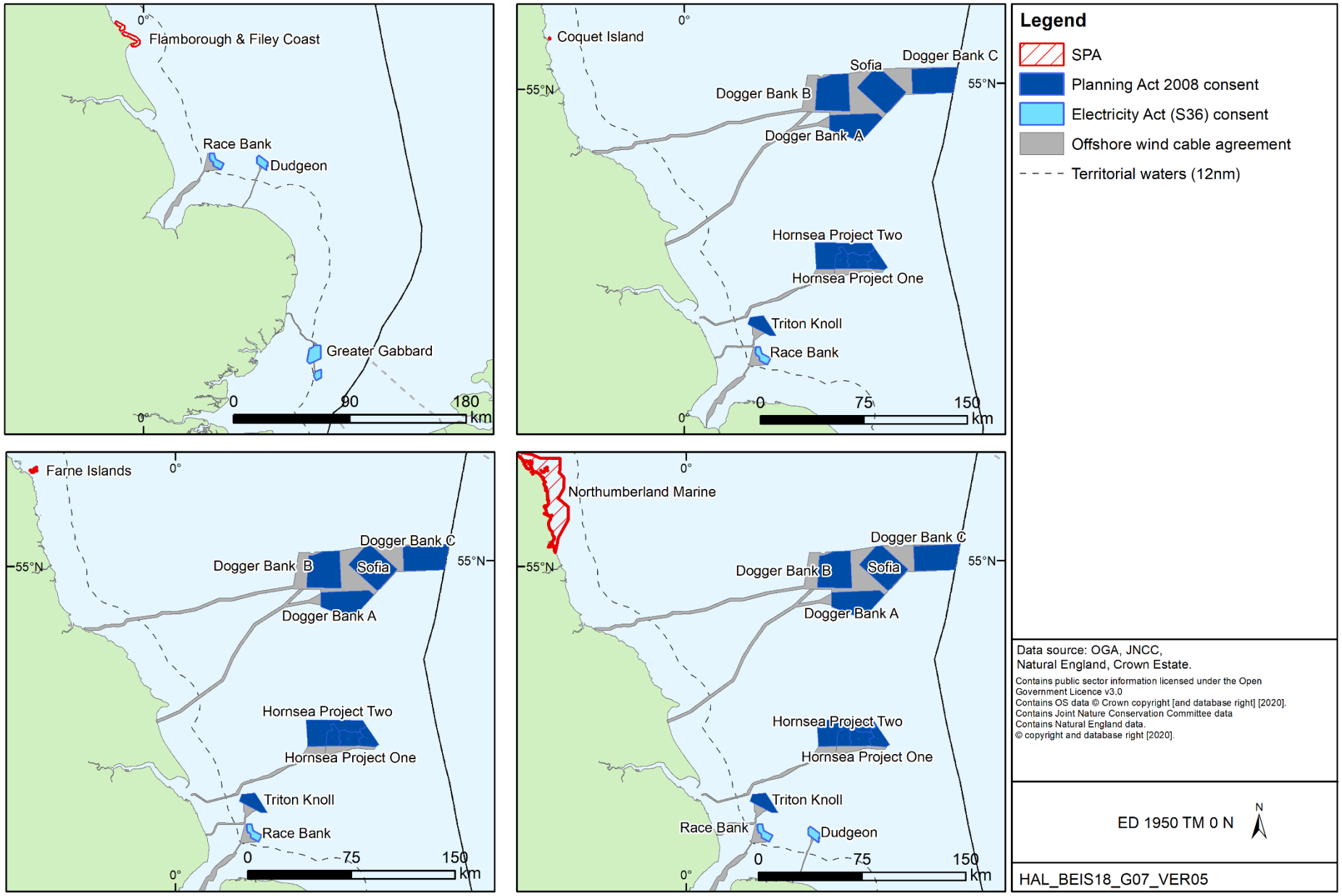
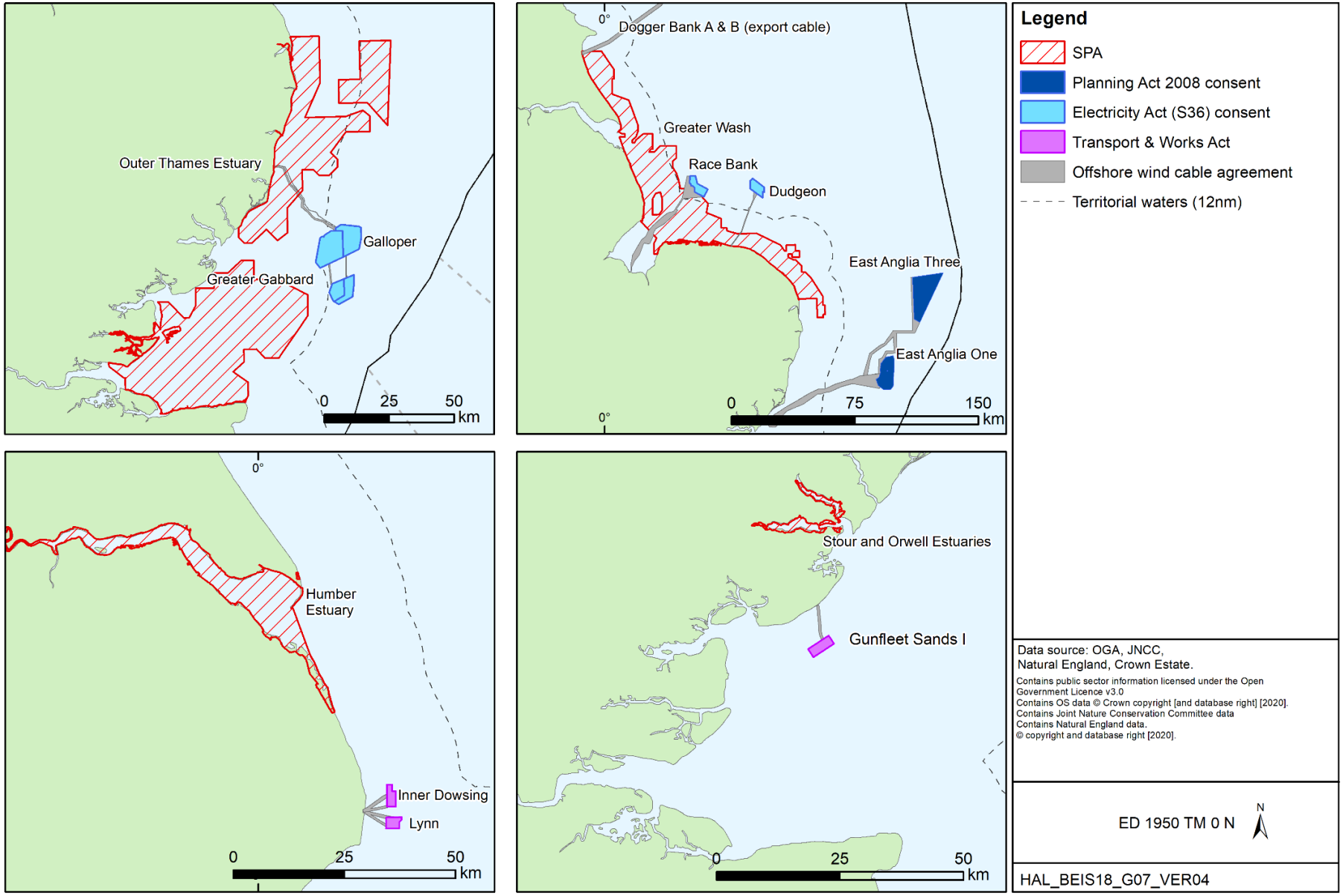


Figure 6: SPAs and related consents for which an LSE could not be discounted (continued)



5 Likely Significant Effects in-combination assessment

Based on the conclusions of Section 4, it is not considered that any of the SPA sites for which an LSE was excluded in relation to any project alone, have the potential to result in a significant effect when considered in-combination with other plans or projects. It is therefore further concluded that only those site/project combinations identified as requiring Appropriate Assessment should be subject to an assessment of in-combination effects, which is ideally considered at the next stage of assessment.

Specific other plans and projects relevant to the in-combination assessment are not listed here as the AA will need to consider the latest set of sources of effect at the time of assessment. In-combination effects in relation to projects in the pre-planning and planning stage will not be considered, as these projects will be subject to their own HRA processes. In view of the consents and features identified for further assessment, the major source of in-combination effect is considered to be other offshore wind farms, however, the following additional sources of potential in-combination effect will be considered at the AA stage:

- Other offshore wind farms
- Offshore oil and gas activities
- Marine aggregate extraction
- Shipping
- Commercial fisheries

6 Next Steps: Appropriate Assessment

This section outlines additional data analysis which may be required to undertake an Appropriate Assessment (AA) on the relevant consented projects. At this stage, a high level approach has been taken and regional or project specific data sources have not been identified. The aim of this section is not to present an in-depth review of all the available data but highlight additional information that may be required to inform the AA.

6.1 Collision Risk

The approach to assessing the potential impacts from collisions within environmental assessments has evolved over the years and will continue to do so as new evidence becomes available and assessment methods change. In particular, collision risk models used in the assessments have changed from the original model developed twenty years ago to more recent variations (e.g. Band 2000, 2012, McGregor *et al*. 2018). Furthermore, there have been significant changes in the input parameters used in the modelling, most notably the avoidance rates which have largely increased from an historical generic 95% to up to 99.5% for some species (e.g. SNH 2010, Cook *et al*. 2014).

In addition to the changes in the approaches used to undertake collision risk modelling there are also changes in the project design from the consented design envelope to what has subsequently been constructed. In particular, as new turbines have become available the number of turbines installed is frequently lower than what was originally assessed, and the size of the turbines have increased. Consequently, the predicted number of collisions has typically been lower than that used in the assessment made at the time of the application. This has been highlighted in the so-called 'headroom' where the difference between the predicted number of collisions at the time of consent and those from the as built scenarios have been calculated for constructed wind farms (Trinder 2017).

These changes, along with others, have meant that using outputs from different project's applications are not directly comparable and many may not be suitable for the purposes of this HRA for either the project alone or in-combination.

To address this within the AA, it is not proposed to undertake new collision risk modelling for each of the relevant projects either alone or in-combination. The AA will aim to use existing published data from a number of possible sources that have taken account of the recognised differences in collision risk modelling between projects. There are a number of potential sources of existing published information and each of these will require detailed scrutiny of their suitability for use within the HRA. If gaps are later identified in the data that cannot be addressed by the use of existing published material then additional collision risk modelling may be undertaken.

Potential sources of collision risk modelling outputs that could be used to support the AA include recent (or future) offshore wind farm applications e.g. Norfolk Vanguard, Hornsea Project Three, East Anglia One North, Ormonde Extension, where in-combination collision risk modelling has been undertaken using the most recent approaches. Where recent modelling has not been undertaken that includes an SPA or a certain qualifying species, other sources

from which to obtain data will include outputs from the updated Cumulative Ornithology Collision Risk Database (Royal Haskoning 2019).

6.2 Displacement impacts

The approach to assessing impacts from displacement effects using a displacement matrix is fairly standardised and data from most recent projects will be comparable. Where possible results from existing assessments on displacement effects will be used. However, where there are no suitable data, the displacement impacts will be assessed using displacement matrices as per the norm for offshore wind farm assessments. The extent of displacement, proportion of birds displaced and level of mortality for each species for each season will be agreed with the SNCBs at the time.

6.3 Apportioning of impacts

A key element in undertaking an impact assessment is the process of apportioning the predicted number of impacts to the relevant SPA. The HRA will endeavour to use existing apportioned data where it is appropriate to do so. However, it is possible that for some projects and SPAs there has not been any previously apportioned impacts. Where this occurs the predicted number of impacts will be apportioned for both breeding and non-breeding periods, including periods of passage and if required for adult and immature birds. The apportioning will be undertaken using the methods proposed by SNH in their interim guidance (SNH 2018).

It is recognised that impacts on qualifying features can occur throughout the year, including the non-breeding periods of spring and autumn passage and winter and the potential impacts from each of the projects during these periods need to be apportioned to the relevant SPAs. To address this, the Biologically Defined Minimum Population Scale (BDMPS) will be identified for each of the qualifying species for each of the seasons (e.g. Furness 2015). The potential collision and displacement impacts for each development will, if required, be calculated based on the proportion that the SPA population contributes to the BDMPS. If available, the potential impacts will be adjusted to account for adult birds using project specific data or otherwise the age structure models presented in Furness (2015). Wherever possible existing published information relating to specific species or SPAs will be used.

6.4 Demographic Modelling

In order to determine the potential effects of impacts from offshore wind farms, population modelling has been increasingly used as an integral tool in the assessment of impacts using either population viability analysis (PVA) or potential biological removal (PBR). Where existing PVA has previously been undertaken it is proposed that the outputs from these reports will be used to inform the HRA where it is appropriate to do so, e.g. EATL (2016), MacArthur Green (2018, 2019). Where there are no suitable existing data, additional modelling may be required if the scale of predicted impacts on a specific species at a designated site is deemed to warrant it.

6.5 Summary and conclusion

The above provides a brief outline of where additional analysis may be required. However, the aim is to use existing published information wherever possible when undertaking the AA. Prior to the AA being undertaken, a detailed review of the existing data for each of the relevant projects will be undertaken to identify the suitability of their existing data for assessment against each of the SPAs and qualifying species. Any gaps in the existing data will be identified and a determination made on whether other sources of data could be used to address the gaps or whether new analysis is required. The outputs from this exercise would be discussed with the SNCBs prior to commencing the AA. It is anticipated that the AA process will take place during the first half of 2021.

7 Habitats Regulations Assessment Screening: Overall Conclusions

The Secretary of State has carefully considered the information presented within those applications for consent previously made for a number of energy projects in relation to those SPAs which were classified following consent of a relevant project but in advance of these projects being completed (excluding those in offshore waters for which any new classification is considered to be relevant). The consideration has included former decision conclusions, including of HRAs, for these projects.

The screening assessment has been subject to consultation with the SNCBs and relevant stakeholders via a public consultation, and any representations have been taken into account in the final documentation and conclusions of the screening. Those sites and related projects listed in Table 2 will be subject to Appropriate Assessment.

8 Transboundary Assessment

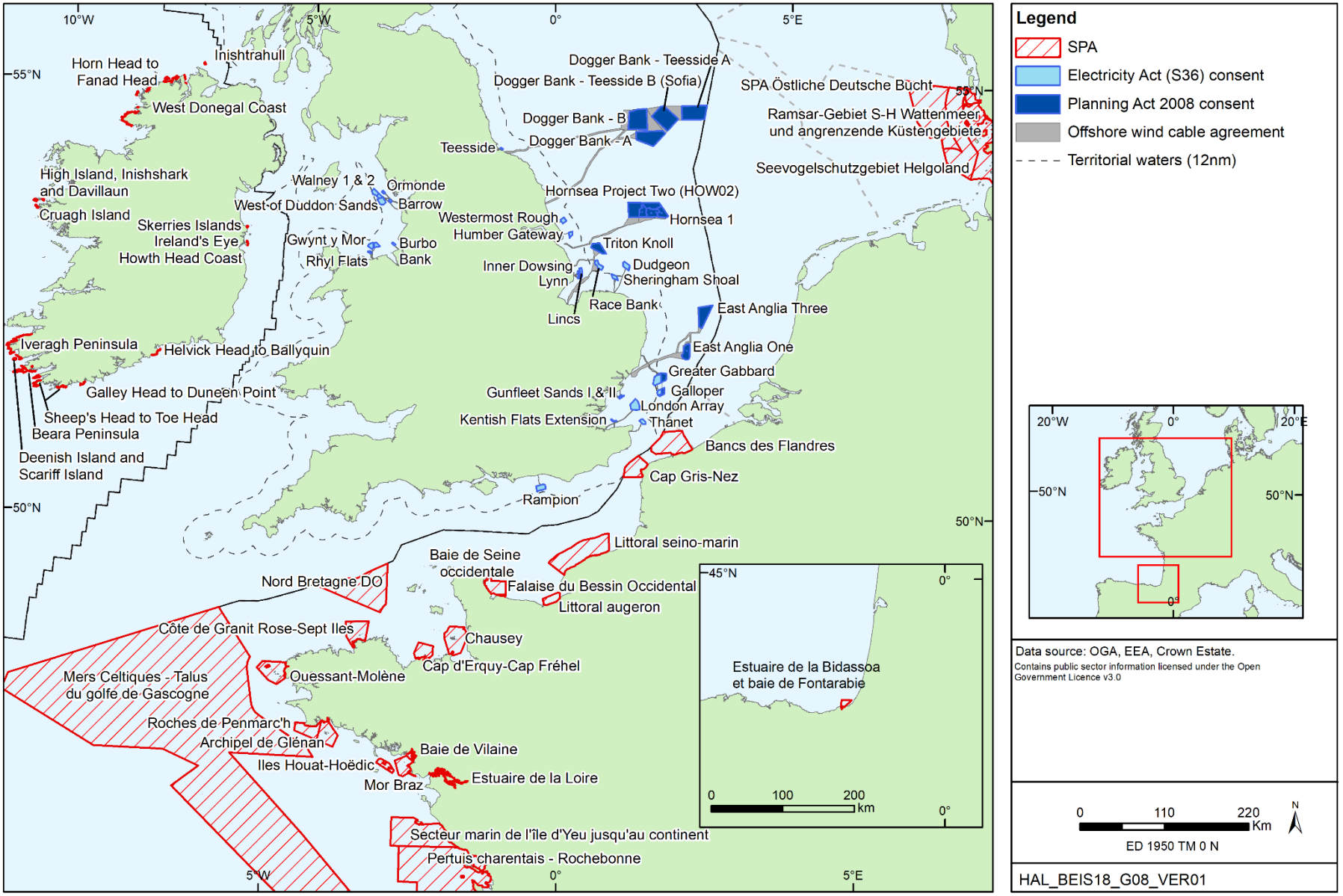
None of the onshore consents were considered to have the potential to result in an LSE for SPAs in adjacent states, and therefore only offshore consents have been included in this transboundary consideration.

Given the potential for the Projects subject to review to affect mobile features across a wide geographical area; the Secretary of State believes it important to consider the potential for LSE on European sites in other Member states, known as transboundary sites. Sites in Denmark, Sweden, Germany, Netherlands, Belgium, France, and Ireland were considered. Site classification dates were obtained from the most recent European Environment Agency (EEA) compilation of Natura 2000 data available[36]. An interaction was identified for the majority of these sites for breeding seabirds with large foraging ranges, in particular fulmar and Manx shearwater. A full list of the sites identified, and their related features of relevance is provided in Appendix 2.

The sites and wind farms considered in the transboundary assessment are indicated in Figure 7 below – note that not all sites are relevant to all wind farms, they are presented here together to reduce the number of individual maps that would be required to represent this on a site by site basis (refer to Appendix 2 for more details). While the potential for interaction was identified for a large number of sites, an LSE was not concluded for these in relation to any of the consents under review.

[36] https://www.eea.europa.eu/data-and-maps/data/natura-11 (end 2019)

Figure 7: SPAs in adjacent states and relevant wind farms



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Date: December 2020

Appendix 1: Identification of relevant SPA/energy project combinations

The following tables list all of the consents which were considered as part of this review and the date of consent and completion (Table A1. 1) used to initially identify SPA sites, and a listing of those projects and sites along with an indication of which were selected as relevant to the review on the basis of identifying a potential interaction (Table A1. 2).

Table A1. 1: Capacities and consent and completion timings for projects relevant to this review

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
Projects located onshore and in territorial waters					
Walney 2	Offshore wind (184MW)	Active/In Operation	Electricity Act (S36)	07/11/2007	06/04/2012
Walney 1	Offshore wind (184MW)	Active/In Operation	Electricity Act (S36)	07/11/2007	30/05/2011
West of Duddon Sands	Offshore wind (389MW)	Active/In Operation	Electricity Act (S36)	04/09/2008	16/01/2014
Ormonde	Offshore wind (150MW)	Active/In Operation	Electricity Act (S36)	04/09/2008	22/02/2012
Gwynt y Môr	Offshore wind (576MW)	Active/In Operation	Electricity Act (S36)	03/12/2008	30/08/2013
Burbo Bank Extension	Offshore wind (258MW)	Active/In Operation	Planning Act 2008	26/09/2014	27/04/2017
Gunfleet Sands I	Offshore wind (108MW)	Active/In Operation	Transport and Works Act 1992	01/03/2004	24/07/2009
London Array	Offshore wind (630MW)	Active/In Operation	Electricity Act (S36)	05/09/2007	29/10/2012
Thanet	Offshore wind (300MW)	Active/In Operation	Electricity Act (S36)	18/12/2006	18/05/2010
Sheringham Shoal	Offshore wind (317MW)	Active/In Operation	Electricity Act (S36)	07/08/2008	04/08/2011
Lincs	Offshore wind (270MW)	Active/In Operation	Electricity Act (S36)	21/10/2008	01/08/2012

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
Humber Gateway	Offshore wind (219MW)	Active/In Operation	Electricity Act (S36)	09/02/2011	01/02/2015
Westermost Rough	Offshore wind (210MW)	Active/In Operation	Electricity Act (S36)	29/11/2011	10/09/2014
Lynn	Offshore wind (97MW)	Active/In Operation	Transport and Works Act 1992	14/08/2004	15/03/2008
Inner Dowsing	Offshore wind (97MW)	Active/In Operation	Transport and Works Act 1992	23/09/2003	20/04/2008
Ferrybridge Multifuel 2 (FM2)	EfW Incineration (70MW)	Under Construction	Planning Act 2008	28/10/2015	23/09/2019
Rookery South	EfW Incineration (65MW)	Under Construction	Planning Act 2008	13/10/2011	n/a
North London Heat and Power (Edmonton EcoPark Replacement)	EfW Incineration (70MW)	Consented	Planning Act 2008	24/02/2017	n/a
Drax Re-Power	Gas turbine and battery (200MW)	Consented	Planning Act 2008	04/10/2019	n/a
Tilbury Energy Centre	Battery (100MW)	Consented	Planning Act 2008	09/03/2018	n/a
VPI Immingham OCGT	OCGT power station (299MW)	Consented	Planning Act 2008	09/05/2019	n/a
Cleve Hill Solar Park	Photo voltaics, storage and connection (350MW)	Consented	Planning Act 2008	28/05/2020	n/a
Reinforcement to North Shropshire Electricity Distribution Network	installation of a new 132kV overhead line	Consented	Planning Act 2008	20/03/2020	n/a
Kemsley Paper Mill (K4) CHP Plant	Combined Heat and Power Plant comprising	Consented	Planning Act 2008	05/07/2019	n/a

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
	a gas turbine (52MW), Waste Heat Recovery Boilers (105MWth steam) and Steam Turbine (16MW).				
Tees CCPP	CCGT power station (1,700MW)	Consented	Planning Act 2008	05/04/2019	n/a
Millbrook power	Gas fired peaking plant (299MW)	Consented	Planning Act 2008	13/03/2019	n/a
Eggborough CCGT	CCGT power station (2,500MW)	Consented	Planning Act 2008	20/09/2018	n/a
Wrexham Energy Centre	CCGT power station (299MW)	Consented	Planning Act 2008	18/07/2017	n/a
Richborough Connection Project	400kV electricity transmission connection - connection for NEMO Link	Completed	Planning Act 2008	03/08/2017	01/12/2018
Keuper Gas Storage Project	Underground Gas Storage Facility	Consented	Planning Act 2008	15/03/2017	n/a
Triton Knoll Electrical System	Onshore and offshore works for Triton Knoll connection	Consented	Planning Act 2008	03/09/2016	n/a
River Humber Gas Pipeline Replacement Project	Replacement of a 42" natural gas transmission pipeline	Consented	Planning Act 2008	25/08/2016	n/a
Meaford Energy Centre	CCGT power station (299MW)	Consented	Planning Act 2008	19/07/2016	n/a
North Wales Wind Farms Connection	132kV circuit	Completed	Planning Act 2008	28/07/2016	01/01/2018

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
Thorpe Marsh Gas Pipeline	Gas pipeline	Consented	Planning Act 2008	03/03/2016	n/a
Palm Paper 3 CCGT Power station Kings Lynn	CCGT power station (162MW)	Consented	Planning Act 2008	11/02/2016	01/03/2018
Hinkley Point C Connection	Overhead lines	Under Construction	Planning Act 2008	19/01/2016	n/a
Progress Power Station	Gas power station (299MW)	Consented	Planning Act 2008	23/07/2015	n/a
Knottingley Power Project	CCGT power station (1,500MW)	Consented	Planning Act 2008	10/03/2015	n/a
Willington C Gas Pipeline	Gas pipeline	Consented	Planning Act 2008	17/12/2014	n/a
South Hook Combined Heat & Power Station	CCGT and heat recovery (500MW)	Consented	Planning Act 2008	23/10/2014	n/a
North Killingholme Power Project	CCGT power station (470MW)	Consented	Planning Act 2008	11/09/2014	n/a
North London (Electricity Line) Reinforcement	Overhead lines	Consented	Planning Act 2008	16/04/2014	n/a
Kings Lynn B Connection Project	Overhead lines	Consented	Planning Act 2008	18/12/2013	n/a
Preesall Saltfield Underground Gas Storage	Underground Gas Storage Facility	Consented	Planning Act 2008	17/05/2015	n/a
Hinkley Point C New Nuclear Power Station	Nuclear power station (3,260MW)	Under Construction	Planning Act 2008	19/03/2013	n/a
Ferrybridge Multifuel 1 (FM1)	EfW Incineration (68MW)	Operational	Electricity Act (S36)	31/10/2011	03/08/2015
Tees Renewable Energy Plant	Biomass (dedicated) (299MW)	Under Construction	Electricity Act (S36)	09/03/2010	n/a

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
Drax Biomass Power Station - Unit 1	Biomass (co-firing) (645MW)	Operational	Electricity Act (S36)	10/08/2011	30/07/2013
Drax Biomass Power Station - Unit 2	Biomass (dedicated) (645MW)	Operational	Electricity Act (S36)	10/08/2011	30/05/2014
Drax Biomass Power Station - Unit 3	Biomass (dedicated) (645MW)	Operational	Electricity Act (S36)	10/08/2011	20/07/2017
Peterborough Energy Park (Green Energy Parks - Gasification)	Advanced Conversion Technologies (81MW)	Consented	Electricity Act (S36)	04/11/2009	n/a
Riverside Resource Recovery Facility (RRRF)	EfW Incineration (72MW)	Operational	Electricity Act (S36)	15/06/2006	01/09/2011
Lostock	EfW Incineration (60MW)	Consented	Electricity Act (S36)	02/10/2012	n/a
Runcorn EfW	EfW Incineration (100MW)	Operational	Electricity Act (S36)	16/09/2008	08/06/2013
Little Cheyne Court Wind Farm	Onshore wind (60MW)	Operational	Electricity Act (S36)	18/10/2005	01/06/2009
Scout Moor Wind Farm	Onshore wind (65MW)	Operational	Electricity Act (S36)	25/05/2005	01/06/2008
Frodsham Marsh	Onshore wind (50MW)	Operational	Electricity Act (S36)	19/10/2012	15/11/2016
Middlemoor	Onshore wind (54MW)	Operational	Electricity Act (S36)	07/08/2008	30/09/2013
Ray Wind Farm	Onshore wind (54MW)	Operational	Electricity Act (S36)	11/11/2010	05/02/2017
Fullabrook Down Wind Farm	Onshore wind (66MW)	Operational	Electricity Act (S36)	10/10/2007	24/01/2012
Heckington Fens	Onshore wind (54MW)	Consented	Electricity Act (S36)	08/02/2013	01/01/2021
Keadby Wind Farm	Onshore wind (68MW)	Operational	Electricity Act (S36)	28/02/2008	26/02/2015

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
Pen y Cymoedd	Onshore wind	Operational	Electricity Act (S36)	08/05/2012	19/05/2017
Projects located all or partly in offshore waters					
Greater Gabbard	Offshore wind (504MW)	Active/In Operation	Electricity Act (S36)	20/02/2007	07/09/2012
Rampion	Offshore wind (400MW)	Active/In Operation	Planning Act 2008	16/07/2014	30/11/2018
Dudgeon	Offshore wind (402MW)	Active/In Operation	Electricity Act (S36)	06/07/2012	15/10/2017
Race Bank	Offshore wind (287MW)	Active/In Operation	Electricity Act (S36)	06/07/2012	08/06/2012
Galloper	Offshore wind (353MW)	Active/In Operation	Planning Act 2008	24/05/2013	30/03/2018
Hornsea Project Two	Offshore wind (1,400MW)	Consented	Planning Act 2008	16/08/2016	n/a
East Anglia Three	Offshore wind (1,400MW)	Consented	Planning Act 2008	07/08/2017	n/a
Walney Extension	Offshore wind (660MW)	Active/In Operation	Planning Act 2008	07/11/2014	13/09/2018
Dogger Bank C	Offshore wind (1,200MW)	Consented	Planning Act 2008	05/08/2015	n/a
Sofia	Offshore wind (1,400MW)	Consented	Planning Act 2008	05/08/2015	n/a
Dogger Bank A	Offshore wind (1,400MW)	Consented	Planning Act 2008	17/02/2015	n/a
Dogger Bank B	Offshore wind (1,400MW)	Consented	Planning Act 2008	17/02/2015	n/a
Hornsea Project One	Offshore wind (1,200MW)	Active/In Operation	Planning Act 2008	10/12/2014	02/06/2020
East Anglia One	Offshore wind (714MW)	Active/In Operation	Planning Act 2008	17/06/2014	28/07/2020

Project Name	Project Type	Status	Type of consent	Date of consent	Date completed
Triton Knoll	Offshore wind (860MW)	Under Construction	Planning Act 2008	11/07/2013	n/a

Table A1. 2: Consents for which the remit to review has passed to another authority (all are onshore or in territorial waters)

Project Name	Project Type	Status	Type of consent	Date of consent	Relevant authority
Swansea Bay Tidal Lagoon	Tidal Barrage and Tidal Stream (320MW)	Consented	Planning Act 2008	09/06/2015	Welsh Ministers
Brechfa Forest West	Onshore wind (57MW)	Operational	Planning Act 2008	12/03/2013	Welsh Ministers
Clocaenog Forest Wind Farm	Onshore wind (96MW)	Completed	Planning Act 2008	12/09/2014	Welsh Ministers
Glyn Rhonwy (larger version)	Pumped Storage Hydroelectricity (99.9MW)	Consented	Planning Act 2008	08/03/2017	Welsh Ministers
Abergelli Power	Gas-fired peaking plant and connection infrastructure (299MW)	Consented	Planning Act 2008	19/09/2019	Welsh Ministers
Brechfa Forest Connection	132kV electric line connection for Brechfa wind farm	Completed	Planning Act 2008	06/10/2016	Welsh Ministers
North Wales Wind Farms Connection	132kV circuit	Completed	Planning Act 2008	28/07/2016	Welsh Ministers
Internal Power Generation Enhancement for Port Talbot Steelworks	Gas power station (164MW)	Consented	Planning Act 2008	08/12/2015	Welsh Ministers

Project Name	Project Type	Status	Type of consent	Date of consent	Relevant authority
Hirwaun Power Station	Gas power station (299MW)	Consented	Planning Act 2008	23/07/2015	Welsh Ministers
Anglesey Biomass Power Station	Biomass (dedicated) (299MW)	Consented	Electricity Act (S36)	16/09/2011	Welsh Ministers
Hayle Wave Hub (Test Site)	Shoreline Wave (23MW)	Operational	Electricity Act (S36)	15/07/2009	MMO
Cefn Croes Wind Farm	Onshore wind (59MW)	Operational	Electricity Act (S36)	10/12/2001	Welsh Ministers
Llandinam Wind Farm Repowering and Extension	Onshore wind (102MW)	Consented	Electricity Act (S36)	07/09/2015	Welsh Ministers
Pen y Cymoedd	Onshore wind (228MW)	Operational	Electricity Act (S36)	08/05/2012	Welsh Ministers
Barrow	Offshore wind (90MW)	Active/In Operation	Electricity Act (S36)	12/03/2003	MMO
Rhyl Flats	Offshore wind (90MW)	Active/In Operation	Electricity Act (S36)	01/01/2003	Welsh Ministers
Burbo Bank	Offshore wind (90MW)	Active/In Operation	Electricity Act (S36)	14/07/2006	MMO
Gunfleet Sands II	Offshore wind (65MW)	Active/In Operation	Electricity Act (S36)	28/02/2008	MMO
Gunfleet Sands Demo	Offshore wind (12MW)	Active/In Operation	Electricity Act (S36)	17/04/2012	MMO
Kentish Flats	Offshore wind (90MW)	Active/In Operation	Electricity Act (S36)	01/03/2003	MMO
Kentish Flats Extension	Offshore wind (50MW)	Active/In Operation	Planning Act 2008	19/02/2013	MMO

Project Name	Project Type	Status	Type of consent	Date of consent	Relevant authority
Scroby Sands	Offshore wind (60MW)	Active/In Operation	Electricity Act (S36)	01/12/2002	MMO
Teesside	Offshore wind (62MW)	Active/In Operation	Electricity Act (S36)	17/09/2007	MMO
Blyth	Offshore wind (4MW)	Decommissioned	Electricity Act (S36)	22/09/1998	MMO
Blyth Demo Phase 1	Offshore wind (42MW)	Active/In Operation	DECC (S36)/Marine Management Organisation	08/11/2013	MMO
North Hoyle	Offshore wind (60MW)	Active/In Operation	Electricity Act (S36)	31/07/2002	MMO

Table A1. 3: Summary overview of projects considered against SPAs classified in the period between consent and completion. The nature of each project was considered in relation to the qualifying interests of each site, and the likely potential for an interaction

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
Projects located onshore and in territorial waters				
Walney 2	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Rum (N), The Dee Estuary (Y), Ailsa Craig (N), Forth Islands (N), Handa (N), Porton Down (N), Flannan Isles N), Fowlsheugh (N), Shiant Isles (N), St Kilda (N), Copinsay (N), Fetlar (N), Hermaness, Saxa Vord and Valla field (N), Sule Skerry and Sule Stack (N), Fair Isle (N), Marwick Head (N), Mingulay and Berneray (N), Foula (N), Cape Wrath (N), East Caithness Cliffs (N), Sumburgh Head (N), North Caithness Cliffs (N), Noss (N), West Westray (N), North Colonsay and Western Cliffs (N), Troup, Pennan and Lion's Heads (N), St Abb's Head to Fast Castle (N), Canna and Sanday (N), Buchan Ness to Collieston Coast (N), Calf of Eday (N), Rousay (N), Hoy (N), Dyfi Estuary / Aber Dyfi (N), North Rona and Sula Sgeir (N), Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal (N), Oronsay and South Colonsay (N), Renfrewshire Heights (N), Strath Carnaig and Strath Fleet Moors (N), Slamanna18n Plateau (N), Belfast Lough Open Water (N), Copeland Islands
Walney 1	Offshore wind	Active/In Operation	Electricity Act (S36)	

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				(Y), West Inverness-shire Lochs (N), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N)
West of Duddon Sands	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Rum (N), The Dee Estuary (Y), Ailsa Craig (N), Forth Islands (N), Handa (N), Flannan Isles (N), Fowlsheugh (N), Shiant Isles (N), St Kilda (N), Copinsay (N), Fetlar (N), Hermaness, Saxa Vord and Valla Field (N), Sule Skerry and Sule Stack (N), Fair Isle (N), Marwick Head (N), Mingulay and Berneray (N), Foula (N), Cape Wrath (N), East Caithness Cliffs (N), Sumburgh Head (N), North Caithness Cliffs (N), Noss (N), West Westray (N), North Colonsay and Western Cliffs (N), Troup, Pennan and Lion's Heads (N), St Abb's Head to Fast Castle (N), Canna and Sanday (N), Buchan Ness to Collieston Coast (N), Calf of Eday (N), Rousay (N), Hoy (N), Dyfi Estuary / Aber Dyfi (N), North Rona and Sula Sgeir (N), Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal (N), Slamannan Plateau (N), Belfast Lough Open Water (N), Copeland Islands (Y), West Inverness-shire Lochs (N), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N), Mersey Narrows and North Wirral Foreshore (N), Liverpool Bay (Y).
Barrow	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Stour and Orwell Estuaries (N), Mersey Estuary (Y), Cairngorms (N), Migneint-Arenig-Dduallt (N), Bae Caerfyrddin/ Carmarthen Bay (N), Imperial Dock Lock, Leith (N), Novar (N), Thames Basin Heaths (N), Darnaway and Lethen Forest (N), Anagach Woods (N), Antrim Hills (N), Slieve Beagh - Mullaghfad - Lisnaskea (N)
Ormonde	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Rum (N), The Dee Estuary (Y), Ailsa Craig (N), Forth Islands (N), Handa (N), Flannan Isles (N), Fowlsheugh (N), Shiant Isles (N), St Kilda (N), Copinsay (N), Fetlar (N), Hermaness, Saxa Vord and Valla Field (N), Sule Skerry and Sule Stack (N), Fair Isle (N), Marwick Head (N), Mingulay and Berneray (N), Foula (N), Cape Wrath (N), East Caithness Cliffs (N), Sumburgh Head (N), North Caithness Cliffs (N), Noss (N), West Westray (N), North Colonsay and Western Cliffs (N), Troup, Pennan and Lion's Heads (N), St Abb's Head to Fast Castle (N), Canna and Sanday (N), Buchan Ness to Collieston Coast (N), Calf of Eday (N), Rousay (N), Hoy (N), Dyfi Estuary / Aber Dyfi (N), North Rona and Sula Sgeir (N), Mynydd

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal (N), Slamannan Plateau (N), Belfast Lough Open Water (N), Copeland Islands (Y), West Inverness-shire Lochs (N), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N),Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N)
Gwynt y Môr	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Rum (N), The Dee Estuary (Y), Grassholm (Y), Ailsa Craig (N), Forth Islands (N), Handa (N), Flannan Isles (N), Fowlsheugh (N), Shiant Isles (N), St Kilda (N), Copinsay (N), Fetlar (N), Hermaness, Saxa Vord and Valla Field (N), Sule Skerry and Sule Stack (N), Fair Isle (N), Marwick Head (N), Mingulay and Berneray (N), Foula (N), Cape Wrath (N), East Caithness Cliffs (N), Sumburgh Head (N), North Caithness Cliffs (N), Noss (N), West Westray (N), North Colonsay and Western Cliffs (N), Troup, Pennan and Lion's Heads (N), St Abb's Head to Fast Castle (N), Canna and Sanday (N), Buchan Ness to Collieston Coast (N), Calf of Eday (N), Rousay (N), Hoy (N), North Rona and Sula Sgeir (N), Belfast Lough Open Water (N), Copeland Islands (Y), West Inverness-shire Lochs (N), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N), Mersey Narrows and North Wirral Foreshore (Y), Liverpool Bay (Y)
Burbo Bank Extension	Offshore wind	Active/In Operation	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Rum (N), The Dee Estuary (Y), Grassholm (Y), Ailsa Craig (N), Forth Islands (N), Handa (N), Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island (Y), Flannan Isles (N), Fowlsheugh (N), Shiant Isles (N), St Kilda (N), Copinsay (N), Fetlar (N), Hermaness, Saxa Vord and Valla Field (N), Sule Skerry and Sule Stack (N), Fair Isle (N), Marwick Head (N), Mingulay and Berneray (N), Foula (N), Cape Wrath (N), East Caithness Cliffs (N), Sumburgh Head (N), North Caithness Cliffs (N), Noss (N), West Westray (N), North Colonsay and Western Cliffs (N), Troup, Pennan and Lion's Heads (N), St Abb's Head to Fast Castle (N), Canna and Sanday (N), Buchan Ness to Collieston Coast (N), Calf of Eday (N), Rousay (N), Hoy (N), North Rona and Sula Sgeir (N), Belfast Lough Open Water (N), Copeland Islands (Y), West Inverness-shire Lochs (N), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Valley Grvel Pits (N), Mersey Narrows and North Wirral Foreshore (Y), Anglesey Terns (Y).
Burbo Bank	Offshore wind	Active/In Operation	Electricity Act (S36)	**No foreseeable interaction**: Breckland, The Oa, Humber Estuary.
Gunfleet Sands I	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Porton Down (N), Stour and Orwell Estuaries (Y), Mersey Estuary (N), Cairngorms (N), Dyfi Estuary / Aber Dyfi (N), Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal (N), Imperial Dock Lock, Leith (N), Novar (N), Thames Basin Heaths (N), Darnaway and Lethen Forest (N), Anagach Woods (N), Antrim Hills (N), Slieve Beagh - Mullaghfad - Lisnaskea (N), Breckland (N), The Oa (N), Humber Estuary (N), Oronsay and South Colonsay (N), Renfrewshire Heights (N), Strath Carnaig and Strath Fleet Moors (N), Slamannan Plateau (N)
London Array	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** The Dee Estuary (N), Porton Down (N), Dyfi Estuary / Aber Dyfi (N), Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal (N), Oronsay and South Colonsay (N), Renfrewshire Heights (N), Strath Carnaig and Strath Fleet Moors (N), Slamannan Plateau (N), Belfast Lough Open Water (N), Copeland Islands (N), West Inverness-shire Lochs (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (Y), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N)
Thanet	Offshore wind	Active/In Operation	Electricity Act (S36)	**No foreseeable interaction**: Humber Estuary, Oronsay and South Colonsay, Renfrewshire Heights, Strath Carnaig and Strath Fleet Moors, Slamannan Plateau, Belfast Lough Open Water, Copeland Islands, West Inverness-shire Lochs.
Sheringham Shoal	Offshore wind	Active/In Operation	Electricity Act (S36)	**No foreseeable interaction**: the Dee Estuary, Slamannan Plateau, Belfast Lough Open Water, Copeland Islands, West Inverness-shire Lochs, Cairngorms Massif, Foinaven, Glen Affric to Strathconon, Glen Etive and Glen Fyne, Jura, Scarba and the Garvellachs, Moidart and Ardgour, Upper Nene Valley Gravel Pits.
Lincs	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** The Dee Estuary (N), Belfast Lough Open Water (N), Copeland Islands (N), West

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Inverness-shire Lochs (N), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N), Mersey Narrows and North Wirral Foreshore (N).
Humber Gateway	Offshore wind	Active/In Operation	Electricity Act (S36)	**No foreseeable interaction**: Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Upper Nene Valley Gravel Pits, Mersey Narrows and North Wirral Foreshore.
Westermost Rough	Offshore wind	Active/In Operation	Electricity Act (S36)	**No foreseeable interaction**: Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Mersey Narrows and North Wirral Foreshore.
Lynn	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (relevant N/Y):** Stour and Orwell Estuaries (N), Cairngorms (N), Imperial Dock Lock, Leith (N), Novar (N), Thames Basin Heaths (N), Darnaway and Lethen Forest (N), Anagach Woods (N), Antrim Hills (N), Slieve Beagh - Mullaghfad - Lisnaskea (N), Breckland (N), The Oa (N), Humber Estuary (Y), Oronsay and South Colonsay (N), Renfrewshire Heights (N)
Inner Dowsing	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Stour and Orwell Estuaries (N), Mersey Estuary (N), Cairngorms (N), Imperial Dock Lock, Leith (N), Novar (N), Thames Basin Heaths (N), Darnaway and Lethen Forest (N), Anagach Woods (N), Antrim Hills (N), Slieve Beagh - Mullaghfad - Lisnaskea (N), Breckland (N), The Oa (N), Humber Estuary (Y), Oronsay and South Colonsay (N), Renfrewshire Heights (N)
Ferrybridge Multifuel 2 (FM2)	EfW Incineration	Under Construction	Planning Act 2008	No foreseeable interactions.
Rookery South	EfW Incineration	Under Construction	Planning Act 2008	No foreseeable interactions.
North London Heat and Power (Edmonton EcoPark Replacement)	EfW Incineration	Consented	Planning Act 2008	**No foreseeable interaction:** Flamborough and Filey Coast, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
Drax Re-Power	Battery	Consented	Planning Act 2008	**No foreseeable interaction:** Teesmouth and Cleveland Coast, Solent and Dorset Coast
Tilbury Energy Centre	Battery	Consented	Planning Act 2008	**No foreseeable interaction:** Flamborough and Filey Coast, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Greater Wash, Solent and Dorset Coast
VPI Immingham OCGT	OCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Teesmouth and Cleveland Coast, Solent and Dorset Coast
Cleve Hill Solar Park	Photo voltaics, storage and connection	Consented	Planning Act 2008	No relevant sites in date range.
Reinforcement to North Shropshire Electricity Distribution Network	installation of a new 132kV overhead line	Consented	Planning Act 2008	No relevant sites in date range.
Tees CCPP	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Teesmouth and Cleveland Coast, Solent and Dorset Coast (N). Tees CCCP HRA considered as Teesmouth and Cleveland Coast as a pSPA
Millbrook power	Gas fired peaking plant	Consented	Planning Act 2008	**No foreseeable interaction:** Teesmouth and Cleveland Coast, Solent and Dorset Coast
Eggborough CCGT	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Teesmouth and Cleveland Coast, Solent and Dorset Coast, Dyfi Estuary / Aber Dyfi
Wrexham Energy Centre	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Flamborough and Filey Coast, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
Richborough Connection Project	400kV electricity transmission connection - connection for NEMO Link	Completed	Planning Act 2008	**No foreseeable interaction:** Flamborough and Filey Coast, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast
Keuper Gas Storage Project	Underground Gas Storage Facility	Consented	Planning Act 2008	**No foreseeable interaction**: Flamborough and Filey Coast, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast. Note, potential of Runcorn outfall for marine sites was considered, but an interaction with those sites in the relevant date ranges was not identified.
Triton Knoll Electrical System	Onshore and offshore works for Triton Knoll connection	Consented	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast, Hamford Water (N), Teesmouth and Cleveland Coast, Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Irish Sea Front (N), Greater Wash (Y), Solent and Dorset Coast (N).
River Humber Gas Pipeline Replacement Project	Replacement of a 42" natural gas transmission pipeline	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Hamford Water, Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front
Meaford Energy Centre	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Hamford Water, Poole Harbour, Dungeness,

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Romney Marsh and Rye Bay, Northumbria Coast, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front
Thorpe Marsh Gas Pipeline	Gas pipeline	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Hamford Water, Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front
Palm Paper 3 CCGT Power station Kings Lynn	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Hamford Water, Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front
Hinkley Point C Connection	Overhead lines	Under Construction	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast
Progress Power Station	Gas power station	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast
Knottingley Power Project	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast
Willington C Gas Pipeline	Gas pipeline	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast
South Hook Combined Heat & Power Station	CCGT and heat recovery	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Coast, Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island
North Killingholme Power Project	CCGT power station	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast, Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island
North London (Electricity Line) Reinforcement	Overhead lines	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast, Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island
Kings Lynn B Connection Project	Overhead lines	Consented	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Anglesey Terns / Morwenoliaid Ynys Môn, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Dyfi Estuary / Aber Dyfi, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Coast, Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island
Preesall Saltfield Underground Gas Storage	Underground Gas Storage Facility	Consented	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (N), Hamford Water (N), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast, Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (Y), Outer Thames Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (Y), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (N), Solent and Dorset Coast (N)
Hinkley Point C New Nuclear Power Station	Nuclear power station	Under Construction	Planning Act 2008	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (N), Hamford Water (N), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (N), Solent and Dorset Coast (N), Grassholm (N), Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island (N), Mersey Narrows and North Wirral Foreshore (N)
Ferrybridge Multifuel 1 (FM1)	EfW Incineration	Operational	Electricity Act (S36)	**No foreseeable interaction:** Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Mersey Narrows and North Wirral Foreshore
Tilbury Green Power	Biomass (dedicated)	Operational	Electricity Act (S36)	**No foreseeable interaction**: Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Flamborough and Filey Coast, Hamford Water, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour,

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash
Drax Biomass Power Station - Unit 1 and 2	Biomass (dedicated)	Completed	Electricity Act (S36)	**No foreseeable interaction**: Mersey Narrows and North Wirral Foreshore
Drax Biomass Power Station - Unit 3	Biomass (dedicated)	Completed	Electricity Act (S36)	**No foreseeable interaction**: Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Hamford Water, Northumbria Coast, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary.
Tees Renewable Energy Plant	Biomass (dedicated)	Under Construction	Electricity Act (S36)	**No foreseeable interaction**: Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Upper Nene Valley Gravel Pits, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Irish Sea Front, Greater Wash, Solent and Dorset Coast.
Fibrepower, Slough	EfW Incineration	Operational	Electricity Act (S36)	No sites in date window
Riverside Resource Recovery Facility (RRRF)	EfW Incineration	Operational	Electricity Act (S36)	**No foreseeable interaction:** The Dee Estuary, Porton Down, Dyfi Estuary / Aber Dyfi, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal, Breckland, The Oa, Humber Estuary, Oronsay and South Colonsay, Renfrewshire Heights, Strath Carnaig and Strath Fleet Moors, Slamannan Plateau, Belfast Lough Open Water, Copeland Islands, West Inverness-shire Lochs, Cairngorms Massif, Foinaven,

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Glen Affric to Strathconon, Glen Etive and Glen Fyne, Jura, Scarba and the Garvellachs, Moidart and Ardgour, Upper Nene Valley Gravel Pits.
Lostock	EfW Incineration	Consented	Electricity Act (S36)	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast.
Runcorn EfW	EfW Incineration	Operational	Electricity Act (S36)	**No foreseeable interaction:** The Dee Estuary, Dyfi Estuary / Aber Dyfi, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal, Slamannan Plateau, Belfast Lough Open Water, Copeland Islands, West Inverness-shire Lochs, Cairngorms Massif, Foinaven, Glen Affric to Strathconon, Glen Etive and Glen Fyne, Jura, Scarba and the Garvellachs, Moidart and Ardgour, Upper Nene Valley Gravel Pits.
Little Cheyne Court Wind Farm	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction:** Porton Down, Dyfi Estuary / Aber Dyfi, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal, Anagach Woods, Antrim Hills, Slieve Beagh - Mullaghfad - Lisnaskea, Breckland, The Oa, Humber Estuary, Oronsay and South Colonsay, Renfrewshire Heights, Strath Carnaig and Strath Fleet Moors, Slamannan Plateau.
Scout Moor Wind Farm	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction:** Porton Down, Anagach Woods, Antrim Hills, Slieve Beagh - Mullaghfad - Lisnaskea, Breckland, The Oa, Humber Estuary, Oronsay and South Colonsay, Renfrewshire Heights.
Frodsham Marsh	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction:** Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Mersey Narrows and North Wirral Foreshore (*ca*. 20km to the west).
Middlemoor	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction:** The Dee Estuary, Dyfi Estuary / Aber Dyfi, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal, Slamannan Plateau, Belfast

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Lough Open Water, Copeland Islands, West Inverness-shire Lochs, Cairngorms Massif, Foinaven, Glen Affric to Strathconon, Glen Etive and Glen Fyne, Jura, Scarba and the Garvellachs, Moidart and Ardgour, Upper Nene Valley Gravel Pits, Mersey Narrows and North Wirral Foreshore.
Ray Wind Farm	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction (note proximity to sites in Northumberland is >30km)**: Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Northumbria Coast, Upper Nene Valley Gravel Pits, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine.
Fullabrook Down Wind Farm	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction:** The Dee Estuary, Porton Down, Dyfi Estuary / Aber Dyfi, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal, Oronsay and South Colonsay, Renfrewshire Heights, Strath Carnaig and Strath Fleet Moors, Slamannan Plateau, Belfast Lough Open Water, Copeland Islands, West Inverness-shire Lochs, Cairngorms Massif, Foinaven, Glen Affric to Strathconon, Glen Etive and Glen Fyne, Jura, Scarba and the Garvellachs, Moidart and Ardgour, Upper Nene Valley Gravel Pits.
Heckington Fens	Onshore wind	Consented	Electricity Act (S36)	**No foreseeable interaction:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Flamborough and Filey Coast, Hamford Water, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Northumbria Coast, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Greater Wash, Solent and Dorset Coast.
Keadby Wind Farm	Onshore wind	Operational	Electricity Act (S36)	**No foreseeable interaction:** The Dee Estuary, Grassholm, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Dyfi Estuary / Aber Dyfi, Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal, Strath Carnaig and Strath Fleet Moors, Slamannan Plateau, Belfast Lough Open Water, Copeland

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Islands, West Inverness-shire Lochs, Cairngorms Massif, Foinaven, Glen Affric to Strathconon, Glen Etive and Glen Fyne, Jura, Scarba and the Garvellachs, Moidart and Ardgour, Upper Nene Valley Gravel Pits, Mersey Narrows and North Wirral Foreshore.
Offshore (seaward of territorial waters)				
Greater Gabbard	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), The Dee Estuary (N), Grassholm (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island (N), Porton Down (N), Flamborough and Filey Coast (Y), Hamford Water (N), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal (N), The Oa (N), Humber Estuary (N), Oronsay and South Colonsay (N), Renfrewshire Heights (N), Strath Carnaig and Strath Fleet Moors (N), Slamannan Plateau (N), Belfast Lough Open Water (N), Copeland Islands (N), West Inverness-shire Lochs (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (Y), Cairngorms Massif (N), Foinaven (N), Glen Affric to Strathconon (N), Glen Etive and Glen Fyne (N), Jura, Scarba and the Garvellachs (N), Moidart and Ardgour (N), Upper Nene Valley Gravel Pits (N), Mersey Narrows and North Wirral Foreshore (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (N), Solent and Dorset Coast (N).
Rampion	Offshore wind	Active/In Operation	Electricity Act (S36)	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Grassholm (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island (N), Flamborough and Filey Coast (Y), Hamford Water (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (Y), Northumbria Coast (N), Muirkirk and North Lowther Uplands (N), Outer Thames Estuary (N),

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (N)
Dudgeon	Offshore wind	Active/In Operation	Electricity Act (S36)	**None of the following sites are relevant:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Hamford Water, Northumbria Coast, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Falmouth Bay to St Austell Bay, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Northumbria Coast, Muirkirk and North Lowther Uplands, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Solent and Dorset Coast. Flamborough and Filey Coast SPA and Greater Wash SPA are relevant.
Race Bank	Offshore wind	Active/In Operation	Electricity Act (S36)	**None of the following sites are relevant:** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro, Coquet Island, Farne Islands, Grassholm, Anglesey Terns / Morwenoliaid Ynys Môn, Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island, Hamford Water, Northumbria Coast, Mersey Narrows and North Wirral Foreshore, Northern Cardigan Bay / Gogledd Bae Ceredigion, Northumberland Marine, Morecambe Bay and Duddon Estuary, Teesmouth and Cleveland Coast, Crouch and Roach Estuaries (Mid-Essex Coast Phase 3), Poole Harbour, Dungeness, Romney Marsh and Rye Bay, Muirkirk and North Lowther Uplands, Liverpool Bay / Bae Lerpwl, Outer Thames Estuary, Falmouth Bay to St Austell Bay, Irish Sea Front, Solent and Dorset Coast. Flamborough and Filey Coast SPA and Greater Wash SPA considered relevant to review.
Galloper	Offshore wind	Active/In Operation	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Grassholm (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Glannau Aberdaron ac Ynys Enlli/

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Aberdaron Coast and Bardsey Island (N), Hamford Water (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (Y), Mersey Narrows and North Wirral Foreshore (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (N), Flamborough & Filey Coast (Y), Teesmouth & Cleveland Coast (N), Solent & Dorset Coast (N).
Hornsea Project Two	Offshore wind	Consented	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (Y), Hamford Water (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (N, site features: red-throated diver, little tern, common tern), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (Y - for export cabling), Teesmouth and Cleveland Coast (N).
East Anglia Three	Offshore wind	Consented	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Flamborough and Filey Coast (Y), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (Y), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (Y), Solent and Dorset Coast (N).
Walney Extension	Offshore wind	Active/In Operation	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (Y), Coquet Island (N), Farne Islands (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (N), Hamford Water (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast(N), Muirkirk and North Lowther Uplands(N), Liverpool Bay / Bae Lerpwl (Y), Outer Thames Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N),

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Northumberland Marine (N), Morecambe Bay and Duddon Estuary (Y), Falmouth Bay to St Austell Bay (N), Irish Sea Front (Y), Greater Wash (N), Teesmouth & Cleveland (N), Solent & Dorset (N), Flamborough & Filey Coast (N)
Dogger Bank C	Offshore wind	Consented	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (Y), Farne Islands (Y), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (Y), Hamford Water (N), Teesmouth and Cleveland Coast (Y), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (Y), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (N), Solent and Dorset Coast (N)
Sofia	Offshore wind	Consented	Planning Act 2008	
Dogger Bank A	Offshore wind	Consented	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (Y), Farne Islands (Y), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (Y), Hamford Water (N), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast, Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (Y), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (Y – for export cable), Solent and Dorset Coast (N).
Dogger Bank B	Offshore wind	Consented	Planning Act 2008	
Hornsea Project One	Offshore wind	Active/In Operation	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (Y), Farne Islands (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Flamborough and Filey Coast (Y), Hamford Water (N), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames

Project Name	Project Type	Status	Type of consent	Sites initially identified in relevant date range and summary consideration
				Estuary (N), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (Y), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (Y - for cabling, but note this is complete), Solent and Dorset Coast (N).
East Anglia One	Offshore wind	Under Construction	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Skomer, Skokholm and the Seas off Pembrokeshire / Sgomer, Sgogwm a Moroedd Penfro (N), Coquet Island (N), Farne Islands (N), Grassholm (N), Anglesey Terns / Morwenoliaid Ynys Môn (N), Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island (N), Flamborough and Filey Coast (Y), Hamford Water (Y - cable corridor), Teesmouth and Cleveland Coast (N), Crouch and Roach Estuaries (Mid-Essex Coast Phase 3) (N), Poole Harbour (N), Dungeness, Romney Marsh and Rye Bay (N), Northumbria Coast (N), Dyfi Estuary / Aber Dyfi (N), Muirkirk and North Lowther Uplands (N), Liverpool Bay / Bae Lerpwl (N), Outer Thames Estuary (Y - cable corridor), Northern Cardigan Bay / Gogledd Bae Ceredigion (N), Northumberland Marine (N), Morecambe Bay and Duddon Estuary (N), Falmouth Bay to St Austell Bay (N), Irish Sea Front (N), Greater Wash (Y), Solent and Dorset Coast (N).
Triton Knoll	Offshore wind	Under Construction	Planning Act 2008	**Sites classified in date range include (potential interaction identified N/Y):** Glannau Aberdaron ac Ynys Enlli/ Aberdaron Coast and Bardsey Island (N), Flamborough and Filey Coast (Y).

Appendix 2: Transboundary sites

Table A2. 1: Transboundary sites selected on the basis of a potential interaction with a consent, based on their classification date

Project	Site code	Site	Selected features (those within foraging range)
Gunfleet Sands I	DE0916491	Ramsar-Gebiet S-H Wattenmeer und angrenzende Küstengebiete	Fulmar
	FR5212013	Mor Braz	Manx shearwater
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
	DE1011401	SPA Östliche Deutsche Bucht	Fulmar (wintering)
	FR5310011	Côte de Granit Rose-Sept Iles	Manx shearwater
	FR5310074	Baie de Vilaine	Manx shearwater
	DE1813491	Seevogelschutzgebiet Helgoland	Fulmar
	DE0916491	Ramsar-Gebiet S-H Wattenmeer und angrenzende Küstengebiete	Fulmar (wintering)
	FR2510099	Falaise du Bessin Occidental	Fulmar
	FR2510037	Chausey	Manx shearwater
	FR5310072	Ouessant-Molène	Manx shearwater
	FR2510047	Baie de Seine occidentale	Fulmar
	FR5310057	Archipel de Glénan	Manx shearwater
	FR3110085	Cap Gris-Nez	Fulmar

Project	Site code	Site	Selected features (those within foraging range)
	FR2512001	Littoral augeron	Manx shearwater
Gunfleet Sands II	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
Gunfleet Sands Demo	n/a	n/a	None identified
Kentish Flats	DE1011401	SPA Östliche Deutsche Bucht	Fulmar
	DE1813491	Seevogelschutzgebiet Helgoland	Fulmar
	DE0916491	Ramsar-Gebiet S-H Wattenmeer und angrenzende Küstengebiete	Fulmar
	FR2510099	Falaise du Bessin Occidental	Fulmar
	FR2510037	Chausey	Manx shearwater
	FR5310011	Côte de Granit Rose-Sept Iles	Fulmar, Manx shearwater
	FR5310072	Ouessant-Molène	Manx shearwater
	FR5310095	Cap d'Erquy-Cap Fréhel	Fulmar
	FR2510047	Baie de Seine occidentale	Fulmar, gannet
	FR5310057	Archipel de Glénan	Manx shearwater
	FR5310074	Baie de Vilaine	Manx shearwater
	FR3110085	Cap Gris-Nez	Fulmar, kittiwake, guillemot, razorbill

Project	Site code	Site	Selected features (those within foraging range)
	FR2512001	Littoral augeron	Gannet, Manx shearwater
Kentish Flats Extension	FR2310045	Littoral seino-marin	Fulmar, gannet, Manx shearwater
London Array	FR3112006	Bancs des Flandres	Guillemot, gannet, fulmar, kittiwake, razorbill
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
Thanet	FR3112006	Bancs des Flandres	Guillemot, gannet, fulmar, kittiwake, razorbill
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
Greater Gabbard	FR3112006	Bancs des Flandres	Guillemot, gannet, fulmar, kittiwake, razorbill
	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR2310045	Littoral seino-marin	Fulmar, gannet, Manx shearwater

Project	Site code	Site	Selected features (those within foraging range)
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
	FR2512005	Nord Bretagne DO	Fulmar, Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
	FR7212013	Estuaire de la Bidassoa et baie de Fontarabie	Manx shearwater
Scroby Sands	n/a	n/a	None identified
Sheringham Shoal	FR3112006	Bancs des Flandres	Gannet, fulmar
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
Lincs	FR3112006	Bancs des Flandres	Gannet, fulmar
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
Dudgeon	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2310045	Littoral seino-marin	Fulmar, Manx shearwater

Project	Site code	Site	Selected features (those within foraging range)
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Race Bank	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2310045	Littoral seino-marin	Fulmar, Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Humber Gateway	FR2310045	Littoral seino-marin	Fulmar, Manx shearwater
Westermost Rough	FR2310045	Littoral seino-marin	Fulmar, Manx shearwater
Lynn	DE1813491	Seevogelschutzgebiet Helgoland	Fulmar
	DE0916491	Ramsar-Gebiet S-H Wattenmeer und angrenzende Küstengebiete	Fulmar
	FR2510099	Falaise du Bessin Occidental	Fulmar
	FR2510037	Chausey	Manx shearwater
	FR5310072	Ouessant-Molène	Manx shearwater
	FR2510047	Baie de Seine occidentale	Fulmar
	FR5310057	Archipel de Glénan	Manx shearwater
	FR3110085	Cap Gris-Nez	Fulmar
	FR2512001	Littoral augeron	Manx shearwater
Inner Dowsing	DE1011401	SPA Östliche Deutsche Bucht	Fulmar

Project	Site code	Site	Selected features (those within foraging range)
	FR5310011	Côte de Granit Rose-Sept Iles	Manx shearwater
	FR5310074	Baie de Vilaine	Manx shearwater
	DE1813491	Seevogelschutzgebiet Helgoland	Fulmar
	DE0916491	Ramsar-Gebiet S-H Wattenmeer und angrenzende Küstengebiete	Fulmar
	FR2510099	Falaise du Bessin Occidental	Fulmar
	FR2510037	Chausey	Manx shearwater
	FR5310072	Ouessant-Molène	Manx shearwater
	FR2510047	Baie de Seine occidentale	Fulmar
	FR5310057	Archipel de Glénan	Manx shearwater
	FR3110085	Cap Gris-Nez	Fulmar
	FR2512001	Littoral augeron	Manx shearwater
Teesside	FR3112006	Bancs des Flandres	Fulmar
	FR5312011	Iles Houat-Hoëdic	Manx shearwater
	FR5212013	Mor Braz	Manx shearwater
	FR5212015	Secteur marin de l'île d'Yeu jusqu'au continent	Manx shearwater
	FR5312009	Roches de Penmarc'h	Manx shearwater
Galloper	FR2310045	Littoral seino-marin	Gannet, fulmar, kittiwake, razorbill, Manx shearwater
	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater

Project	Site code	Site	Selected features (those within foraging range)
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Hornsea Project Two	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Hornsea Project Three	n/a	n/a	n/a
East Anglia Two	n/a	n/a	n/a
East Anglia Three	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Rampion	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater

Project	Site code	Site	Selected features (those within foraging range)
Dogger Bank - Teesside A	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Dogger Bank - Teesside B (Sofia)	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Hornsea One	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
East Anglia One	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater
	FR5210103	Estuaire de la Loire	Manx shearwater
Triton Knoll	FR2310045	Littoral seino-marin	Fulmar, Manx shearwater
	FR5212016	Mers Celtiques - Talus du golfe de Gascogne	Manx shearwater
	FR5412026	Pertuis charentais - Rochebonne	Manx shearwater
	FR2512005	Nord Bretagne DO	Manx shearwater

Project	Site code	Site	Selected features (those within foraging range)
	FR5210103	Estuaire de la Loire	Manx shearwater
Walney 2	IE0004113	Howth Head Coast SPA	Fulmar
	IE0004100	Inishtrahull SPA	Fulmar
	IE0004117	Ireland's Eye SPA	Fulmar
	IE0004144	High Island, Inishshark and Davillaun SPA	Manx shearwater
	IE0004122	Skerries Islands SPA	Fulmar
Walney 1	IE0004113	Howth Head Coast SPA	Fulmar
	IE0004100	Inishtrahull SPA	Fulmar
	IE0004117	Ireland's Eye SPA	Fulmar
	IE0004144	High Island, Inishshark and Davillaun SPA	Manx shearwater
	IE0004122	Skerries Islands SPA	Fulmar
West of Duddon Sands	IE0004100	Inishtrahull SPA	Fulmar
	IE0004117	Ireland's Eye SPA	Fulmar
	IE0004122	Skerries Islands SPA	Fulmar
Barrow	IE0004175	Deenish Island and Scariff Island SPA	Fulmar, Manx shearwater
Ormonde	IE0004100	Inishtrahull SPA	Fulmar
	IE0004117	Ireland's Eye SPA	Fulmar
	IE0004122	Skerries Islands SPA	Fulmar
Rhyl Flats	IE0004113	Howth Head Coast SPA	Fulmar

Project	Site code	Site	Selected features (those within foraging range)
	IE0004100	Inishtrahull SPA	Fulmar
	IE0004117	Ireland's Eye SPA	Fulmar
	IE0004150	West Donegal Coast SPA	Fulmar
	IE0004154	Iveragh Peninsula SPA	Fulmar
	IE0004122	Skerries Islands SPA	Fulmar
	IE0004192	Helvick Head to Ballyquin SPA	Fulmar
	IE0004194	Horn Head to Fanad Head SPA	Fulmar
	IE0004155	Beara Peninsula SPA	Fulmar
	IE0004156	Sheep's Head to Toe Head SPA	Fulmar
	IE0004175	Deenish Island and Scariff Island SPA	Manx shearwater
	IE0004170	Cruagh Island SPA	Manx shearwater
	IE0004190	Galley Head to Duneen Point SPA	Fulmar
Gwynt y Môr	IE0004100	Inishtrahull SPA	Fulmar
	IE0004117	Ireland's Eye SPA	Fulmar
	IE0004122	Skerries Islands SPA	Fulmar
Burbo Bank Extension	n/a	n/a	n/a
Burbo Bank	IE0004150	West Donegal Coast SPA	Fulmar
	IE0004154	Iveragh Peninsula SPA	Fulmar

Project	Site code	Site	Selected features (those within foraging range)
	IE0004192	Helvick Head to Ballyquin SPA	Fulmar
	IE0004194	Horn Head to Fanad Head SPA	Fulmar
	IE0004155	Beara Peninsula SPA	Fulmar
	IE0004156	Sheep's Head to Toe Head SPA	Fulmar
	IE0004190	Galley Head to Duneen Point SPA	Fulmar

Appendix 3: Consultation feedback

Introduction

Public consultation was held on a draft of the review of consents HRA screening report between August and October 2020[37]. The following consultation questions were asked:

1. Do you have any comments on the list of individual Special Protection Area conservation sites which have been screened as part of this review?

2. Do you have any comments on the list of individual project consents which have been screened as part of this review?

3. Do you have any comments on the criteria used in the screening of projects for Likely Significant Effects on individual Special Protection Area conservation sites?

4. Do you have any comments on the projects which this review has screened in as requiring the next stage of Habitats Regulations Assessment, that is Appropriate Assessment?

5. Do you have any comments or additions to the information needs identified in the review that would make the Appropriate Assessment exercise more robust?

Feedback was received from 12 organisations, which included a range of statutory nature conservation bodies (SNCBs), industry, and industry representative organisations, which were:

- Natural England (NE)
- Natural Resources Wales (NRW)
- Joint Nature Conservation Committee (JNCC)
- Royal Society for the Protection of Birds (RSPB)
- Scottish Power Renewables (SPR)
- Vattenfall
- Dogger Bank Offshore Wind Farm (SSE Renewables and Equinor)
- EDF
- Dudgeon Offshore Wind Farm (Equinor)
- Ørsted
- RenewableUK
- The Law Society

[37] https://www.gov.uk/government/consultations/review-of-consents-for-major-energy-infrastructure-projects-and-special-protection-areas

Three virtual workshops were also held during the consultation period. Each workshop had the same format and content, which involved a presentation of the purpose of the review of consents, the HRA process, and methods for HRA screening. The workshops were attended by a total of 54 individuals representing SNCBs, industry, and industry representative organisations and members of the public.

The screening document was subsequently modified, where relevant, to take account of the feedback received formally through written responses and via the workshops. The following sections document this feedback and how it has been addressed.

Written feedback

The following summarises the written feedback received during the consultation. Some of the written feedback does not directly respond to the consultation questions asked. These are initially considered under general feedback, below, with responses to the questions addressed thereafter.

Feedback	BEIS response
General Comments	
The Law Society	
The respondent referred to the Court of Justice of the European Union (CJEU) judgment in People Over Wind & Sweetman v. Coillte Teoranta (C-323/17), such that mitigation cannot be considered during HRA screening, and noted that care should be taken when relying on previous conclusions from HRAs which pre-dated the judgement.	Where post-consent HRAs are referred to which have effectively reviewed consents for certain sites, those post-dating the judgement referred to do not make reference to mitigation at the screening stage.
Clarity was requested in relation to post-transition measures (i.e. following UK exit from the EU), and clarification on proposed next steps and timescales, including any likely future consultations	The *European Union (Withdrawal) Act 2018* confirms that the body of EU law (which includes the Habitats Directive) transposed into UK legislation at the time that the UK exits the EU will be retained, such that it will continue to have effect in domestic law on and after exit day.
Renewable UK	
Noted that lessons learned from the Southern North Sea SAC Review of Consents should be taken into account, and that uncertainty can pose a risk to projects.	Additional information has been provided in Section 6 covering the expected timing of the AA process.
JNCC, NRW	
Understand that some smaller size projects have now moved from BEIS as a regulator to e.g. MMO or NRW and will therefore not be considered in the RoC. We recommend that a full list of these projects is provided.	Projects which are now the responsibility of another authority have been listed in Appendix 1.
Reference to sites conservation objectives is required to provide context.	Noted. Site conservation objectives have been reproduced for each relevant site in Section 4.

Feedback	BEIS response
1. Do you have any comments on the list of individual Special Protection Area conservation sites which have been screened as part of this review?	
NRW	
NRW is content with the list of offshore sites that was screened as part of this draft RoC.	Noted. Individual comments on the features of Liverpool Bay SPA are considered below.
NE	
Natural England is content that those SPAs subject to the screening are the appropriate sites and reflect the discussions between BEIS and Natural England in August 2019 and again in June/July 2020.	Noted.
RSPB	
It has proven difficult to respond sensibly to this question, given the lack of information on the date of relevant SPA designations (new, reclassified or extended sites) so we could sensibly evaluate.	The classification dates are publicly available via datasets referred to in the screening document. The consent and completion dates of the relevant projects were provided in Appendix 1.
2. Do you have any comments on the list of individual project consents which have been screened as part of this review?	
EDF	
We welcome the inclusion of Blyth Phase 1. However, the full consent for Blyth offshore demonstrator should also be included to prevent an unnecessary assessment in the future.	Following clarifications during the consultation process, these consents will not be reviewed by BEIS as they are below BEIS's consenting threshold (100MW).
Ørsted	
Ørsted accepts the assessment criteria (including buffers and quantitative parameters) for the purposes of this review in order to provide a coarse initial filter. However, this should not prejudice future assessments where there is additional evidence in relation to a specific project or site.	Noted.
For transparency purposes Ørsted requests that specific justification for each LSE should be provided in the relevant Site Assessment text boxes (Section 4) for each special protection area ("SPA")/project combination.	It is considered that sufficient information is available from that given in Section 2 (consent/SPA identification), Section 3 (screening criteria) and Section 4 (the LSE assessment), to understand why each consent has been screened in or out for AA. The tables in Section 4 have been reviewed to ensure this is clear.
Ørsted requests that BEIS permits further consultation on any amendments to the screening document that may arise as a result of the current consultation before moving onto the Appropriate Assessment stage.	BEIS do not intend to hold subsequent rounds of consultation on the screening report. Opportunities to engage further with the process will be available at the AA stage.
JNCC, NE	

Feedback	BEIS response
Race Bank wind farm falls within the Greater Wash SPA, with potential to interact with the qualifying features of the site (Red-throated diver, Sandwich tern, Little gull); however, this wind farm/SPA combination was not considered in the draft RoC.	The Race Bank/Greater Wash SPA combination has now been considered (see Table 1) and will be taken forward to the AA.
Dogger Bank Offshore Wind Farm (SSE and Equinor)	
As stated in our letter to BEIS on the 28th August 2020, the Screening Report needs to be updated to make it clearer that the Review of Consents for Dogger Bank A & B in relation to the Flamborough and Filey Coast (FFC) SPA has already been completed through the approved non-material change application. As such, the Dogger Bank A & B consents will not be subject to review with regards to the FFC SPA.	It has now been made clear in Table 1 of the document that the Flamborough and Filey Coast SPA will not be considered in this review for the Dogger Bank A, B and C wind farms. BEIS would like to draw attention to the inclusion of additional SPA features for these consents on the basis of advice provided by SNCBs during the consultation (specifically the use of mean maximum foraging ranges + 1 standard deviation) – refer to Table 1.
3. Do you have any comments on the criteria used in the screening of projects for Likely Significant Effects on individual Special Protection Area conservation sites?	
JNCC, NRW, RSPB	
For all SPA qualifying features, the mean of the maximum foraging ranges reported in Woodward et al. (2019) was used as a screening tool to identify those SPAs in scope for the LSE test. The current SNCB position is for screening approaches to use the mean-max + 1SD (standard deviation), with a check that this is suitably precautionary in light of any site specific evidence that may be available.	The screening criteria (Section 3) has been amended, such that the mean maximum foraging range (+1SD) is used.
NRW, NE	
NRW is concerned that impacts on non-breeding birds from breeding seabird SPAs are not considered at the LSE stage, and are only referred to in the context of the Appropriate Assessment. Impacts on non-breeding birds (in the breeding season as well as in the non-breeding season) make a significant contribution to the current in-combination totals for some key receptors.	A follow-up meeting was held with NRW, JNCC and NE which included discussion of how non-breeding impacts could be realistically considered at the screening stage. The conclusion of the discussion was that the consideration of non-breeding impacts would be best considered at the AA stage, and that text would be added to the screening document to reflect this (refer to Section 6.3).
RSPB	
The RSPB notes that the references used (Wright & Austin 2012, Wright et al. 2012) are a bit dated and will be updated fairly soon. Any updated version should be used at the appropriate assessment stage.	Noted.
SPR	

Feedback	BEIS response
We agree with the approach to limit relevance of Manx shearwater SPAs located in Wales and Ireland only to projects located in the Irish Sea/Bristol Channel. We agree that using a mean maximum foraging range (for example Manx shearwater's 1,346.8 ± 1,018.7km) would be overly precautionary and result in an excessive number of sites requiring Appropriate Assessment. We feel that use of mean foraging range is proportionate but still precautious in this first identification of sites in the Review of Consents process.	Noted, however, refer to the revised screening criteria in Section 3.
In regards to West of Duddon Sands, we welcome the opportunity to present further information…which we believe should result in the affirmation of the West of Duddon Sands consent in the final Screening Report.	Additional information was provided by SPR to support their conclusions that an LSE could be discounted for The Dee Estuary (extension), Copeland Islands, Aberdaron Coast and Bardsey Island (extension) and Grassholm. While this information is noted, the approach to screening for LSE adopted for the review of consents HRA is set out in Section 3.
NE	
Using the mean maximum foraging range (as published in Woodward et al. 2019) at the LSE stage risks some sites being excluded when they may contribute to mortality totals, and therefore is not suitably precautionary. Instead, we advise that the maximum foraging range may be a more appropriate coarse screening tool. We note that the approach taken by NIRAS in the Round 4 HRA screening process is to use mean maximum foraging range plus an additional 1 standard deviation. Examination of the Woodward database for certain key species revealed that across these species, on average 86% of colonies have maximum foraging ranges that are below the mean maximum+ 1sd. That means on average 14% of colony maximum values exceed that of the mean maximum + 1sd. This is pretty much what you would expect if the distributions of maximum foraging ranges across colonies are normally distributed (i.e. 16%). If the colonies in the database are representative, we can estimate that, on average across species, 86% of all colonies would be correctly screened in as having connectivity with a development area within that mean maximum foraging range + 1sd distance of them. However, it follows that 14% of colonies further away could be wrongly screened out i.e. 1 in 7. That is not suitably precautionary for LSE screening in isolation, and would need to be considered as just the first (generically applied) step in the process and subject to a case-by-case sense check depending upon the species, the locations of its colonies, and the location of any planned	As noted above, the revised approach has been to take the mean maximum foraging range +1SD as the basis to screen in breeding seabird features.

Feedback	BEIS response
development. Therefore it may be more straight-forward to use the maximum foraging range.	
4. Do you have any comments on the projects which this review has screened in as requiring the next stage of Habitats Regulations Assessment, that is Appropriate Assessment?	
JNCC	
The Outer Thames Estuary SPA. In light of available evidence (citations provided) and previous advice from both JNCC and the SNCBs on AEOI for this site, we consider that this site should be taken forward to the Appropriate Assessment stage.	The reasons for the red-throated diver feature of the Outer Thames Estuary SPA not being subject to AA were set out in the draft screening report. These were that; the site had been subject to previous assessment (including a previous review of consents for this site undertaken in 2012) as part of project consenting, or did not fall within the relevant screening criteria. This has been documented clearly in Table 1 of the revised screening document.
Greater Wash SPA. While this SPA has been taken through to the Appropriate Assessment stage, we note that this is only on the basis of impacts from cable installation from Dogger Bank A & B. As with the Outer Thames Estuary SPA and Liverpool Bay SPA, we advise that in-combination assessments consider other sources of disturbance and displacement on Red-throated diver for this site, for example shipping activities from other sectors.	As noted above, it has been clarified in Section 5 of the revised screening report that a greater range of sectors will be considered, in-combination, at the AA stage.
JNCC, NRW	
Liverpool Bay SPA. In light of available evidence (citations provided) and previous advice from both JNCC and the SNCBs on AEOI for this site, we consider that this site should be taken forward to the Appropriate Assessment stage.	For the same reasons noted above, the red-throated diver feature of this site has been subject to previous assessment, and is clarified in notes given in Table 1, where appropriate.
More justification is needed as to why Gwynt-y-Môr, Walney, Walney 2 and West of [Duddon Sands] (Electricity Act), which were all consented before the SPA classification in 2010 (for which Red-throated diver was a qualifying feature) are not in scope	The 2010 site classification boundary for red-throated diver was not within the screening criteria set out in Section 3 in relation to Walney and Walney 2, and these are therefore not considered to be in scope for the 2010 classification. Gwynt-y-Môr and West of Duddon Sands both considered the Liverpool Bay when it was a pSPA, with a conclusion of no likely significant effect. However, in view of overwhelming evidence to support the displacement of divers beyond the footprint of the wind farm, which was not assessed in the former HRA of the pSPA in relation to Gwynt-y-Môr, the site will be reconsidered for this consent in the review.
The original Red-throated diver SPA qualifying feature, and not only the added features following re-classification, should be considered when assessing wind farm effects on Liverpool Bay SPA.	As noted above, and to clarify the approach of the review of consents, it is not intended that previous HRA conclusions be reviewed but rather that the review process consider those additional

Feedback	BEIS response
	features/sites of relevance for projects which can now be reviewed.
It was noted that only offshore wind farm projects had been identified in the in-combination assessment part of the screening report. Other relevant sectors were noted, for example, shipping activities from oil & gas developments, cabling and aggregate extraction, in particular in relation to the red-throated diver feature of Liverpool Bay SPA, the Outer Thames Estuary SPA and the Greater Wash SPA. It was recommended that BEIS consult with MMO and other regulators to confirm a full list of other activities and developments which need to be considered in combination with the offshore wind projects.	The list of project types which will be considered in-combination with those identified to be subject to AA has been expanded (Section 5). Other regulators may be consulted at the AA stage to ensure that the in-combination assessment undertaken includes the most recent set of relevant projects.
NE	
We note that Northumberland Marine SPA, whilst in the original spreadsheet, and is referred to in the pre-screening stage (p19) with respect to Blyth ODL, does not appear in the LSE test section and we advise this needs justifying. Blyth ODL is the only project that could interact with this SPA, which protects the tern foraging areas and auk maintenance zones from 4 coastal SPAs – Lindisfarne, Northumbria Coast, Farne Islands, Coquet Island.	It was clarified during the consultation that BEIS cannot review the consents for the Blyth developments.
Walney Extension/Liverpool Bay SPA – the project lies adjacent to the extended Liverpool Bay SPA and has the potential to impact on little gull transiting into/out of the SPA. It is unclear why this OWF/SPA/feature combination has not been screened in.	Noted. The little gull/Walney Extension site/project combination has now been screened in.
Suggest other wind farms within/adjacent to Liverpool Bay SPA should also be screened in e.g. Burbo Bank extension.	Note that only those projects/SPA combinations that fulfil the remit set out in Section 2 can be reviewed.
We advise that Gwynt y Môr OWF is included as a project to be assessed. Red throated diver should be included as one of the relevant features to assess. Although we acknowledge this is not a recently added feature, due to the fact that the evidence base relating to red throated diver displacement has evolved we advise that this feature should be assessed.	Gwynt y Môr will be considered in relation to the red-throated diver feature of Liverpool Bay SPA, as noted in Section 2 and below.
Greater Gabbard/Outer Thames Estuary SPA – whilst we recognise that this is an Electricity Act consent, it is both partly beyond 12nm and within 10km of the Outer Thames Estuary SPA. In this context it does seem somewhat perverse to not consider it at the LSE screening stage for this site, given its potential influence on red-throated diver distribution within the SPA.	Note that Greater Gabbard was considered as part of a previous review of consents in 2012 for the red-throated diver feature of the Outer Thames Estuary SPA. This has been clarified in Table 1.

Feedback	BEIS response
Outer Thames Estuary SPA – it is of concern that OTE SPA is not proposed to be taken forward to Appropriate Assessment. Natural England already considers that AEOI cannot be ruled out for red throated diver from the Outer Thames Estuary SPA. We are concerned that the in-combination assessment does not include some projects that are currently in the planning system, for example EA1N and EA2. The evidence base around the extent of red throated diver displacement has increased considerably in the last two years, and displacement distances are much greater than previously understood. In addition, Natural England's Conservation Advice package for the Outer Thames Estuary SPA has been updated recently (September 2019). Therefore we strongly advise that this site is taken through to Appropriate Assessment.	As stated above, BEIS have limited the review to those consents and sites/features for which it has the remit to review, and considered should be reviewed, in the absence of former assessment for particular sites. The HRA processes for those projects in planning, and any potential projects that may come forward from further leasing, will need to consider the potential for LSE and AEOI on their own merits. BEIS do not wish to prejudice those assessments in the review process.
Natural England considers that reviewing the impacts of consented proposals on Sandwich tern is of particular importance, given Natural England's ongoing concerns about the consented level of impact on this species and recent information from tracking studies regarding Sandwich tern foraging range and behaviour.	Noted. Sandwich terns will be considered for the following SPAs: Greater Wash SPA, Morecambe Bay and Duddon Estuary, the Dee Estuary Extension, Anglesey Terns and, Dungeness, Romney Marsh and Rye Bay. Refer to Table 1.
Dudgeon/Greater Wash SPA – whilst some distance from the Greater Wash SPA, this OWF has the potential to affect Sandwich tern and little gull through collision.	Following the revised breeding seabird foraging range criterion, Sandwich tern will be considered for the Greater Wash SPA/Dudgeon site/consent combination.
We advise that ALL relevant existing features for those SPAs screened are assessed to ensure assessments are more robust (see table below).	As noted elsewhere, BEIS do not intend to revisit former HRA decisions for site features previously assessed. The approach taken has been to consider the reasons for, and related features of, site re-classification.
RSPB	
Copeland Islands: Please set out the justification for omitting Arctic tern.	The closest relevant consent (Walney Extension; 120km) was at too great a distance to be considered relevant, in view of the breeding foraging range for the species (25.7±14.8km).
Aberdaron Coast and Barsdey Coast: We have concerns in relation to the treatment of Manx shearwaters in relation to the Burbo Bank Extension, which is well within this species foraging range. We note the reference to the conclusion of the Burbo Bank Extension HRA in relation to the then pSPA.	BEIS do not intend to reconsider former HRA conclusions. The remit of the review of consents and its related HRA process are set out in Sections 1 and 2.
Irish Sea Front: We suggest that the Burbo Bank Extension is relevant to this SPA, given that the Burbo Bank Extension project has been screened in against some of the natal colony SPAs linked to the Irish Sea Front SPA.	The remit of the review of consents and its related HRA process are set out in Sections 1 and 2, such that Burbo Bank Extension cannot be reviewed against the Irish Sea Front SPA.

Feedback	BEIS response
Grassholm: We query the rationale to reject Burbo Bank Extension from screening in with respect to its potential effects on breeding gannets. We consider the description of the consideration given to gannet at the various SPA designation stages to have been poor in light of the species foraging range.	Noted, however, Grassholm SPA will not be considered in the review of consents for those reasons indicated above and set out in Section 2.
Liverpool Bay: Based on the classification date of the SPA (2010), we consider the following projects should be reconsidered for screening in: Gwynt-y-Mor: consented in 2008 but not completed until 2013, so it appears to be in the relevant time window as the SPA was classified after consent but before completion; Rhyl Flats: for operational impacts only, as it was constructed before the SPA was classified. Set out the justification for omitting common tern in respect of Walney Extension.	Liverpool Bay SPA was considered as a pSPA in the HRA for Gwynt y Môr, however, in view of overwhelming evidence to support the displacement of divers beyond the footprint of the wind farm, which was not assessed in the former HRA of the pSPA, the site will be reconsidered for this consent in the review. It was clarified during the consultation process that Rhyl Flats cannot be reviewed as the consenting authority for the project is no longer BEIS. In view of the accepted revision of the screening criteria (mean maximum +1SD), common tern has been screened in for Walney Extension, in relation to Liverpool Bay SPA.
Mersey Narrows and Wirral Foreshore: Set out the justification for omitting common tern in respect of Gwynt-y-Mor.	As noted above, in view of the accepted revision of the screening criteria (mean maximum +1SD), common tern has been screened in for this SPA/consent combination.
Anglesey Terns: We have spotted an error in the "LSE" column of this account. While the text correctly states that breeding terns have been screened in for the Anglesey Biomass Power Station, the table incorrectly states they have not.	Noted. Like certain other consents, it has been clarified that this project cannot be reviewed by BEIS – see Appendix 1.
Morecambe Bay and Duddon Estuary: Sandwich terns should be screened in with respect to the Burbo Bank Extension.	As above, this site feature/consent combination has now been screened in.
Flamborough and Filey Coast: We consider five SPA features (gannet, kittiwake, razorbill, guillemot and the associated seabird assemblage) are within foraging range for most, if not all, projects. e.g. guillemot and razorbill will be relevant to Race Bank and Dudgeon.	
Greater Wash: We are confused by this account which includes little tern in its consideration but, with no justification, excludes Sandwich tern. These projects are all likely to be within foraging range of Sandwich tern. Please provide a justification for excluding Sandwich tern.	Noted, the wording of this section has been reviewed and amended appropriately, in addition to other changes resulting from the use of the revised foraging range screening criterion.
Natural England	
Natural England considers the following additional site/feature combinations should be screened in:	Please refer to the above clarifications in relation to Liverpool Bay and the Outer Thames Estuary. It is

Feedback	BEIS response
Site / Feature(s) Liverpool Bay / Red-throated diver, little gull Farne Islands / Guillemot, puffin (seabird assemblage component) Coquet Island / Puffin (seabird assemblage component) Flamborough & Filey Coast / Gannet, guillemot, razorbill, puffin (seabird assemblage component) Greater Wash / Red-throated diver, Sandwich tern, little gull Outer Thames Estuary / Red-throated diver	accepted that, in keeping with the revised foraging range criterion, those sites and related features listed will be included for certain consents. Their inclusion is noted in Section 2 – refer to Table 1.
Ørsted	
Ørsted has reviewed all conclusions of LSE identified in relation to Ørsted assets. For each SPA/Ørsted asset combination, Ørsted has provided additional information that should be used to inform the final Screening Report. It is Ørsted's view that the below table provides adequate information to determine no LSE for the below sites covered by the report.	In view of the approach to the screening stage, as set out in Section 3, a determination of no LSE cannot be made at this time for the relevant consents.
Ørsted, SPR	
it is Ørsted's opinion that both Grassholm and Aberdaron Coast and Bardsey Island (extension) SPA are not applicable in relation to West of Duddon Sands Offshore Wind Farm due to the date of commencement of generation in relation to the extension date of the SPAs. West of Duddon Sands wind farm's earliest scheduled date of energisation was 18 December 2013, and it began metered system transmission to the grid in January 2014.	On review, first generation is noted to be 28th January 2014. On this basis, Grassholm and Aberdaron Coast and Bardsey Island are considered to be out of scope for West of Duddon Sands.
Equinor	
For Dudgeon, the SPAs identified are Flamborough and Filey Coast and the Outer Thames Estuary. The reference to the Outer Thames Estuary seems to be an error and it appears that the site that should be referred to in Table 1 is the Greater Wash SPA.	This has now been corrected. Refer to Table 1 and Section 4 for the revised conclusions of the screening report.
For Flamborough and Filey Coast, confirm the species which are to be considered for Dudgeon.	In view of the revised screening criteria, the species of relevance are gannet, kittiwake, guillemot, razorbill, puffin (as an assemblage feature).
Dudgeon OWF was consented in 2012 and became operational in 2017, before the Flamborough and Filey Coast was classified in 2018 as an extension to the previous Flamborough Head and Bempton Cliffs SPA. The latter SPA was considered but not screened in for	Noted, however, as Dudgeon is on offshore wates, it can be reviewed for Flamborough and Filey Coast irrespective of whether the project completion date was prior to site classification.

Feedback	BEIS response
LSE in relation Dudgeon in the HRA for the original development.	
Equinor provided a range of additional information to support ruling out a likely significant effect for the Flamborough and Filey Coast SPA in relation to Dudgeon.	In view of the approach taken to screening for LSE, as set out in Section 3, the additional information is noted but will not be used at this stage to support the HRA conclusions.
Dogger Bank Offshore Wind Farm (SSE & Equinor)	
Point out inconsistencies in how the criteria have been applied for the Greater Wash SPA, LSE has been ruled out for all wind farms except Dogger Bank A & B, even when there is an overlap between a project and the SPA. A lengthy response with information supporting why a LSE should be ruled out for the Dogger Bank A & B cable installation for the Greater Wash SPA was provided. Request it is clarified which features of the Greater Wash SPA are being screened in for the Dogger Bank A & B project.	The approach to export cables has been reviewed, and reasons for including/excluding certain consents in relation to the Greater Wash SPA is indicated in Table 1. In view of the approach to screening for likely significant effects outlined in Section 3, it is not considered possible to conclude no LSE for this site/project combination, however, such information may be considered at the AA stage.
5. Do you have any comments or additions to the information needs identified in the review that would make the Appropriate Assessment exercise more robust?	
JNCC	
The SNCBs are reviewing appropriate evidence for use within CRM. Discussions with relevant SNCBs may be required at the Appropriate Assessment stage to establish the most appropriate evidence for use within a collision-risk analysis.	Noted.
NRW	
NRW advises that all relevant existing features for those SPAs being screened are assessed.	As noted above, BEIS do not intend to reassess sites for features previously subject to HRA.
Discussions with relevant SNCBs will be essential at the Appropriate Assessment stage to establish the most appropriate evidence for use within a collision-risk analysis.	Noted, the SNCBs will be consulted early in the AA process.
NRW, NE	
Recently consented projects and those in planning should be included for in-combination assessment.	All relevant consented projects will be considered, however, in view of the nature of the review, those in-planning will not be subject to inclusion as BEIS do not wish to prejudice the HRA processes for these projects, which must be undertaken on their own merits.
Permissions from other relevant sectors should also be considered in the in-combination element of the	Section 5 has been amended to reflect that these wider range of project types will be considered in the AA.

Feedback	BEIS response
Appropriate Assessment, in particular those relating to oil and gas exploitation, aggregates and shipping.	
NE	
Natural England has recently published the outputs of a commissioned project to develop a Population Viability Analysis (PVA) to allow users to set-up and run their own PVA models for seabird species without the need for access to specific software. We hope this is of use where the Appropriate Assessment requires PVA modelling.	Noted.
Ørsted	
Section 6 only specifies approaches for the assessment of collision risk and displacement. Although these are likely to be the key impacts to birds, it would be useful to know how other impacts, such as impacts on prey will be addressed. It should be noted that the effects described in 3.2 are not indirect effects on prey, rather they are indirect effects on birds via direct impacts on habitats and prey.	The approach to AA will be further discussed with the SNCBs prior to the assessment being undertaken.
Approach [to use existing information on collision rates as far as possible] is considered to be appropriate, as it relies on existing information that has already been subject to scrutiny, review, consultation and a wealth of site-specific information that may not be available at the strategic assessment level. The section does not explain the details of these adjustment methods.	
[For displacement] it is unclear why a similar approach to that proposed for collision risk assessment is not anticipated, i.e. using existing data, adjusted where required to take account of methodological changes and the final as built characteristics of each project.	Where possible, existing data will be used, as noted in Section 6.
[Approach to apportioning]… is considered to be appropriate and is consistent with project-level HRAs.	The approach to AA will be further discussed with the SNCBs prior to the assessment being undertaken.
It is important to understand how PVA, for example, will be interpreted and whether the approach will be rely on existing interpretations of sustainable levels of additional mortality.	

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