East Anglia TWO and ONE North Offshore Windfarms

Preliminary Environmental Information Report and Habitat Regulations Assessment

Signposting Document

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1 Purpose of this Signposting Document

1. The Preliminary Environmental Information Report (PEIR) for the proposed East Anglia TWO project and the PEIR for the proposed East Anglia ONE North project have been published for Section 42 consultation. East Anglia TWO and East Anglia ONE North are separate projects, each with their own independent PEIR and Section 42 consultation process. It should be noted that this signposting document is intended to serve only as supplementary information to the PEIR and does not form part of the formal package of documentation issued for the Section 42 consultation process.

2. The two projects are in a similar geographical area, are of similar scales and have similar construction methods, in particular for the onshore elements where the projects utilise the same or similar landfall, cable corridor and substation areas. Therefore, many of the designated sites and sensitive receptors that have the potential to be affected by each project's activities are the same as are the anticipated potential environmental impacts.

3. This signposting document has been produced to highlight to the reader where differences occur between the East Anglia TWO and East Anglia ONE North PEIR chapters, and therefore direct the reader to those sections of the individual project documentation.

4. Where there are differences between each PEIR chapter (for example in distances, quantities or potential impacts) these have been outlined in the table corresponding to each chapter or supporting document. This signposting document focuses on the introductory, offshore and onshore elements of PEIR chapters where technical or environmental impact assessment information is presented. In addition, signposting of the Habitats Regulations Assessment (HRA) for each project has been provided. This signposting document does not include a comparison of any PEIR or HRA appendices.

5. This signposting document follows the general structure of the PEIR. ***Section 2*** considers the introductory PEIR chapters and sections ***3***, ***4*** and ***5*** consider the offshore, onshore and wider scheme chapters respectively.

6. Where the only difference between respective sections of each PEIR chapter is the name of the project, this has not been noted (unless to provide context). Therefore, sections within the chapters below marked as 'no difference', all have identical text except where the project is named. Where appropriate, and to

provide context, text has been copied with specific differences between the two documents highlighted in bold.

7. For the impact assessment sections, rather than highlighting every difference in the discussion of potential impacts, the residual effect significance conclusions are given for each impact for the proposed East Anglia TWO and East Anglia ONE North projects. This was done to provide useful context for stakeholders and to draw the reader's attention to any difference in levels of residual significance between the two projects. There is one exception to this in ***section 5.2 Chapter 29 Landscape and Visual Impact*** where this has been simplified to "no difference". This was due to the large number of receptors in this topic, each of which are subject to various impacts and for which it was considered impractical to note the residual significance for each individual receptor and each impact.

8. In some instances, the stated differences between East Anglia TWO and East Anglia ONE North PEIR chapters and HRAs have been simplified within the sections below. This has occurred where, for example, tables presenting an abundance of numerical information are present. It was not considered practical to highlight these individual differences and rather a suggestion to refer the reader to each project's individual document is made. This process is particularly relevant to offshore chapters where there are often many numerical differences in for example worst case parameters or percentage areas affected. To assist with the comparisons, an overview of the key project design parameters is included within ***section 2.6*** below.

9. **Please note, it is assumed the reader has read the East Anglia TWO PEIR in detail prior to reading this signposting document which is to be read in conjunction with the East Anglia ONE North PEIR.**

2 Signposting of Introductory Chapters

2.1 Chapter 1 Introduction

10. In the PEIRs, the introduction to the proposed East Anglia TWO project and the proposed East Anglia ONE North project, including details of the project team, EIA process and PEIR structure are consistent in their content with only minor differences between each project.

2.2 Chapter 2 Need for the Project

11. In the PEIRs, the need for renewable energy and the benefits of offshore wind presented is consistent in content between the proposed East Anglia TWO project and proposed East Anglia ONE North project. Only minor differences occur in ***section 2.4*** of the chapters, where contribution to policy targets are calculated based on the generating capacity of the proposed East Anglia TWO or proposed East Anglia ONE North project.

2.3 Chapter 3 Policy and Legislative Context

12. In the PEIRs, the international, national, regional and local policy and legislative context presented is consistent in content between the proposed East Anglia TWO project and proposed East Anglia ONE North project.

2.4 Chapter 4 Site Selection and Assessment of Alternatives

13. In the PEIRs, the content presented regarding site selection and assessment of alternatives is consistent between the proposed East Anglia TWO project and proposed East Anglia ONE North project.

14. The only notable differences occur in ***section 4.7*** of the chapter, where offshore site selection and alternatives are discussed, due to the different footprints of the windfarm site and offshore cable corridor for each project.

15. The proposed East Anglia TWO and proposed East Anglia ONE North projects have the same development area at the nearshore and across the proposed onshore development area. Therefore, ***section 4.8*** and ***section 4.9*** of these chapters are consistent in content.

16. The proposed onshore development area, which includes the landfall area, cable corridor and substation site, has been developed to allow for the construction of both the proposed East Anglia TWO and East Anglia ONE North projects. At this stage, it is not known whether both projects would be constructed simultaneously or sequentially. Therefore, the onshore topic assessments (chapters 18 – 27) in each PEIR, include two cumulative assessment scenarios which are considered

to represent the two worst case scenarios for construction of the onshore infrastructure. These are:

17. **Scenario 1** assesses the impacts of the proposed East Anglia TWO and East Anglia ONE North projects being built simultaneously (at the same time); and

18. **Scenario 2** assesses the impacts of the proposed East Anglia TWO and East Anglia ONE North projects being built sequentially. For the onshore infrastructure, this scenario assumes construction of the first project and full re-instatement, followed by the construction of the second project.

2.5 Chapter 5 EIA Methodology

19. In the PEIRs, the environmental impact assessment methodology presented for the proposed East Anglia TWO project and the proposed East Anglia ONE North project is consistent in content with only minor elements specific to each project.

2.6 Chapter 6 Project Description

20. There are variations in key project parameters for the proposed East Anglia TWO and East Anglia ONE North projects. ***Sections 2.6.1*** and ***2.6.2*** address these variations.

21. It should be noted that the worst case scenarios for each impact assessment were taken on a topic-specific basis. Therefore, please refer to topic specific comparisons in ***section 3, section 4 and section 5*** later in this signposting document for detail on how the worst case scenarios differ between the two projects or where further information on these differences can be found within the PEIR chapters and HRA.

2.6.1 Offshore Project Description

22. ***Figure 1*** shows both the East Anglia TWO and East Anglia ONE North offshore development areas for comparison.

23. ***Table 1*** gives a comparison of the key offshore project parameters for the proposed East Anglia TWO and East Anglia ONE North projects.

Table 1 Key Offshore Project Parameters for the Proposed East Anglia TWO and East Anglia ONE North Projects

Parameter	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Capacity[1]	Up to 900MW	Up to 800MW
Maximum number of wind turbines	75	67

[1] As measured at point of connection of the onshore cables to the onshore substation

Parameter	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Windfarm site area	255km^2	208km^2
Windfarm site water depth range	33 - 67m (below LAT)	33 - 67m (below LAT)
Distance from windfarm site to shore (closest point of site to Lowestoft)	31km	36km
Maximum cable lengths	Inter-array – 200km Platform link – 75km Export – 152km	Inter-array – 200km Platform link – 75km Export – 160km
Maximum offshore cable corridor area	180km^2	133km^2
Maximum number of export cables	Two	Two
Maximum wind turbine rotor diameter	250m	250m
Maximum wind turbine hub height (above Lowest Astronomical Tide (LAT))	175m	175m
Maximum wind turbine blade tip height (above LAT)	300m	300m
Minimum clearance above sea level	22m (Mean High Water Spring (MHWS))	22m (Mean High Water Spring (MHWS))
Minimum separation between wind turbines[2]	In-row spacing 800m	In-row spacing 800m
	Inter-row spacing 1200m	Inter-row spacing 1200m
Maximum number of wind turbine models to be installed	Up to three	Up to three
Wind turbine foundation type options	Jackets, gravity base structures, suction caissons, monopiles	Jackets, gravity base structures, suction caissons, monopiles
Number of met masts	One	One
Maximum height of met mast (LAT)	175m	175m

[2] Nominal spacing is likely to exceed this

Parameter	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Met mast foundation type options	Jacket, gravity base structure, suction caisson, monopile	Jacket, gravity base structure, suction caisson, monopile
Number of offshore electrical platforms	Up to four	Up to four
Number of operation and maintenance platforms	Up to one	Up to one

2.6.2 Onshore Project Description

24. ***Figure 2*** shows the identical overlap of other East Anglia TWO and East Anglia ONE North proposed onshore development areas with the specific locations of the East Anglia TWO and East Anglia ONE North onshore substations identified.

25. ***Table 2*** gives a comparison of the key onshore project information and parameters for the proposed East Anglia TWO and East Anglia ONE North projects.

Table 2 Key Onshore Information and Parameters for the Proposed East Anglia TWO and East Anglia ONE North Projects

Parameter	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Landfall location	North of Thorpeness	North of Thorpeness
Number of onshore cables	6	6
Number of fibre optic cables	2	2
Number of distributed temperature sensing cables	2	2
Onshore substation	1	1
Onshore substation footprint	190m x 190m	190m x 190m
Onshore substation building height	15m	15m
Onshore substation electrical equipment height	18m	18m
National Grid substation	1	
National Grid substation footprint (Air Insulated Substation (AIS))	140m x 325m (National Grid Gas Insulated Substation (GIS) substation footprint is 140m x 120m is an alternative option but is not considered the worst case for assessment)	

Parameter	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
National Grid substation building height (AIS)	13m (National Grid GIS substation building height is 16m is an alternative option but is not considered the worst case for assessment)	
National Grid substation maximum height of external electrical equipment (m)	16m	
Lightning protection	Lightning protection will be required using either lightning rods, lightning masts or shield wires	

3 Signposting of Offshore Chapters

3.1 Chapter 7 Marine Geology, Oceanography and Physical Processes

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
7.1 Introduction		
No difference		
7.2 Consultation		
No difference		
7.3 Scope		
7.3.1 Study Area	No difference	
7.3.2 Worst Case	Paragraph 18: the maximum number of wind turbines would be **75**. Paragraph 23: the total footprint of 300m **(60)** turbines with jacket suction caissons foundations without scour protection is **245,760m^2.** With scour protection, 300m GBS foundations the total footprint is **1,526,814m^2**.	
8.3.2 Worst Case	Impact 1A: Seabed preparation: **75** x 250m four-legged jacket suction caisson foundations 23,732m^3 per wind turbine totalling **1,779,891m^3.** Eight-legged jacket suction caisson foundations for up to four offshore electrical and one construction, operation and maintenance platform totalling 668,800m^3.	Impact 1A: Seabed preparation: **67** x 250m four-legged jacket suction caisson foundations 23,732m^3 per wind turbine totalling **1,590,036m^3.** Eight-legged jacket suction caisson foundations for up to four offshore electrical and one construction, operation and maintenance platform totalling 668,800m^3.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Four-legged jacket suction caisson foundation for one meteorological mast would be up to 23,732m^3. Total suspended sediment volume = **2,472,423m^3.** <u>Impact 1B:</u> Drill arisings: **60** x 300m turbines (45m depth 15m diameter) = **47,713m^3.** Meteorological mast = **7,952m^3**. Offshore electrical and construction, operation and maintenance platforms = 43,210m^3. Total = **98,875m^3.**	Four-legged jacket suction caisson foundation for one meteorological mast would be up to 23,732m^3. Total suspended sediment volume = **2,282,568m^3.** <u>Impact 1B:</u> Drill arisings: **53** x 300m turbines (45m depth 15m diameter) = **42,146m^3.** Meteorological mast = **7,952m^3**. Offshore electrical and construction, operation and maintenance platforms = 43,210m^3. Total = **93,308m^3.**
8.3.3 Embedded Mitigation	No difference	
8.3.4 Monitoring	No difference	
8.4 Assessment Methodology		
8.4.1 Guidance	No difference	
8.4.2 Data Sources	Paragraph 33: sediment grab samples were obtained from **four** locations in the windfarm site.	Paragraph 33: sediment grab samples were obtained from **three** locations in the windfarm site.
8.4.3 Impact Assessment Methodology	No difference	
8.4.4 Cumulative Impact Assessment	No difference	
8.4.5 Transboundary Impact Assessment	No difference	
8.4.6 Assumptions and Limitations	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
8.5 Existing Environment		
8.5.1 Water Quality	Paragraph 69: Aggregate extraction and marine disposal activities can also influence water quality. There are currently no aggregate dredging areas within the offshore development area. **The closest dredging area is Southwold East which lies 3km west of the windfarm site (3.4km to the south of the offshore cable corridor northern route and 3.6km to the north of the southern route)** (see Figure 17.5 in Chapter 17 Infrastructure and Other Users). Paragraph 70: Disposal sites in the vicinity of the offshore development area are shown on Figure 8.3. The **East Anglia TWO windfarm site** overlaps the East Anglia THREE disposal site (HU212) which will be used to dispose of sea bed sediment dredged during the construction of that project. **Site NS111 (North Sea Dredge Test (Figure 8.3)) overlaps the offshore development area and is closed, it is known to have received 13,500 tonnes of sediment in 1998**. Paragraph 72: Site specific surveys undertaken to support the EIA for East Anglia ONE included the collection of five sediment grab samples from within **the TH057 disposal site which is at its closest point located 0.25km from the East Anglia TWO windfarm site** (Figure 8.3). These samples were tested for volatile and semi-volatile organic compounds (EAOW, 2012b).	Paragraph 69: Aggregate extraction and marine disposal activities can also influence water quality. There are currently no aggregate dredging areas within the offshore development area. **The closest dredging area is Southwold East which lies 3.6km south of the offshore cable corridor. The nearest aggregate extraction area to the offshore development area is Yarmouth which is located 10.7km to the north west** (see Figure 17.5 in Chapter 17 Infrastructure and Other Users). Paragraph 70: Disposal sites in the vicinity of the offshore development area are shown on Figure 8.3. The **East Anglia ONE North** windfarm site overlaps the East Anglia THREE disposal site (HU212) which will be used to dispose of sea bed sediment dredged during the construction of that project (Figure 8.3). Paragraph 72: Site specific surveys undertaken to support the EIA for East Anglia ONE included the collection of five sediment grab samples from within **the TH057 disposal site which overlaps the windfarm site** (Figure 8.3). These samples were tested for volatile and semi-volatile organic compounds (EAOW, 2012b).

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Paragraph 74: There are **ten wells** within 50km of the offshore development area with **the closest being 15.4km away** (Figure 8.3).	Paragraph 74: There are **18 wells** within 50km of the offshore development area with **the closest being 4.6km away** (Figure 8.3).
8.5.2 Suspended Sediment Concentrations	No difference	
8.5.3 Sediment Quality	Paragraph 81: Grab samples collected from within the **East Anglia TWO** windfarm site suggest that sea bed composition is **primarily medium sand.** The proportion of silt within samples **tends to be higher in samples collected from deeper areas of the East Anglia TWO windfarm site, mainly in the south-east.**	Paragraph 81: Grab samples collected from within the East Anglia ONE North windfarm site suggest that sea bed composition is **primarily sand**. The proportion of silt within samples **is less than 4% in all samples bar one where the silt content is 9%.**
8.5.4 Climate Change and Natural Trends	No difference	
8.6 Potential Impacts		
8.6.1 Potential Impacts during Construction (Residual Impact)		
Impact 1A: Deterioration in offshore water quality due to increased SSC due to sea bed preparation during installation of foundations	Minor adverse	Minor adverse
Impact 1B: Deterioration in offshore water quality due to increased SSC due to drill arisings for installation of piled foundations:	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 2: Deterioration in water quality due to increase SSC during installing of the offshore export cable	Minor adverse	Minor adverse
Impact 3: Deterioration in offshore water quality due to increased SSC during array and interconnector cable installation	Minor adverse	Minor adverse
Impact 4: Deterioration in water quality due to works at the offshore export cable landfall	Minor adverse	Minor adverse
Impact 5: Deterioration in water quality due to re-suspension of sediment bound contaminants	Negligible	Negligible
8.6.2 Potential Impacts during Operation (Residual Impact)		
Impact 1: Deterioration in offshore water quality due to increase SSC due to scour around foundation structures	Negligible	Negligible
Impact 2: Deterioration in water quality due to re-suspension of sediment bound contaminants as a result of sour	Negligible	Negligible
8.6.3 Potential Impacts during Decommissioning (Residual Impact)		
Impact 1: Deterioration in water quality due to increase SSC during removed of accessible installed component.	Minor adverse or negligible	Minor adverse or negligible
8.7 Cumulative Impacts		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Table 8.15 Summary of Projects Considered for the CIA in Relation to MWSQ	Distances to cumulative projects from offshore development area.	Distances to cumulative projects from offshore development area.
8.8 Transboundary Impacts		
No difference		
8.9 Interactions		
No difference		
8.10 Inter-relationships		
No difference		
8.11 Summary		
No difference		
8.12 References		
No difference		

3.2 Chapter 9 Benthic Ecology

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
9.1 Introduction		
No difference		
9.2 Consultation		
No difference		
9.3 Scope		
	Paragraph 10: The offshore cable corridor includes two potential routes from the landfall to the **East Anglia TWO** windfarm site. **The northern route** passes to the north of the Southwold Aggregates Area and Southwold Transhipment Area **and would allow for a connection to an offshore electrical platform in the north of the East Anglia TWO windfarm site. The southern route passes to the south of the Southwold Aggregates Area and Southwold Transhipment Area and allows for connection to an offshore electrical platform in the centre or south of the East Anglia TWO windfarm site.**	Paragraph 10: The offshore cable corridor is a route from the landfall to the **East Anglia ONE North** windfarm site. **The route** passes to the north of the Southwold Aggregates Area and Southwold Transhipment Area.
9.3.1 Study Area	No difference	
9.3.2 Worst Case	• Paragraph 29: The worst case scenario for the volume of sediment arising from foundation preparation in the **East Anglia TWO** windfarm site would be associated with preparation for **75** of the 250m four-legged suction caisson foundations. The worst case sea bed preparation area per turbine foundation would be 6,948m^2 resulting in a	• Paragraph 29: The worst case scenario for the volume of sediment arising from foundation preparation in the **East Anglia ONE North** windfarm site would be associated with preparation for **67** 250m wind turbine four-legged suction caisson foundations. The worst case sea bed preparation area per turbine foundation would be 6,948m^2 resulting in a total footprint of **465,491m^2**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	total footprint of **521,072m^2** and sediment volume of **1,779,891m^3**. • Paragraph 30: There are **two out of service cables** in the **East Anglia TWO** windfarm site (the Atlantic Crossing 1 cable and **the Hermes North cable** (see Figure 17.1)). • Paragraph 32: The maximum length of disturbance caused by ploughing during export cable installation would be **160km** based on an average plough length of **80km** per cable for a total of two cables each requiring separate installation by the worst case of ploughing. • Paragraph 33: This results in a maximum area of sea bed disturbance of **3,200,000m^2** when considering a disturbance width of 20m. • Paragraph 42: There are **four** potential crossings with operational cables. Of the **three** other operational cables which interact with the **proposed East Anglia TWO** project**, two traverse** the **East Anglia TWO** windfarm site and offshore cable corridor **and one passes solely through the offshore cable corridor**. When the out of service Atlantic Crossing 1 cable is included, as a worst case, it is estimated that there could be up to 30 cable crossings which would all be subject to agreement with cable owners.	and sediment volume of **1,590,036m^3** for 67 250m wind turbines. • Paragraph 30: There is one **out of service cable known to be present** in the **East Anglia ONE North** windfarm site (the Atlantic Crossing 1 cable (see Figure 17.1)). • Paragraph 32: The maximum length of disturbance caused by ploughing during export cable installation would be **152km** based on an average plough length of **76km** per cable for a total of two cables each requiring separate installation by the worst case of ploughing. • Paragraph 33: This results in a maximum area of sea bed disturbance of **3,040,000m^2** when considering a disturbance width of 20m. • Paragraph 42: There are **five** potential crossings with operational cables. Of the **five** operational cables which interact with the proposed **East Anglia ONE North** project, **one traverses solely through the East Anglia ONE North windfarm site and the others only the offshore cable corridor.** When the out of service Atlantic Crossing 1 cable is included, as a worst case, it is estimated that there could be up to 30 cable crossings which would all be subject to agreement with cable owners. • Paragraph 43: **There is a single pipeline, the Bacton-Zeebrugge gas pipeline running northwest to southeast crossing the offshore cable corridor.**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
		• Paragraph 44: It should also be noted that the East Anglia THREE export cable route (which is in the pre-construction phase) traverses through the East Anglia ONE North windfarm site.
	• Paragraph 43: For export cables it is also assumed there would be up to 30 cable crossings.	• Paragraph 45: For export cables it is also assumed there would be up to 30 cable crossings and two pipeline crossings.
	• Paragraph 49: Therefore, as a worst case, a temporary disturbance footprint from jack-up vessels during maintenance activities of **112,500m^2** per annum has been assumed.	• Paragraph 49: Therefore, as a worst case, a temporary disturbance footprint from jack-up vessels during maintenance activities of **100,500m^2** per annum has been assumed.
	• Paragraph 56: Table 9.2 outlines the worst case scenarios for each identified impact. Where percentage areas affected have been calculated, these are based on a total windfarm site area of **255km^2** and an offshore cable corridor area of **123km^2** which results in a total offshore development area for the assessment of **378km^2. As a worst case, the offshore cable corridor area has been calculated based on the northern route (see Figure 9.2) which has the largest area of the two routes and from which the worst case export cable length was calculated. It would not be realistic to combine the areas for both route options as in reality only one of these routes will be used following final design of the project.**	• Paragraph 57: Table 9.2 outlines the worst case scenarios for each identified impact. Where percentage areas affected have been calculated, these are based on a total windfarm site area of **208km^2** and an offshore cable corridor area of **133km^2** which results in a total offshore development area for the assessment of **341km^2** (see Figure 9.2).

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• See **Table 9.2** in chapter for details of worst case scenarios.	• See Table 9.2 in chapter for details of worst case scenarios.
9.3.3 Embedded Mitigation	No difference	
9.3.4 Monitoring	No difference	
9.4 Assessment Methodology		
9.4.1 Guidance	No difference	
9.4.2 Data Sources	Existing Data: **38** grabs were taken within **East Anglia TWO** windfarm site. **Values** in **Table 9.4** Primary Data Collection: **Information in Table 9.5**	Existing Data: **45** grabs were taken within **East Anglia ONE North** windfarm site. **Values** in **Table 9.4** Primary Data Collection: **Information in Table 9.5**
9.4.3 Impact Assessment Methodology	No difference	
9.4.4 Cumulative Impact Assessment	No difference	
9.4.5 Transboundary Impact Assessment	No difference	
9.5 Existing Environment		
9.5.1 Sediment Types	• Paragraph 119: This is consistent with the site specific survey data which shows sediments in **both** the **northern and southern** offshore cable corridor options primarily consisting of sand and gravel however with differing conditions closer to shore as indicated by the results of nine samples	• Paragraph 120: This is consistent with the site specific survey data which shows sediments in the offshore cable corridor primarily consisting of sand and gravel however with differing conditions closer to shore as indicated by the results of nine samples within the 10 to 20m depth contour which

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	within the 10 to 20m depth contour which were predominantly silty (see Appendix 9.2 Benthic Factual Data Report and Figure 9.3). • Paragraph 120: The East Coast REC (Marine Aggregate Levy Sustainability Fund 2009), which covers a portion of the offshore cable corridor, and data from the ZEA suggest that areas inshore of the **East Anglia TWO** windfarm site are predominantly sand and gravel, with isolated pockets of fine material in sheltered areas, or areas where irregular sea bed topography encourages deposition. **ZEA samples indicate that sediments in the northern offshore cable corridor have a higher proportion of gravel than those samples which were taken from the southern offshore cable corridor**.	were predominantly silty (see Appendix 9.2 Benthic Factual Data Report and Figure 9.3). • Paragraph 121: The East Coast REC (Marine Aggregate Levy Sustainability Fund 2009), which covers a portion of the East Anglia ONE offshore cable corridor, and data from the ZEA suggest that areas inshore of the **East Anglia ONE North** windfarm site are predominantly sand and gravel, with isolated pockets of fine material in sheltered areas, or areas where irregular seabed topography encourages deposition.
9.5.2 Infaunal Communities	Differences lie in the number of locations of infaunal communities in the windfarm site: Paragraph 134: • Group M - **27** locations • Group N - **5** locations • Group O - **1** location • Group Q - **1** location Paragraph 135: Infaunal abundance within the **East Anglia TWO** windfarm site is low to moderate relative to adjacent areas of the former East Anglia Zone, with abundance generally increasing in the **north of the site. Some sample locations in the south west of the East Anglia TWO windfarm site also suggest**	Differences lie in the number of locations of infaunal communities in the windfarm site: Paragraph 135: • Group M - **25** locations • Group N - **1** location • Group O - **1** location • Group Q - **3** locations Paragraph 136: Infaunal abundance within the **East Anglia ONE North** windfarm site is low to moderate relative to adjacent areas of the former East Anglia Zone, **with abundance generally increasing in the west of the site** (see Figure 9.4).

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	higher abundance, relative to the rest of the site (see Figure 9.4).	
9.5.3 Epifaunal Communities	• Paragraph 144: Epibenthic abundance ranges from approximately **41 to 400** within the East Anglia TWO windfarm site (based on abundance categories in **EAOW 2012**) (see Figure 9.8). • Paragraph 146. The next most abundant class in terms of number of individuals identified were the brittlestars (*Ophiuroidea*) (Plate 9.3). **However, in terms of species this class constituted only 3.49% (Plate 9.4). Brittlestars often show aggregation behaviour and this was reflected in the fact that up to 1,700 *Ophiura albida* were identified in a single sample.** • Paragraph 147: **The class Hydrozoa constituted over 15% of the species identified within the former East Anglia Zone with *Hydractinia echinata* (found at 69 sample stations) and *Tubularia sp*. (identified at 30 sample stations) the most widely distributed.** • Paragraph 148: Figure 9.9 displays the epifaunal diversity in the **East Anglia TWO windfarm site** in the context of the former East Anglia Zone. Diversity (measured in terms of number of species) ranges from **7 to 20 species per sample.**	• Paragraph 145: Epibenthic abundance ranges from approximately **41 to 1000** within the East Anglia ONE North windfarm site (based on abundance categories in **MESL 2011**) (see Figure 9.8). • Paragraph 147: Figure 9.9 displays the epifaunal diversity in the **East Anglia ONE North windfarm site** in the context of the former East Anglia Zone. Diversity (measured in terms of number of species) ranges from **11 to 20 species per sample**.
9.5.4 Landfall and Intertidal Habitats	No difference	
9.5.5 Protected Habitats and Species	• Paragraph 155: The ZEA surveys indicate that S. *spinulosa* individuals are present within the offshore cable corridor (see Figure 9.11) with the potential for aggregations and potentially reef.	• Paragraph 155: During ZEA analysis an exercise was conducted to determine likely presence of *Sabellaria* reef across the former East Anglia Zone. This exercise assigned a value of between 1 and 5

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Data collected from both the ZEA and East Coast REC (Limpenny et al. 2011) indicate *Sabellaria* reef could be present in the offshore development area, **particularly the northern arm of the offshore cable corridor**. During the ZEA grab surveys, *S. Spinulosa* was found to be present at 108 of the 566 characterisation sample stations with abundances at these stations ranging from 1 to 1,660 individuals. • Paragraph 156: During ZEA analysis an exercise was conducted to determine likely presence of *Sabellaria* reef across the former East Anglia Zone. This exercise assigned a value of between 1 and 5 depending on the 'reefiness' of suspected areas of *Sabellaria* reef (where a score of 5 is highly likely to be reef, (Gubbay 2007)). The results showed that there were **two** potential areas of *Sabellaria* reef in the **East Anglia TWO windfarm site**, one with a 'reefiness' index of **2 and one with an index of 3**. There are also **four** potential areas in the **northern offshore cable corridor** ranging from a **'reefiness' scale of 2 to 4** (see MESL 2011; Figure 50 and Figure 9.12).	depending on the 'reefiness' of suspected areas of *Sabellaria* reef (where a score of 5 is highly likely to be reef, (Gubbay 2007)). The results showed that there were **seven** potential areas of *Sabellaria* reef in the **East Anglia ONE North windfarm site**, **two** with a 'reefiness' index of 1, **two with an index of 3-4 and three other sites, two of which indicate 'Low Presence & Medium Confidence' and one of which indicates 'High Presence and Medium Confidence'. There are also two potential areas in the offshore cable corridor with a 'reefiness' scale of 3 and 4 with three other areas indicating areas of *Sabellaria* reef with 'High Presence & Medium Confidence'** (see MESL 2011; Figure 50 and Figure 9.12).
9.5.6 Context and Summary	No difference	
9.5.7 Anticipated Trends in Baseline Conditions	No difference	
9.6 Potential Impacts		
9.6.1 Potential Impacts During Construction (Residual Impact)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 1: Temporary Physical Disturbance	Minor adverse	Minor adverse
Impact 2: Increased Suspended Sediment Concentrations and Associated Potential Smothering of Benthic Receptors	Minor adverse	Minor adverse
Impact 3: Remobilisation of Contaminated Sediments	Negligible	Negligible
Impact 4: Underwater Noise and Vibration	Negligible	Negligible
Impact 5: Potential Impacts on Sites of Marine Conservation Importance	Negligible	Negligible
Impact 6: Permanent Habitat Loss Resulting from Seabed Preparation	Minor adverse	Minor adverse
9.6.2 Potential Impacts during Operation (Residual Impact)		
Impact 1: Loss of Habitat: In windfarm site In offshore cable corridor	 Minor adverse Negligible	 Minor adverse Negligible
Impact 2: Physical Disturbance	Minor adverse	Minor adverse
Impact 3: Increased Suspended Sediment Concentrations and Associated Potential Smothering of Benthic Receptors	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 4: Colonisation of Foundations and Cable Protection	Minor adverse	Minor adverse
Impact 5: Interactions of EMF with Benthic Invertebrates	Negligible	Negligible
Impact 6: Underwater Noise and Vibration	Negligible	Negligible
Impact 7: Introduction of Marine Non-native Species	Minor adverse	Minor adverse
9.6.3 Potential Impacts during Decommissioning (Residual Impact)		
Impact 1: Loss of Habitats and Species Colonising Hard Structures	Minor adverse	Minor adverse
Impact 2: Loss of Habitat Resulting from Foundation or Cable Infrastructure Not Being Fully Removed During Decommissioning	Minor adverse	Minor adverse
9.7 Cumulative Impacts (Residual Impact)		
9.7.1 Cumulative Impacts within the East Anglia TWO Windfarm Site		
9.7.1.1 Temporary Physical Disturbance Associated with the Offshore Windfarm Sites During Construction and Operation	Negligible	Negligible
9.7.1.2 Loss of Habitat During Construction, Operations and Decommissioning	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
9.7.1.3 Increased Suspended Sediment Concentrations during Construction and Operation.	N/A	N/A
9.7.2 Cumulative Impacts within the Offshore Cable Corridor		
9.7.2.1 Temporary Physical Disturbance Associated with the Offshore Windfarm Sites During Construction and Operation	Negligible	Negligible
9.7.2.2 Loss of Habitat During Construction, Operations and Decommissioning	Minor adverse	Minor adverse
9.7.2.3 Increased Suspended Sediment Concentrations during Construction and Operation.	Minor adverse	Minor adverse
9.7.2.4 Interactions of EMF with Benthic Invertebrates During Operation	Negligible	Negligible
9.7.2.5 Impacts Upon the Outer Thames Estuary SPA during Construction	Minor adverse	Minor adverse
9.8 Transboundary Impacts		
No difference		
9.9 Interactions		
No difference		
9.10 Inter-relationships		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
9.11 Summary		
No difference		
9.12 References		
No difference		

3.3 Chapter 10 Fish and Shellfish Ecology

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
10.1 Introduction		
No difference		
10.2 Consultation		
No difference		
10.3 Scope		
10.3.1 Study Area	No difference	
10.3.2 Worst Case	Paragraph 19: The design parameters which constitute the worst case scenario for fish and shellfish ecology are presented by impact in Table 10.3 which outlines the worst case scenarios for each identified impact. Where percentage areas affected have been calculated, these are based on a total windfarm site area of **255km^2** and an offshore cable corridor area of **123km^2** which results in a total offshore development area for the assessment of **378km^2. As a worst case, the offshore cable corridor area has been calculated based on the northern route (see Figure 10.1) which has the largest area of the two routes and from which the worst case export cable length was calculated. It would not be realistic to combine the areas for both route options as in reality only one of these routes will be used following final design of the project.** See **Table 10.3** in chapter for details of worst case scenarios.	Paragraph 20: The design parameters which constitute the worst case scenario for fish and shellfish ecology are presented by impact in Table 10.3. which outlines the worst case scenarios for each identified impact. Where percentage areas affected have been calculated, these are based on a total windfarm site area of **208km^2** and an offshore cable corridor area of **133km^2** which results in a total offshore development area for the assessment of **341km^2**. See **Table 10.3** in chapter for details of worst case scenarios.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
10.3.3 Embedded Mitigation	No difference	
10.3.4 Monitoring	No difference	
10.4 Assessment Methodology		
10.4.1 Guidance	No difference	
10.4.2 Data Sources	No difference	
10.4.3 Impact Assessment Methodology	No difference	
10.4.4 Cumulative Impact Assessment	No difference	
10.4.5 Transboundary Impact Assessment	No difference	
10.5 Existing Environment		
10.5.1 Overview	No difference	
10.5.2 Fish	Table 10.11 Offshore development area **does not overlap mackerel spawning grounds**.	Table 10.11 Offshore development area **overlaps mackerel spawning grounds**.
10.5.3 Shellfish	No difference	
10.5.4 Designated Sites and Protected Species	No difference	
10.5.5 Prey Species and Food Web Linkages	No difference	
10.5.6 Species Taken Forward for Assessment	Table 10.17: Whiting – **Low intensity spawning** ground in offshore development area.	Table 10.17: Plaice - **High intensity spawning areas in the East Anglia ONE North Windfarm site**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Rays, skates and sharks - The proposed **East Anglia TWO windfarm site** is situated within low intensity nursery area for tope and **undefined intensity nursery for Thornback Rays.**	Whiting **– Low intensity nursery** ground in offshore development area. Rays, skates and sharks - The **offshore development area** is situated within low intensity nursery area for tope.
10.5.7 Anticipated Trends in Baseline Conditions	No difference	
10.6 Potential Impacts		
10.6.1 Potential Impacts During Construction (Residual Impacts)		
Impact 1: Physical Disturbance and Temporary Loss of Habitat	Minor adverse	Minor adverse
Impact 2: Increased Suspended Sediments and Sediment Re-Disposition	Minor adverse	Minor adverse
Impact 3: Re-Mobilisation of Contaminated Sediments and Sediment Re-Deposition	Negligible	Negligible
Impact 4A: Underwater Noise Impacts to Hearing Sensitive Species During Foundation Piling (mortality / recoverable injury)		
Fish with no swim bladder	Negligible (minor adverse for sandeels)	Negligible (minor adverse for sandeels)
Fish with swim bladder not involved with hearing	Negligible (minor adverse for gobies)	Negligible (minor adverse for gobies)
Fish with swim bladder involved in hearing	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Eggs and larvae *Shellfish*	Negligible Minor adverse	Negligible Minor adverse
Impact 4B: Underwater Noise Impacts to Hearing Sensitive Species During Foundation Piling (TSS and behavioural) *Herring* *For other receptors*	**Minor adverse** Minor adverse	**N/A** Minor adverse
Impact 4C: Underwater Noise Impacts to Hearing Sensitive Species During Foundation Piling (changes to prey species or feeding behaviour)	Minor adverse	Minor adverse
Impact 5: Underwater Noise Impacts to Hearing Sensitive Species due to Other Activities	Minor adverse	Minor adverse
Impact 6: Underwater Noise Impacts to Hearing Sensitive Species due to UXO Clearance	Minor adverse	Minor adverse
Impact 7: Changes in Fishing Activity	Minor adverse	Minor adverse
10.6.2 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Permanent Habitat Loss *For all receptors*	Minor adverse	Minor adverse
Impact 2: Increased Suspended Sediments and Sediment Re-Deposition	Negligible	Negligible

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 3: Re-Mobilisation of Contaminated Sediments and Sediment Re-Deposition	Negligible	Negligible
Impact 4: Underwater Noise Impacts to Hearing Sensitive Species due to Operational Noise	Minor adverse	Minor adverse
Impact 5: Introduction of Wind Turbine Foundations, Scour Protection and Hard Substrate	Minor adverse	Minor adverse
Impact 6: Electromagnetic Fields		
Elasmobranchs	Minor adverse	Minor adverse
Lamprey	Minor adverse	Minor adverse
Salmon and sea trout	Negligible	Negligible
European eel	Minor adverse	Minor adverse
Other fish species	Minor adverse	Minor adverse
Shellfish	Negligible	Negligible
Impact 7: Changes in Fishing Activity	Minor adverse	Minor adverse
10.6.3 Potential Impacts during Decommissioning (Residual Impacts)		
Impact 1: Physical disturbance and temporary loss of seabed habitat, spawning or nursery ground	As above for the construction phase and likely to be less	As above for the construction phase and likely to be less
Impact 2: Increased suspended sediments and sediment re-deposition	As above for the construction phase and likely to be less	As above for the construction phase and likely to be less

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 3: Re-mobilisation of contaminated sediment during intrusive works	As above for the construction phase and likely to be less	As above for the construction phase and likely to be less
Impact 4: Underwater noise impacts to hearing sensitive species due to other activities	As above for the construction phase and likely to be less	As above for the construction phase and likely to be less
Impact 5: Changes in fishing activity	As above for the construction phase and likely to be less	As above for the construction phase and likely to be less
10.7 Cumulative Impacts (Residual Impacts)		
Construction		
Impact 1: Cumulative changes to seabed habitat	Minor adverse	Minor adverse
Impact 2: Cumulative underwater noise from piling (behavioural)	Minor adverse	Minor adverse
Impact 3: Cumulative noise from other construction activities	Minor adverse	Minor adverse
Impact 4: Cumulative noise from UXO clearance	Minor adverse	Minor adverse
Operation		
Impact 1: Cumulative permanent habitat loss	Minor adverse	Minor adverse
Impact 2: Cumulative changes to seabed habitat	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 3: Cumulative underwater noise	Minor adverse	Minor adverse
Decommissioning		
	As above for the construction and likely less	As above for the construction and likely less
10.8 Transboundary Impacts		
No difference		
10.9 Inter-relationships		
No difference		
10.10 Interactions		
No difference		
10.11 Summary		
No difference		
10.12 References		
No difference		

3.4 Chapter 11 Marine Mammals

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
11.1 Introduction	No difference	
11.2 Consultation	No difference	
11.3 Scope		
11.3.1	No difference	
11.3.2	Paragraph 15: Several different models of wind turbine are being considered in the range of 250 to 300m blade tip height. To achieve the maximum **900MW** installed capacity, there could be up to: **75** x 250m wind turbines; or **60** x 300m wind turbines.	Paragraph 14: Several different models of wind turbine are being considered in the range of 250m to 300m blade tip height. To achieve the maximum **800MW** installed capacity, there could be up to: **67** x 250m wind turbines; or **53** x 300m wind turbines.
11.3.3	Table 11.2 worst case parameters differ. See documents for detail.	
11.3.4	No difference	
11.4 Assessment Methodology		
11.4.1 Guidance	No difference	
11.4.2 Data Sources	• Paragraph 84: Information to support the EIA will be based on 24 months (**November 2015** to **April 2016, September 2016 to October 2017 and May 2018 to August 2018**) of survey data for the East Anglia **TWO** windfarm site… • Paragraph 85: The assessment for the PEIR has been based on the data currently available for **November 2015 to April 2016, September 2016 to October 2017 and May 2018 (21 months).**	• Paragraph 84: Information to support the EIA will be based on 24 months (**September 2016** to **August 2018**) of survey data for the East Anglia **ONE North** windfarm site… • Paragraph 85: The assessment for the PEIR has been based on the data currently available for **September 2016 to July 2018 (23 months).**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• Paragraph 86: Coverage of the marine mammal survey area was between approximately **11%** and **13%** per month.	• **Paragraph 86:** Coverage of the marine mammal survey area was between approximately **10%** and **17%** per month.
11.4.3 Assumptions and Limitations	No difference	
11.4.4 Impact Assessment Methodology	No difference	
11.4.5 Cumulative Impact Assessment	No difference	
11.4.6 Transboundary Impact Assessment	No difference	
11.5 Existing Environment		
11.5.1.3.3	First paragraph in section: Differences in survey data as outlined above.	
11.5.1.3.3	Paragraph 138: The annual mean density estimate, when using the seasonal correction factors is **0.71/km^2** for the East Anglia TWO windfarm site. The density estimate during summer (April to September) is **0.41/km^2** and during the winter (October to March) the estimated density is **1.01/km^2** using the corrected densities.	Paragraph 139: The annual mean density estimate, when using the seasonal correction factors, is **0.573/km^2** for the East Anglia ONE North windfarm site. The density estimate during summer (April to September) is **0.21/km^2** and during the winter (October to March) the estimated density is **0.93/km^2** using the corrected densities.
11.5.2.2	Paragraph 150: The East Anglia **TWO** windfarm site is located approximately **32km** offshore (at the closest point). Principal grey seal haul-out sites (and approximate distance to the East Anglia **TWO** windfarm site) are Scroby Sands (**41km**), Horsey Corner (**55km**), Blakeney Point National Nature Reserve (NNR) (**113km**), The Wash (**159km**) and at Donna Nook (**186km**) (***Figure 11.1***). There are smaller grey seal haul-out sites present along the Essex and Kent coastlines, the closest of which are the Gunfleet Sands and Sunk Sands sites, **both**	Paragraph 152: The East Anglia ONE North windfarm site is located approximately 37km offshore (at the closest point). Principal grey seal haul-out sites (and approximate distance to the East Anglia **ONE North** windfarm site) are Scroby Sands (**40km**), Horsey Corner **(52km**), Blakeney Point National Nature Reserve (NNR) (**111km**), The Wash (**157km**) and at Donna Nook (**184km**) (***Figure 11.1***). There are smaller grey seal haul-out sites present along the Essex and Kent coastlines, the closest of which are the Gunfleet Sands and Sunk Sands sites,

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	approximately **61km** from the East Anglia **TWO** windfarm site.	approximately **88km and 91km respectively** from the East Anglia **ONE North** windfarm site.
11.5.2.4.2	Values in Table 11.15 differ, see chapters for details.	
11.5.2.4.3	• Paragraph 169: **Twelve** individual seals were recorded during the aerial surveys for the proposed East Anglia TWO project from **November 2015 to April 2016, from September 2016 to October 2017, and May 2018 (21 months)**, these were not identified to species level. • Paragraph 168: **Relatively low numbers (total of 20 individual seals) were also recorded during the aerial surveys for the proposed East Anglia ONE North project, from September 2016 to July 2018 (23 months), these were not identified to species level (SPR 2019).**	• Paragraph 169: **A total of 20** individual seals were recorded during the aerial surveys for the proposed East Anglia **ONE North** project, **from September 2016 to July 2018 (23 months)**, these were not identified to species level • Paragraph 170: **Relatively low numbers (total of twelve individual seals) were also recorded during the aerial surveys for the proposed East Anglia TWO project, from November 2015 to April 2016, from September 2016 to October 2017, and May 2018 (21 months), these were not identified to species level**
11.5.3.2	Paragraph 182: The principal harbour seal haul-out sites (with approximate distances to the East Anglia **TWO** windfarm site) are at Scroby Sands (**41km**), Blakeney Point (**113km**) and The Wash (**159km**) (***Figure 11.1***). Smaller harbour seal haul-out sites along the Essex coastline (with approximate distances to the East Anglia **TWO** windfarm site) are at Hamford Water (**64km**), Buxey Sand (**83km**) and Margate (**88km**)	Paragraph 186: The principal harbour seal haul-out sites (with approximate distances to the East Anglia **ONE North** windfarm site) are at Scroby Sands (**40km**), Blakeney Point (**111km**) and The Wash (**157km**) (***Figure 11.1***). Smaller harbour seal haul-out sites along the Essex coastline (with approximate distances to the East Anglia **ONE North** windfarm site) are at Hamford Water (**90km**), Buxey Sand (**109km**) and Margate (**117km**)
11.5.3.4.2	Values in Table 11.16 differ, see chapters for details.	
11.5.3.4.3	First paragraph in section: Differences as per survey dates between the two projects as outlined above.	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
11.5.4.1	Paragraph 202: The East Anglia **TWO** offshore development area is located wholly within the SNS cSAC / SCI **winter area**	Paragraph 206: The East Anglia **ONE North** offshore development area is located wholly within the SNS cSAC / SCI area
11.5.4.2.1	Paragraph 212: all sites for grey seal, with the exception of the Humber Estuary SAC, which is **172km** at its closest point to the cable corridor route	Paragraph 216: all sites for grey seal, with the exception of the Humber Estuary SAC, which is **174km** at its closest point to the cable corridor route
11.5.4.2.2	Paragraph 215: all sites for harbour seal, with the exception of the Wash and North Norfolk Coast SAC (**94km** at its closest point to the offshore cable corridor)	Paragraph 219: all sites for harbour seal, with the exception of the Wash and North Norfolk Coast SAC (**100km** at its closest point to the offshore cable corridor)
11.5.6	Values in Table 11.18 differ, see chapters for details.	
11.6 Potential Impacts		
11.6.1 Potential Impacts During Construction (Residual Impacts)		
Impact 1: Physical and Auditory Injury Resulting from the Underwater Noise Associated with Clearance of Unexploded Ordnance (UXO) – PTS and TTS	Minor adverse	Minor adverse
Impact 2: Behavioural Impacts Resulting from the Underwater Noise Associated with the Clearance of Unexploded Ordnance (UXO)	Minor adverse	Minor adverse
Impact 3: Physical and Auditory Injury Resulting from Underwater Noise during Piling PTS from first strike of soft start		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
All species PTS from single strike at max hammer energy	Minor adverse	Minor adverse
All species PTS from cumulative exposure	Minor adverse	Minor adverse
All species TTS and fleeing response	Minor adverse	Minor adverse
All species	Minor adverse	Minor adverse
Impact 4: Behavioural Impacts Resulting from Underwater Noise During Piling		
Disturbance during piling for single installation		
All species Disturbance during Single Pile Installation	Minor adverse	Minor adverse
Harbour porpoise	Negligible	Negligible
Impact 5: Behavioural Impacts Resulting from Underwater Noise During Other Construction Activities		
PTS from cumulative SEL		
All species TTS from Cumulative SEL	Minor adverse	Minor adverse
All species	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Possible behavioural response *Harbour porpoise*	Negligible	Negligible
Impact 6: Underwater Noise and Disturbance from Construction Vessels PTS from cumulative SEL *All species* TTS from Cumulative SEL *All species* Possible behavioural response *Harbour porpoise*	Minor adverse Minor adverse Negligible	Minor adverse Minor adverse Negligible
Impact 7: Barrier Effects as a Result of Underwater Noise *All species*	Minor adverse	Minor adverse
Impact 8: Vessel Interaction (Collision Risk) During Construction *Harbour porpoise* *Grey seal* *Harbour seal*	Minor adverse Minor adverse Negligible	Minor adverse Minor adverse Negligible
Impact 9: Changes to Prey Resource *Harbour porpoise*	Negligible to minor adverse	Negligible to minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Grey and harbour seal	Negligible	Negligible
11.6.2 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Behavioural Impacts Resulting from the Underwater Noise associated with Operational Wind Turbines PTS from Cumulative SEL *All species* TTS from Cumulative Exposure *All species* Possible behavioural response *Harbour porpoise*	 Minor adverse Minor adverse Negligible	 Minor adverse Minor adverse Negligible
Impact 2: Behavioural Impacts Resulting from the Underwater Noise Associated with Maintenance Activities, such as any Additional Rock Dumping and Cable Re-Burial	Minor adverse	Minor adverse
Impact 3: Underwater Noise and Disturbance from Maintenance Vessels	Negligible	Negligible
Impact 4: Vessel Interaction (Collision Risk) during Operation and Maintenance *All species*	 Minor adverse	 Minor adverse
Impact 5: Changes to Prey Resources during Operation and Maintenance *Harbour porpoise*	 Negligible to minor adverse	 Negligible to minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Grey seal and harbour seal	Negligible	Negligible
11.6.3 Potential Impacts during Decommissioning = the same or less than assessed for construction for both projects		
11.7 Cumulative Impacts		
Impact 1: Underwater Noise During Construction from Offshore Windfarm Piling (a*ll species*)	Minor adverse	Minor adverse
Impact 2: Underwater Noise from All Other Noise Sources (a*ll species*)	Minor adverse	Minor adverse
Impact 1 and 2 combined: Underwater Noise from All Noise Sources including Piling (a*ll species*)	Minor adverse	Minor adverse
Impact 3: Changes to Prey Resources (a*ll species*)	Minor adverse	Minor adverse
Impact 4: Vessel Interaction (Collision Risk) (a*ll species*)	Minor adverse	Minor adverse
11.8 Transboundary Impacts		
No difference		
11.9 Inter-relationships		
No difference		
11.10 Interactions		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
11.11 Summary		
No difference		
11.12 References		
No difference		

3.5 Chapter 12 Offshore Ornithology

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
12.1 Introduction		
No difference		
12.2 Consultation		
No difference		
12.3 Scope		
12.3.1 Study Area	Paragraph 15: This study area includes the **East Anglia TWO** windfarm site and a 4km buffer placed around it (Figure 12.1). Monthly aerial surveys of the study area began in **November 2015, ceased in April 2016, re-started in** September 2016 **until October 2017 (20 months in total). An additional four months of surveys was undertaken in May to August 2018 to provide a complete 24-month dataset**. The final DCO submission will use all of these data, however the analysis and assessment in this PEIR has been undertaken prior to the data from the final aerial surveys being available, so is based on the first 21 monthly surveys and will be updated when 24 surveys are available.	Paragraph 14: This study area includes the **East Anglia ONE North** windfarm site and a 4km buffer placed around it (Figure 12.1). Monthly aerial surveys of the study area began in September 2016 **(and were completed in August 2018 (24 months in total**). The final DCO submission will use all of these data, however the analysis and assessment in this PEIR has been undertaken prior to the data from the final aerial surveys being available, so is based on the first 21 monthly surveys (**to May 2018**) and will be updated when 24 surveys are available.
12.3.2 Worst Case	• Paragraph 19: The worst-case scenarios for potential impacts of the proposed project on offshore ornithology receptors from the construction, operation and decommissioning phases are described and presented in Table 12.2. Where percentage areas affected have been calculated, these are based on a total windfarm site area of **255km^2** and an offshore cable corridor	• Paragraph 18: The worst-case scenarios for potential impacts of the proposed project on offshore ornithology receptors from the construction, operation and decommissioning phases are described and presented in Table 12.2. Where percentage areas affected have been calculated, these are based on a total windfarm site area of **208km^2** and an offshore cable corridor area of

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	area of **123km²** which results in a total offshore development area for the assessment of **378km²**. **As a worst case, the offshore cable corridor area has been calculated based on the northern route (see Figure 9.2) which has the largest area of the two routes and from which the worst case export cable length was calculated. It would not be realistic to combine the areas for both route options as in reality only one of these routes will be used following final design of the project.** • Paragraph 21: It should be noted that after collision risk modelling (CRM) was conducted for the proposed **East Anglia TWO** project, the design envelope was changed so that the maximum number of wind turbines increased from **67** to **75** for the 12MW scenario, and from **53** to **60** for the 15MW scenario. The collision risk modelling presented in this assessment is for the previous scenarios of **67** 12MW, **53** 15MW and **48**19MW turbines (see Appendix 12, Annex 3). The collision risk model has not been re-run for the updated scenarios because of time constraints however an assessment of the updated parameters will be included within the ES. This model re-run will also incorporate the remaining three months of aerial survey data (see section 12.3.1). • See **Table 12.2** in chapter for details of worst case scenarios.	**133km²** which results in a total offshore development area for the assessment of **341km².** • Paragraph 20: It should be noted that after collision risk modelling (CRM) was conducted for the proposed East Anglia ONE North project, the design envelope was changed so that the maximum number of wind turbines increased from **60** to **75** for the 12MW scenario, and from **42** to **53** for the 15MW scenario. The collision risk modelling presented in this assessment is for the previous scenarios of **60** 12MW, **42** 15MW and **42** 19MW turbines (see Appendix 12, Annex 3). The collision risk model has not been re-run for the updated scenarios because of time constraints however an assessment of the updated parameters will be included within the ES. This model re-run will also incorporate the remaining three months of aerial survey data (see section 12.3.1). • See **Table 12.2** in chapter for details of worst case scenarios.
12.3.3 Embedded Mitigation	No difference	
12.3.4 Monitoring	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
12.4 Assessment Methodology		
12.4.1 Legislation, Policy and Guidance	No difference	
12.4.2 Data Sources	Paragraph 33: Site specific aerial surveys of the **East Anglia TWO** windfarm site (and 4km buffer) were conducted between **November 2015 and April 2016**, September 2016 and **October 2017, and May to** August 2018, to complete 24 months of site-specific data available for assessment. The analysis and assessment in this PEIR has been undertaken prior to the data from the final aerial surveys being available, so is based on the first 21 monthly surveys and will be updated when 24 surveys are available.	Paragraph 32: Site specific aerial surveys of the **East Anglia ONE North** windfarm site (and 4km buffer) were conducted between **September 2016 and August 2018**, to complete 24 months of site-specific data available for assessment. The analysis and assessment in this PEIR has been undertaken prior to the data from the final aerial surveys being available, so is based on the first 21 monthly surveys and will be updated when 24 surveys are available Paragraph 35: **Surveys of the East Anglia ONE North windfarm site (and 4km buffer) to the southwest were carried out between November 2015 and April 2016, September 2016 and October 2017, and May to August 2018, to complete 24 months of site-specific data**.
12.4.3 Impact Assessment Methodology	No difference	
12.4.4 Project Design Envelope	No difference	
12.4.5 Cumulative Impact Assessment	No difference	
12.4.6 Transboundary Impact Assessment	No difference	
12.5 Existing Environment		
12.5.1 Key Species	Species recorded in the **East Anglia TWO** study area:	Species recorded in the **East Anglia ONE North** study area:

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Black throated diver **Great northern diver** **Cormorant** **Shag** **Puffin** See Table 12.9 for full list. See Table 12.11 for detailed mean peak counts (and 95% confidence levels) by biological season for bird species recorded within the windfarm site.	**Sandwich tern** See Table 12.9 for full list. See Table 12.11 for detailed mean peak counts (and 95% confidence levels) by biological season for bird species recorded within the windfarm site.
12.5.2 Designated Sites	• Paragraph 70: The offshore ornithology section of the Habitats Regulations Assessment (HRA) Screening Report (Royal HaskoningDHV 2018) considers **86** offshore and coastal designated sites within or adjacent to the southern North Sea within 950km of the **East Anglia TWO** windfarm site. These comprise SPAs and Ramsar sites designated for bird interests, with terrestrial areas of coastal sites also designated as SSSIs (to Mean Low Water Springs) • See Table 12.12 for details of designated sits for birds with potential connectivity to the proposed **East Anglia TWO** project.	• Paragraph 69: The offshore ornithology section of the Habitats Regulations Assessment (HRA) Screening Report (Royal HaskoningDHV 2018) considers offshore and coastal designated sites within or adjacent to the southern North Sea within 950km of the **East Anglia ONE North** windfarm site. These comprise SPAs and Ramsar sites designated for bird interests, with terrestrial areas of coastal sites also designated as SSSIs (to Mean Low Water Springs). • See Table 12.12 for details of designated sits for birds with potential connectivity to the proposed **East Anglia ONE North** project.
12.5.3 Anticipated Trends in Baseline Conditions	No difference	
12.6 Potential Impacts		
12.6.1 Potential Impacts During Construction (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 1A: Direct Disturbance and Displacement during export cable construction	Minor adverse	Minor adverse
Impact 1B: Direct disturbance and displacement from construction activity on windfarm site	Negligible	Negligible
Impact 2: Indirect Impacts Through Effects on Habitats and Prey Species	Negligible to minor adverse	Negligible to minor adverse
12.6.2 Potential Impacts during Operation		
Impact 1: Direct Disturbance and Displacement		
Red-throated diver	Minor adverse	Minor adverse
Gannet	Negligible	Negligible
Razorbill	Negligible	Negligible
Guillemot	Negligible	Negligible
Impact 2: Indirect Impacts Through Effects on Habitats and Prey Species	Negligible to minor adverse	Negligible to minor adverse
Impact 3: Collision Risk		
All species	Negligible to minor adverse	Negligible to minor adverse
12.6.3 Potential Impacts during Decommissioning		
Impact 1: Direct Disturbance and Displacement	Negligible to minor adverse	Negligible to minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 2: Indirect Impacts Through Effects on Habitats and Prey Species	Negligible to minor adverse	Negligible to minor adverse
12.7 Cumulative Impacts		
Operation		
12.7.1 Disturbance and displacement *Red-throated diver* *Gannet* *Razorbill* *Guillemot*	 Minor adverse Negligible Negligible Negligible	 Minor adverse Negligible Negligible Negligible
12.7.2 Collision risk *All species*	Minor adverse	Minor adverse
12.8 Transboundary Impacts		
No difference		
12.9 Interactions		
No difference		
12.10 Inter-relationships		
No difference		
12.11 Summary		
No difference		
12.12 References		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
No difference		

3.6 Chapter 13 Commercial Fisheries

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
13.1 Introduction		
No difference		
13.2 Consultation		
	See Table 13.2 for details of Fisheries stakeholders consulted to inform the chapter.	Table 13.1 Consultation Responses MMO scoping response: **Continuation of the established Commercial Fisheries Working Group is commended and the MMO encourages ongoing engagement with the fishing industry. The MMO welcomes the appointment of a Fisheries Liaison Officer, who will work closely with the fishing industry to help identify what mitigation may be required. The MMO notes that fishers in the southern North Sea have faced disruption from a number of developments in close proximity to the project area and the cumulative loss of fishing grounds, either temporarily or permanently, should be recognised**. See Table 13.2 for details of Fisheries stakeholders consulted to inform the chapter.
13.3 Scope		
13.3.1 Study Area	No difference	
13.3.2 Worst Case	See Table 13.4 for details of worst case scenarios	See Table 13.4 for details of worst case scenarios
13.3.3 Embedded Mitigation	No difference	
13.3.4 Monitoring	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
13.4 Assessment Methodology		
13.4.1 Guidance and Legislation	No difference	
13.4.2 Data Sources	No difference	
13.4.3 Impact Assessment Methodology	No difference	
13.4.4 Cumulative Impact Assessment	No difference	
13.4.5 Transboundary Impact Assessment	No difference	
13.5 Existing Environment		
13.5.1 Overview	No difference	
13.5.2 Dutch Fishing Vessels	Paragraph 51: It should be noted that Dutch fishermen have agreed to avoid fishing using pulse wing gear within three discrete areas off the east coast of England through a voluntary Interim Spatial Separation Agreement with UK East coast fishermen. As shown in Figure 13.9, one of these areas is located immediately to the north of the **East Anglia TWO** windfarm site.	Paragraph 48: It should be noted that **the northern half of the East Anglia ONE North windfarm site overlaps with one of the three areas where** Dutch fishermen have agreed to avoid fishing using pulse wing gear through a voluntary Interim Spatial Separation Agreement with UK East coast fishermen (Figure 13.9). **Therefore, with the implementation of this voluntary agreement, Dutch vessels using pulse wing trawls would not target grounds across the northern section the East Anglia ONE North** windfarm site.
13.5.3 Belgian Fishing Vessels	Paragraph 58: **The highest levels of activity by these vessels concentrate**, **the coast of Belgium and in the English Channel**. **Fishing activity in the study area occurs at low to medium levels. The offshore development area for the most activity is focused around the East Anglia TWO windfarm site**	Paragraph 55: **During consultation undertaken to inform this chapter (Table 13.2),** the **importance of areas between the UK's 6** and **12nm limit to Belgian vessels was noted by Rederscentrale. In line with this, analysis of VMS data suggests that within** the study area, the **highest levels of fishing** activity are

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	and the section of the offshore cable corridor to its **west.**	recorded **central** section of the offshore cable corridor **(which falls within the 6 -12 nm limit), particularly immediately to its north and south. Comparatively lower activity levels are however recorded over the offshore cable corridor itself and within the East Anglia ONE North windfarm site.**
13.5.4 United Kingdom Fishing Vessels	Paragraph 63: Local potting, trawling **and longlining** grounds are located primarily inshore, including in areas relevant to the offshore cable corridor, however some vessels are known to target grounds as far out as the East Anglia TWO windfarm site (Figure 13.28, Figure 13.29 and Figure 13.30).	Paragraph 60: Local potting and trawling grounds are located primarily inshore, including in areas relevant to the offshore cable corridor, however some vessels **target grounds further offshore in areas to the south of the East Anglia ONE North windfarm site** (Figure 13.28 and Figure 13.29). Paragraph 61: **Longlining grounds are primarily found inshore including in areas relevant to the offshore cable corridor, however some vessels** are known to target grounds as far out as the **East Anglia ONE North** windfarm site (Figure 13.30).
13.5.5 French Fishing Vessels	No difference	
13.5.6 Danish Fishing Vessels	No difference	
13.5.7 German Fishing Vessels	No difference	
13.5.8 Climate Change and Natural Trends	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
13.6 Potential Impacts		
13.6.1 Potential Impacts During Construction		
Impact 1: Potential impacts on commercially exploited fish and shellfish species	Minor adverse	Minor adverse
Impact 2: Temporary loss or restricted access to fishing grounds		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
UK local inshore vessels with high dependence on the offshore development area	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 3: Displacement of fishing activity into other areas		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
UK local inshore vessels with high dependence on the offshore development area	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse
Impact 4: Increased steaming times		
Local inshore fleet	Minor adverse	Minor adverse
Other fleet	Negligible	Negligible
Impact 5: Interference with fishing activities (navigational conflict)		
Static gear vessels	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Towed gear vessels	Negligible	Negligible
Impact 6: Safety issues for fishing vessels	Broadly acceptable	Broadly acceptable
Impact 7: Seabed obstacles	Broadly acceptable	Broadly acceptable
13.6.2 Potential Impacts during Operation		
Impact 1: Potential impacts on commercially exploited fish and shellfish species	Minor adverse	Minor adverse
Impact 2: Complete loss or restricted access to fishing grounds		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
UK local inshore vessels longliners and netters active in the windfarm site	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
German beam trawlers	Minor adverse	Minor adverse
Impact 3: Displacement of fishing activity into other areas		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
UK local inshore vessels longliners and netters active in the windfarm site	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse
Impact 4: Increased steaming times		
Local inshore fleet	Minor adverse	Minor adverse
Other fleet	Negligible	Negligible
Impact 5: Interference with fishing activities (navigational conflict)		
Static gear vessels		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Towed gear vessels	Minor adverse Negligible	Minor adverse Negligible
Impact 6: Safety issues for fishing vessels	Broadly acceptable	Broadly acceptable
Impact 7: Seabed obstacles	Broadly acceptable	Broadly acceptable
13.6.3 Potential Impacts during Decommissioning		
	Impacts 1 to 7: As for the construction phase	Impacts 1 to 7: As for the construction phase
13.7 Cumulative Impacts		
13.7.1 Construction		
Impact 1: Potential impacts on commercially exploited fish and shellfish species	Minor adverse	Minor adverse
Impact 2: Temporary loss or restricted access to fishing grounds *Dutch beam trawlers* *Dutch seine trawlers* *Other Dutch methods* *Belgian beam trawlers* *Belgian otter trawlers* *UK local inshore fleet in general* *Anglo-Dutch beam trawlers*	 Minor adverse Minor adverse Negligible Minor adverse Negligible Minor adverse Minor adverse	 Minor adverse Minor adverse Negligible Minor adverse Negligible Minor adverse Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse
Impact 3: Displacement of fishing activity into other areas		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse
Impact 4: Increased steaming times		
Local inshore fleet	Minor adverse	Minor adverse
Other fleet	Negligible	Negligible

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 5: Interference with fishing activities (navigational conflict)		
Static gear vessels	Minor adverse	Minor adverse
Towed gear vessels	Minor adverse	Minor adverse
13.7.2 Operation		
Impact 1: Potential impacts on commercially exploited fish and shellfish species	Minor adverse	Minor adverse
Impact 2: Complete loss or restricted access to fishing grounds		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 3: Displacement of fishing activity into other areas		
Dutch beam trawlers	Minor adverse	Minor adverse
Dutch seine trawlers	Minor adverse	Minor adverse
Other Dutch methods	Negligible	Negligible
Belgian beam trawlers	Minor adverse	Minor adverse
Belgian otter trawlers	Negligible	Negligible
UK local inshore fleet in general	Minor adverse	Minor adverse
Anglo-Dutch beam trawlers	Minor adverse	Minor adverse
UK Beam trawlers from south-west ports	Negligible	Negligible
French pelagic and demersal trawlers	Minor adverse	Minor adverse
Danish sandeel and pelagic trawlers	Negligible	Negligible
German beam trawlers	Minor adverse	Minor adverse
Impact 4: Increased steaming times		
Local inshore fleet	**Minor adverse**	**Negligible**
Other fleet	Negligible	Negligible
Impact 5: Interference with fishing activities (navigational conflict)		
Static gear vessels	Minor adverse	Minor adverse
Towed gear vessels	Minor adverse	Minor adverse
13.7.3 Decommissioning		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Impacts 1 to 7: As for the construction phase	Impacts 1 to 7: As for the construction phase
13.8 Inter-relationships		
	See Table 13.19 for full details of chapter topic inter-relationships	See Table 13.19 for full details of chapter topic inter-relationships
13.9 Interactions		
No difference		
13.10 Summary		
No difference		
13.11 References		
No difference		

3.7 Chapter 14 Shipping and Navigation

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
14.1 Introduction		
No difference		
14.2 Consultation		
	Minor differences in Table 14.1, see chapters for details.	
14.3 Scope		
14.3.1	No difference	
14.3.2	• Paragraph 15: The NRA (***Appendix 14.1***) that underpins this assessment is based on an early **67** wind turbine layout • Paragraph 16: Therefore, **1078m** inter-row spacing and 2200m in-row spacing within the **75** wind turbine indicative layout has been modelled, rather than the actual minimum spacing being considered.	• Paragraph 13: The NRA (***Appendix 14.1***) that underpins this assessment is based on an early **75** wind turbine layout • Paragraph 14: Therefore, **1,100m** inter-row spacing and 2200m in-row spacing within the **67** wind turbine indicative layout has been modelled, rather than the actual minimum spacing being considered.
14.3.2	Worst case parameters in Table 14.3 differ, see chapters for detail.	
14.4 Assessment Methodology		
14.4.1	No difference	
14.4.2	No difference	
14.4.3	No difference	
14.4.4	Bullet list after paragraph 28:	Bullet list after paragraph 25: • 14 days of summer AIS and Radar data recorded by an on-site survey vessel in **July 2018**; and

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• 14 days of summer AIS and Radar data recorded on site by a survey vessel during **May and June 2017**; and • Paragraph 29: The MCA has subsequently confirmed that the summer 2017 marine traffic survey does not meet the requirements of MGN 543 given the changes to final application date, therefore a second summer marine traffic survey (AIS and Radar) was undertaken in 2018. The impact assessment and NRA presented in this PEIR will therefore be updated using the most recent survey data for the NRA and ES DCO application.	
14.5 Existing Environment – Refer to East Anglia ONE North chapter, there are too many differences to highlight.		
14.6 Potential Impacts		
Potential Impacts in the Windfarm Site during Construction (Residual Impacts)		
Impact on Commercial Vessel Routeing	Broadly acceptable	Broadly acceptable
Commercial Vessel Safe Navigation	Tolerable and As Low As Reasonably Practicable (ALARP)	Tolerable and ALARP
East Anglia TWO only: Impact on Marine Aggregate Dredgers	Broadly acceptable	N/A East Anglia ONE North
Impact on Commercial Fishing Vessels	Broadly acceptable	Broadly acceptable
Impact on Recreational Craft	Broadly acceptable	Broadly acceptable
Impact on Emergency Response Capability	Broadly acceptable	Broadly acceptable

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Potential Impacts in the Windfarm Site during Operation (Residual Impacts)		
Impact on Commercial Vessel Routeing	Broadly acceptable	Broadly acceptable
Commercial Vessel Safe Navigation	**Broadly acceptable**	**Tolerable and ALARP**
East Anglia TWO only: Impact on Marine Aggregate Dredgers	Broadly acceptable	N/A
Impact on Commercial Fishing Vessels	Broadly acceptable	Broadly acceptable
Impact on Recreational Craft	Broadly acceptable	Broadly acceptable
Impact on Emergency Response Capability	Broadly acceptable	Broadly acceptable
Potential Impacts in the Windfarm Site during Decommissioning (Residual Impacts)		
Impact on Commercial Vessel Routeing	Broadly acceptable	Broadly acceptable
Commercial Vessel Safe Navigation	Broadly acceptable	Broadly acceptable
East Anglia TWO only: Impact on Marine Aggregate Dredgers	N/A	N/A East Anglia ONE North
Impact on Commercial Fishing Vessels	Broadly acceptable	Broadly acceptable
Impact on Recreational Craft	Broadly acceptable	Broadly acceptable
Impact on Emergency Response Capability	N/A	N/A

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Potential Impacts in the Offshore Cable Corridor During Construction (Residual Impacts)		
Impact on Commercial Vessel Routeing	No perceptible effect	No perceptible effect
Commercial Vessel Safe Navigation	No perceptible effect	No perceptible effect
East Anglia TWO only: Impact on Marine Aggregate Dredgers	No perceptible effect	N/A East Anglia ONE North
Impact on Commercial Fishing Vessels	No perceptible effect	No perceptible effect
Impact on Recreational Craft	No perceptible effect	No perceptible effect
Impact on Emergency Response Capability	See impact on windfarm site	See impact on windfarm site
Potential Impacts in the Offshore Cable Corridor during Operation (Residual Impacts)		
Impact on Commercial Vessel Routeing	No perceptible effect	No perceptible effect
Commercial Vessel Safe Navigation	Broadly acceptable	Broadly acceptable
East Anglia TWO only: Impact on Marine Aggregate Dredgers	Broadly acceptable	N/A East Anglia ONE North
Impact on Commercial Fishing Vessels	No perceptible effect	No perceptible effect
Impact on Recreational Craft	No perceptible effect	No perceptible effect
Impact on Emergency Response Capability	See impact on windfarm site	See impact on windfarm site

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Potential Impacts in the Offshore Cable Corridor during Decommissioning (Residual Impacts)		
Impact on Commercial Vessel Routeing	No perceptible effect	No perceptible effect
Commercial Vessel Safe Navigation	No perceptible effect	No perceptible effect
East Anglia TWO only: Impact on Marine Aggregate Dredgers	N/A	N/A East Anglia ONE North
Impact on Commercial Fishing Vessels	No perceptible effect	No perceptible effect
Impact on Recreational Craft	No perceptible effect	No perceptible effect
Impact on Emergency Response Capability	See impact on windfarm site	See impact on windfarm site
Cumulative Impacts during Construction		
Commercial Vessel Routeing	Tolerable and ALARP	Tolerable and ALARP
Commercial Vessel Safe Navigation	Tolerable and ALARP	Tolerable and ALARP
Cumulative Impacts during Operation		
Commercial Vessel Routeing	Broadly acceptable	Broadly acceptable
Commercial Vessel Safe Navigation	Broadly acceptable	Broadly acceptable
Cumulative Impacts during Decommissioning		
Commercial Vessel Routeing	N/A	N/A
Commercial Vessel Safe Navigation	N/A	N/A

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
14.8 Transboundary Impacts		
	Paragraph 239: Transboundary impacts for shipping and navigation receptors include vessels routeing from the UK to the Netherlands, Belgium and **Denmark** that may be impacted by projects within both UK waters and transboundary waters.	Paragraph 218: Transboundary impacts for shipping and navigation receptors include vessels routeing from the UK to the Netherlands, Belgium and **Germany** that may be impacted by projects within both UK waters and transboundary waters.
14.9 Inter-relationships		
	Table 14.13 differs by East Anglia ONE North not having the “Impacts on Aggregate Dredging Activities” bottom row.	
14.10 Summary – minor differences in Impacts and their residual significance as outlined above		
14.11 References		
	UKHO. (2017) Admiralty Sailing Directions – **Dover Strait Pilot**, NP28, Somerset: UKHO.	UKHO. (2017) Admiralty Sailing Directions - **North Sea West Pilot**, NP28, Somerset: UKHO.

3.8 Chapter 15 Civil and Military Aviation and Radar

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
15.1 Introduction		
No difference		
15.2 Consultation		
No difference		
15.3 Scope		
15.3.1 Study Area	Paragraph 16 The proposed East Anglia TWO project would consist of between **48 (300m wind turbines) and 75 (250m wind turbines).** See sections 15.3.1.1 and 15.3.1.2 for distances between the East Anglia TWO windfarm site and Civil and Military Aviation receptors	Paragraph 15 The proposed East Anglia ONE North project would consist of between **42 (300m wind turbines) and 67 (250m wind turbines) on a 208km^2 site**. See sections 15.3.1.1 and 15.3.1.2 for distances between the East Anglia ONE North windfarm site and Civil and Military Aviation receptors
15.3.2 Worst Case	See Table 15.2 for details of worst case scenarios	See Table 15.2 for details of worst case scenarios
15.3.3 Embedded Mitigation	No difference	
15.4 Assessment Methodology		
15.4.1 Guidance	No difference	
15.4.2 Data Sources	No difference	
15.4.3 Impact Assessment Methodology	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
15.4.4 Cumulative Impact Assessment	No difference	
15.4.5 Transboundary Impact Assessment	No difference	
15.5 Existing Environment		
15.5.1 Radar Modelling	No difference	
15.5.2 Airspace	No difference	
15.5.3 Flight Procedures and ATS Provided	No difference	
15.5.4Anticipated Trends in Baseline Condition	No difference	
15.6 Potential Impacts		
15.6.1 Potential Impacts During Construction (Residual Impacts)		
Creation of an Aviation Obstacle Environment	Not significant	Not significant
Wind turbines causing permanent interference on civil and military radars	No change	No change
Increased air traffic in the area related to windfarm activities	Not significant	Not significant
15.6.2 Potential Impacts during Operation (Residual Impacts)		
Creation of an aviation obstacle environment	Not significant	Not significant
Wind turbines causing permanent interference on civil and military radars	Not significant	Not significant
Increased air traffic in the area related to windfarm activities	Not significant	Not significant
15.6.3 Potential Impacts during Decommissioning (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Creation of an aviation obstacle environment	No change	No change
Wind turbines causing permanent interference on civil and military radars	No change	No change
Increased air traffic in the area related to windfarm activities	Not significant	Not significant
15.7 Cumulative Impacts		
Creation of an aviation obstacle environment	Not significant	Not significant
Wind turbines causing permanent interference on civil and military radars	Not significant	Not significant
Increased air traffic in the area related to windfarm activities	Not significant	Not significant
15.8 Transboundary Impacts		
No difference		
15.9 Inter-relationships		
No difference		
15.10 Interactions		
No difference		
15.11 Summary		
No difference		
15.12 References		
No difference		

3.9 Chapter 16 Marine Archaeology and Cultural Heritage

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
16.1 Introduction		
No difference		
16.2 Consultation		
No difference		
16.3 Scope		
16.3.1	Areas of the project's windfarm sites and offshore cable corridors differ as per section 2.6.1.	
16.3.2	Table 16.2 worst case parameters differ, see chapters for detail.	
16.4 Assessment Methodology		
16.4.1	No difference	
16.4.2	Second row Table 16.6 differs. East Anglia ONE North data confidence is variable but still considered suitable for archaeological assessment.	
16.4.3	No difference	
16.4.4	No difference	
16.4.5	No difference	
16.4.6	No difference	
16.5 Existing Environment		
16.5.1	Minor differences in Table 16.13 – see rows Unit 5 and 3 Large differences in the existing environment in this section – see chapters for details.	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
16.5.2	Differences in anomalies identified in Tables 16.14 and 16.15	
16.5.2	• Paragraph 92: Of the six wrecks (A1) within the windfarm site four have previously been charted by the UKHO. Anomaly 70717 (*Appendix 16.1*, Wreck Sheet 1) relates to an unknown wreck (UKHO ID 11189) while 70684 and 700106 (*Appendix 16.1*, Wreck Sheet 2) relate to two parts of a further wreck, also of unknown identity (UKHO ID 10942). Features 700107, 700108 and 700109 have been identified as items of debris (A1) associated with 70684/700106. The fourth, previously identified anomaly (70707) (*Appendix 16.1*, Wreck Sheet 3) corresponds to UKHO record (ID 10941) for the Belgian trawler *Dolfijn*, lost in 1970, and hence a modern vessel of limited archaeological interest. Two small items of debris (A1) (700065 and 700066) are also thought to be associated wreck 70707. • Paragraph 93: Two further wrecks have not previously been identified. Wreck 76951 (Appendix 16.1, Wreck Sheet 4) is a large area of debris with a very large associated magnetic anomaly, measuring 1,424nT, indicating a significant amount of ferrous material. Wreck 700104 (Appendix 16.1, Wreck Sheet 5) is a distinct edged wreck, relatively intact, with slatted dark reflectors in its centre but with very little height, which might suggest that it is partially buried or in a poorly preserved state. • Paragraph 94: A total of **331** anomalies have been discriminated as A2 • Paragraph 95: **One feature has been given an A3 discrimination within the windfarm site. Feature**	Paragraph 96: Of the **two** wrecks (A1) within the windfarm site, only one has previously been charted by the UKHO. **Anomaly 70609 (*Appendix 16.1*, Wreck Sheet 1) relates to the possible remains of *Edinardu Antoinette* a Belgian sailing/fishing vessel which sank following a collision in 1926. The second A1 anomaly, 77111, (*Appendix 16.1*, Wreck Sheet 2) is described as a collection of debris, interpreted as being an unknown wreck.**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	70700 is a possible wreck that was previously identified by Gardline in 2010 (Gardline 2011) but which has not been identified by Wessex Archaeology during this, nor previous, archaeological assessment.	• Paragraph 97: total of **514** anomalies have been discriminated as A2
16.5.2	Table 16.17 differs, see chapters for details. • Paragraph 101 in East Anglia ONE North has an additional sentence at the end, as follows: **In addition, one recorded wreck (700565) was assigned an A1 archaeological discrimination as, although it was not covered by the geophysical data, a large magnetic anomaly on the closest line of magnetometer data indicated the wrecks presence on the seabed.**	
16.5.2	• Paragraph 102: **two further anomalies have… Finally, one recorded wreck (700565) was assigned an A1 archaeological discrimination as, although it was not covered by the geophysical data, a large magnetic anomaly on the closest line of magnetometer data indicated the wrecks presence on the seabed.**	• Paragraph 104: **anomaly 700600 has** also been classified as A1.
16.5.3	No difference	
16.5.4	Slight differences in Table 16.22 – In East Anglia ONE North the addition of 'Mud Plains' in Cultural Topography, the omission of buoyage, addition of 'Harwich – Hook of Holland Ferry/Kinston upon Hull – Zeebrugge Ferry' in Navigation and the omission of 'Recreational Open Ground' in Recreation.	
16.5.4	• Paragraph 125: **Within the East Anglia TWO windfarm site, all but one of the wrecks and anomalies are currently unidentified and as such there is no further information which can be used to ascertain the contribution the setting makes to their significance. That wreck which has been identified is modern in date and**	• Paragraph 126: **Within the East Anglia ONE North windfarm site only one of the wrecks is currently identified. The setting of the wreck of the *Edinardue Antoinette* (70609) may be considered to contribute to its significance in terms of its loss and subsequent survival within its area of operation as a Belgian fishing vessel. However, the identity of the wreck is tentative and is yet to be confirmed. For the**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	is not considered to be of archaeological interest. • Paragraph 126: Within the East Anglia **TWO** offshore cable corridor, **five** of the named wrecks were lost during the hostilities of WWI (700244, 700255 and **700786**) and WWII (70645 and 700591).	**unidentified wreck (77111) there is no further information which can be used to ascertain the contribution the setting makes to its significance.** • Paragraph 127: Within the East Anglia ONE North cable corridor, **four** of the named wrecks were lost during the hostilities of WWI (700244 and 700255) and WWII (70645 and 700591).
16.5.5	Table 16.23 differs slightly, see chapters for details.	
16.5.5	• Paragraph 130: The named **wrecks** of the ***Dolfijn* (70707, including associated debris 700065 and 700066**) and the *St Patrick* (70641, including associated debris 700829) are modern wreck sites and are assigned low heritage importance on this basis.	• Paragraph 131: The named wreck of the *St Patrick* (70641, including associated debris 700829) is a modern wreck site and is assigned low heritage importance on this basis. • Paragraph 132: **The *Edinardue Antoinette* sank following a collision in 1926.**
16.5.6	No difference	
16.6 Potential Impacts		
16.6.1 Potential Impacts During Construction		
Impact 1: Direct Impact to Known Heritage Assets		
Wrecks and Anomalies (A1)	No Impact	No Impact
A3 wrecks	No Impact	No Impact
Additional Anomalies (A2)	No Impact	No Impact
Intertidal Assets	No Impact	No Impact

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 2: Direct Impact to Potential Heritage Assets		
In situ prehistoric, maritime or aviation sites	Minor adverse	Minor adverse
Intertidal assets	No impact	No impact
Isolated finds	Minor adverse	Minor adverse
Impact 3: Indirect Impact to Heritage Assets from Changes to Physical Processes	No impact	No impact
Impact 4: Impacts to the Setting of Heritage Assets and Historic Seascape Character	Perceptions of historic character will remain unchanged or will result in a potential beneficial change. In terms of setting, it has been concluded that any changes to setting due to construction activities would be temporary and of sufficiently short duration that they would not give rise to material harm (see ***Chapter 24 Archaeology and Cultural Heritage*** for further information regarding onshore and inter-tidal heritage assets).	
Impact 5: Impacts to Site Preservation Conditions from Drilling Fluid Breakout	Negligible / Minor adverse	Negligible / Minor adverse
16.6.2 Potential Impacts during Operation		
Impact 1: Direct Impact to Known Heritage Assets	No impact	No impact
Impact 2: Direct Impact to Potential Heritage Assets	Minor adverse	Minor adverse
Impact 3: Indirect Impact to Heritage Assets from Changes to Physical Processes	Negligible	Negligible

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 4: Impacts to the Setting of Heritage Assets and Historic Seascape Character	Perceptions of historic character will remain unchanged or will result in a potential beneficial change. The planned infrastructure at the landfall, comprising buried cables installed using HDD, is not considered to give rise to material harm to the setting of intertidal assets. The baseline setting of known wrecks within the offshore cable corridor are already influenced by passing vessels in this area associated with industry, fishing and recreation, thereby reducing the sensitivity and potential magnitude of change. The potential impact to the setting of marine heritage assets is considered to be of negligible magnitude and of **minor adverse** significance.	
Impact 5: Impacts to Site Preservation Conditions from Heat Loss from Installed Cables	No impact	No impact
16.6.3 Potential Impacts during Decommissioning		
Impact 1: Direct Impact to Known Heritage Assets	No impact	No impact
Impact 2: Direct Impact to Potential Heritage Assets	Minor adverse	Minor adverse
Impact 3: Indirect Impact to Heritage Assets from Changes to Physical Processes	No impact	No impact
Impact 4: Impacts to the Setting of Heritage Assets and Historic Seascape Character	Perceptions of historic character will remain unchanged or will result in a potential beneficial change. In terms of setting, it has been concluded that any changes to setting due to decommissioning activities would be temporary and of sufficiently short duration that they would not give rise to material harm (see ***Chapter 24 Archaeology and Cultural Heritage*** for further information regarding onshore and inter-tidal heritage assets).	
16.7 Cumulative Impacts		
Cumulative direct impact to potential heritage assets	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Cumulative impacts to the setting of heritage assets and historic seascape character	No overall significance value evaluated however no difference between the discussion of impact in the East Anglia TWO and East Anglia ONE North chapters.	
Cumulative beneficial impact of accumulation of data	No overall significance value evaluated however no difference between the discussion of impact in the East Anglia TWO and East Anglia ONE North chapters.	
16.8 Inter-relationships		
No difference		
16.9 Interactions		
No difference		
16.10 Summary		
No difference between assessed values of significance of impacts as outlined above.		
16.11 References		
No difference		

3.10 Chapter 17 Infrastructure and Other Users

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
17.1 Introduction		
No difference		
17.2 Consultation		
	Table 17.1 Consultation Responses: The Crown Estate, 01/12/2017 Draft AfL Application. Initial draft of the East Anglia TWO export cable corridor sent to The Crown Estate for review. The Crown Estate responded with comments (01/12/2017) in relation to potentially important aggregate areas and seabed sterilisation with adjacent East Anglia ONE cable corridor. Comments provided by The Crown Estate were incorporated into the development of the offshore cable corridor. Details on this are provided in Chapter 4 Site Selection and Assessment of Alternatives and discussed in section 17.6.	N/A
17.3 Scope		
17.3.1 Study Area	No difference	
17.3.2 Worst Case	Table 17.2 Realistic Worst Case Scenarios Impact 1: Impacts on sub-sea cables Up to **75** wind turbines, 1 met mast, up to **435km** of cable and up to **85** cable crossings.	Table 17.2 Realistic Worst Case Scenarios Impact 1: Impacts on sub-sea cables Up to **67** wind turbines, 1 met mast, up to **427km** of cable and up to **113** cable **and pipeline** crossings.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
17.3.3 Embedded Mitigation	Paragraph 17: The **East Anglia TWO** offshore cable corridor **southern route was therefore aligned with the East Anglia ONE / East Anglia THREE offshore cable corridor** to minimise sterilisation of areas of potential aggregate resource **after discussion with The Crown Estate** (see Chapter 4 Site Selection Assessment of Alternatives **section 4.3.3.1.2**). The overlap of the offshore cable corridor with the area of high potential aggregate resource identified within the East Marine Plan (HM Government 2014) is approximately **92km^2** (**1.7%** of AGG3 area). Paragraph 18: **The Crown Estate also identified a former licenced aggregate area within the offshore cable corridor southern route. The offshore cable corridor southern route was therefore routed to avoid this area as far as practically possible (see Chapter 4 Site Selection and Assessment of Alternatives) however, it was not possible to avoid the area entirely and there is an overlap of 0.6km^2 which represents 5.6% of the total area of the withdrawn licence area as shown in Figure 17.4.**	Paragraph 16: The **East Anglia ONE North** offshore cable corridor **has been developed** to minimise sterilisation of the areas of potential aggregate resource (see Chapter 4 Site Selection Assessment of Alternatives section **4.5.3**). The overlap of the offshore cable corridor with the area of high potential aggregate resource identified within the East Marine Plan (HM Government, 2014) is approximately **50km^2** (**0.9%** of AGG3 area).
17.3.4 Monitoring	No difference	
17.4 Assessment Methodology		
17.4.1 Guidance	No difference	
17.4.2 Data Sources	No difference	
17.4.3 Impact Assessment Methodology	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
17.4.4 Cumulative Impact Assessment	No difference	
17.4.5 Transboundary Impact Assessment	Paragraph 34: Transboundary assets that interact with the **East Anglia TWO** offshore development area are Concerto (active) and **Hermes (not in use)** telecommunications cables	Paragraph 34: Transboundary assets that interact with the **East Anglia ONE North** offshore development area are Concerto (active) and **Ulysses 2** telecommunications cables and **Bacton–Zeebrugge gas pipeline.**
17.5 Existing Environment		
	Table 17.11 Direct Infrastructure Overlap with the Offshore Development Area Sector: Pipelines Direct overlap with Offshore Development Area: **See section 17.5.3**	Table 17.11 Direct Infrastructure Overlap with the Offshore Development Area Sector: Pipelines Direct overlap with Offshore Development Area: **None**
17.5.1 UK Southern North Sea Windfarms	• Paragraph 38: Aside from the other developments within the former East Anglia Zone, the nearest UK offshore windfarm to the East Anglia TWO windfarm site is the 336MW Galloper Wind Farm situated **7km** to the south-west. • See **Table 17.12** UK Offshore Windfarm Projects within 100km of the **East Anglia TWO Windfarm Site** • Paragraph 41: **The East Anglia ONE** and East Anglia THREE export cables pass through the **East Anglia TWO windfarm site**.	• Paragraph 38: Aside from the other developments within the former East Anglia Zone, the nearest UK offshore windfarm to the East Anglia ONE North windfarm site is the 336MW Galloper Wind Farm situated **39km** to the south-west. • **See Table 17.12** UK Offshore Windfarm Projects within 100km of the **East Anglia ONE North Windfarm Site** • Paragraph 41: The East Anglia THREE export cables passes through the **East Anglia ONE North windfarm site**.
17.5.2 European Offshore Windfarm Developments	Paragraph 43: The closest international windfarm developments are Borssele 1 and 2, Borssele 3 and 4 (Netherlands) and Mermaid (Belgium) which are	Paragraph 43: The closest international windfarm developments are Borssele 1 and 2, Borssele 3 and 4 (Netherlands) and Mermaid (Belgium) which are situated

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	situated approximately **40km** south-east of the **East Anglia TWO** windfarm site	approximately **50km** south-east of the **East Anglia ONE North windfarm site.**
17.5.3 Oil and Gas Activity	• Paragraph 44: There is no surface or subsurface infrastructure in the **East Anglia TWO** windfarm site. Within **50km** of the **East Anglia TWO** offshore development area there are **ten** wells, with the closest being **1km** away. However, these wells are of **'plugged' or 'abandoned'** status and will 'never be used or re-entered again' (Oil and Gas Authority 2018). • Paragraph 45: There **are no pipelines located within the East Anglia TWO offshore development area**. **Two gas pipelines cross the former East Anglia Zone, the Balgzand-Bacton Line (BBL) gas pipeline running east – west, 48km north of the East Anglia TWO windfarm site, and the Bacton-Zeebrugge interconnector running northwest to southeast, 9km northeast of the East Anglia TWO offshore development area**. • Paragraph 47: Given that there are no overlaps between the **East Anglia TWO** offshore development area and oil and gas activities, there is no pathway for impact and these are not considered further.	• Paragraph 44: There is no surface or subsurface infrastructure in the **East Anglia ONE North** windfarm site. Within **40km** of the offshore development area there are **12** wells, with the closest being **4.6km** away. However, these wells are of **AB3 status** and will never be used or re-entered again (Oil and Gas Authority 2018). • Paragraph 45: **There are two gas pipelines that cross the former East Anglia Zone, the Bacton-Zeebrugge gas pipeline running northwest to southeast, crossing the offshore cable corridor (that will require two crossings), and the Balgzand-Bacton Line (BBL) gas pipeline running east to west, 35km north of the East Anglia ONE North windfarm site.** • **Paragraph 46: Crossing agreements and proximity agreements would be finalised prior to construction commencing with the owners of the Bacton-Zeebruge gas pipeline. The agreements would include conditions for the design of these crossings to ensure that there is no impact upon the operation of existing infrastructure. Crossing agreements and proximity agreements would consider industry best practice guidance such as ESCA (2016) (section 17.4.1)** • Paragraph 48: Given that there are no overlaps between the offshore development area and oil and gas activities **(with the exception of the Bacton-Zeebrugge gas pipeline),** there is no pathway for impact and these are not considered further. **The**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
		Bacton-Zeebrugge gas pipeline is considered together with impact on cables in section 17.6.1.1.
17.5.4 Sub-Sea Cables	See **Table 17.13 Summary of Offshore Cables Which Intersect the Offshore Development Area** Paragraph 49: As the Atlantic Crossing cable is out of service, it is anticipated that cable sections would be removed rather than crossed thus allowing **East Anglia TWO** offshore export cables to be buried. However, if cutting the Atlantic Crossing cables is not possible there is the potential for up to **55** cable crossings within the **East Anglia TWO** windfarm site (i.e. **East Anglia TWO** cables crossing with Atlantic Crossing and the **East Anglia ONE and East Anglia THREE** offshore export cables). Paragraph 50: The worst case for total number of cable crossings are as follows: • Export cable: 30 crossings; • Platform link cables: **30** crossings; and • Inter-array cables: **25** crossings.	See **Table 17.13 Summary of Offshore Cables Which Intersect Offshore Development Area** **Paragraph 50:** As the Atlantic Crossing cable is out of service, it is anticipated that cable sections would be removed rather than crossed thus allowing **East Anglia ONE North** offshore export cables to be buried. However, if cutting the Atlantic Crossing cables is not possible there is the potential for up to **79** cable crossings within the **East Anglia ONE North** windfarm site (i.e. **East Anglia ONE North** cables crossing with Atlantic Crossing and the **East Anglia THREE** offshore export cables). Paragraph 50: The worst case for total number of cable crossings are as follows: • Export cable: 30 crossings; • Platform link cables: **49** crossings; and • Inter-array cables: **30** crossings.
17.5.5 Marine Aggregates	• Paragraph 52: There are no licenced aggregate dredging areas within the offshore development area as shown in Figure 17.3. The closest dredging area is licence area 430 (Southwold Aggregates Area) which lies **3km west of the East Anglia TWO windfarm site (3.4km to the south of the offshore cable corridor northern route and 3.6km to the north of the southern route)**. This licence area is operated jointly by Cemex and Tarmac Marine Limited.	• Paragraph 53: There are no licenced aggregate dredging areas within the offshore development area (see Figure 17.5). The closest dredging area is licence area 430 (Southwold Aggregates Area) which lies **4km south- of the offshore cable corridor (17km south-west of the East Anglia ONE North windfarm site).** This licence area is operated jointly by Cemex and Tarmac Marine Limited.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• Paragraph 53: As discussed in section 17.3.3. **East Anglia TWO offshore cable corridor southern route has been aligned with the East Anglia ONE / East Anglia THREE** offshore cable corridor to minimise sterilisation of areas of potential aggregate resource to just **1.7%** of the potential resource area **(see Chapter 4 Site Selection Assessment of Alternatives section 4.3.3.1.2). the offshore cable corridor southern route was also amended to avoid a former licenced aggregate area (see Figure 17.4) as far as practically possible (see section 17.3.3).**	• Paragraph 54: As discussed in section 17.3.3 the **East Anglia ONE North** offshore cable corridor has been developed to minimise sterilisation of the areas of potential aggregate resource to just **0.9%** of the potential resource area.
17.5.6 Dumping and Disposal Sites	• Paragraph 56; The **East Anglia TWO** windfarm site overlaps the East Anglia THREE disposal site (HU212) (Figure 17.3). HU212 will be used to dispose of sea bed sediment dredged during the construction of East Anglia THREE. **A new disposal site will be applied for to enable disposal of sediment during the construction of the East Anglia TWO windfarm and installation of the offshore cables.** • Paragraph 57: **Site NS111 (North Sea Dredge Test) (Figure 17.3) is closed and is known to have received 13,500 tonnes of sediment in 1998.** • Paragraph 58: **Other disposal sites in the vicinity of the offshore cable corridor are shown on Figure 17.3 and include the following:**	Paragraph 57: The **East Anglia ONE North** windfarm site overlaps three disposal sites (***Figure 17.4)***: • HU212 which will be used to dispose of seabed sediment dredged during the construction of East Anglia THREE. • **Warren Springs Environmental research Laboratory site (TH075), a closed disposal site; and** • **AEA experimental site (TH026) designated for tracers[3]. The site is closed and not for waste disposal, records indicate that it has never been used.** Paragraph 58: **Other disposal sites in the vicinity of the offshore cable corridor are shown on Figure 17.4 and include site TH057, Galloper Wind Farm, open for**

[3] Materials and substances that range from inert particles and soluble fluorescent dyes to radioactive / biocidal substances and bacterial microbial cells. Their deployment allows for the investigation of water and sediment movement (MMO 2014).

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• **Site TH026, designated for tracers, the site is closed and not for waste disposal, records indicate that it has never been used;** **Site TH057, Galloper Windfarm, is open for the disposal of pre-sweep material and drill arisings during construction.**	**the disposal of pre-sweep material and drill arisings during construction.**
17.5.7 Ministry of Defence Activities	• Paragraph 61: No Military practice and exercise areas (PEXAs) overlap with the **East Anglia TWO** offshore development area. The nearest PEXA sites are located **5km** south (**North Galloper – X5121**) and **9km south-west** (**Outer Gabbard - X5117**) of the **East Anglia TWO windfarm site**. There are no areas designated as submarine exercise areas or live firing areas **in the vicinity of the East Anglia TWO offshore development area.** • Paragraph 62: There are currently two MOD identified explosives dumping grounds **3km** west and 41km south-west of the offshore cable corridor that are currently not in use	• Paragraph 61: No Military practice and exercise areas (PEXAs) overlap with the offshore development area. The nearest PEXA sites are located **27km** south (**Outer Gabbard - X5117**) and **33km south-east** (**North Galloper – X5121**) of the **offshore cable corridor.** There are no areas designated as submarine exercise areas or live firing areas **in the vicinity of the offshore development area.** • Paragraph 62: There are currently two MOD identified explosives dumping grounds **31km** and 41km south-west of the offshore cable corridor that are currently not in use.
17.5.1 UK Southern North Sea Windfarms	• Paragraph 38: Aside from the other developments within the former East Anglia Zone, the nearest UK offshore windfarm to the East Anglia TWO windfarm site is the 336MW Galloper Wind Farm situated **7km** to the south-west. • See **Table 17.12** UK Offshore Windfarm Projects within 100km of the **East Anglia TWO Windfarm Site**	• Paragraph 38: Aside from the other developments within the former East Anglia Zone, the nearest UK offshore windfarm to the East Anglia ONE North windfarm site is the 336MW Galloper Wind Farm situated **39km** to the south-west. • **See Table 17.12** UK Offshore Windfarm Projects within 100km of the **East Anglia ONE North Windfarm Site**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• Paragraph 41: **The East Anglia ONE** and East Anglia THREE export cables pass through the **East Anglia TWO windfarm site**.	• Paragraph 41 The East Anglia THREE export cables passes through the **East Anglia ONE North windfarm site**.
17.5.2 European Offshore Windfarm Developments	Paragraph 43 The closest international windfarm developments are Borssele 1 and 2, Borssele 3 and 4 (Netherlands) and Mermaid (Belgium) which are situated approximately **40km** south-east of the **East Anglia TWO** windfarm site	Paragraph 43 The closest international windfarm developments are Borssele 1 and 2, Borssele 3 and 4 (Netherlands) and Mermaid (Belgium) which are situated approximately **50km** south-east of the **East Anglia ONE North windfarm site.**
17.6 Potential Impacts		
17.6.1 Potential Impacts During Construction (Residual Impacts)		
Impact 1: Impacts on Sub-Sea Cables	Minor adverse	Minor adverse
Impact 2: Impacts on EDF Energy Infrastructure	Minor adverse	Minor adverse
17.6.2 Potential Impacts during Operation		
Impact 1: Impacts on Sub-Sea Cables	Minor adverse	Minor adverse
Impact 2: Impacts on EDF Energy Infrastructure	Minor adverse	Minor adverse
17.6.3 Potential Impacts during Decommissioning		
Impact 1: Impacts on Sub-Sea Cables	No change	No change
Impact 2: Impacts on EDF Energy Infrastructure	No change	No change
17.7 Cumulative Impacts		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
17.8 Transboundary Impacts		
No difference		
17.9 Interactions		
No difference		
17.10 Inter-relationships		
No difference		
17.11 Summary		
No difference		
17.12 References		
No difference		

4 Signposting of Onshore Chapters

4.1 Chapter 18 Ground Conditions and Contamination

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
18.1 Introduction		
No difference		
18.2 Consultation		
No difference		
18.3 Scope		
No difference		
18.4 Assessment Methodology		
18.4.1 Legislation, Guidance and Policy	No difference	
18.4.2 Data Sources	No difference	
18.4.3 Impact Assessment Methodology	No difference	
18.4.4 Cumulative Impact Assessment	• Paragraph 41 states that the Cumulative Impact Assessment will initially consider the cumulative impact with only the proposed **East Anglia ONE North project** against two different construction scenarios.	• Paragraph 41 states that the Cumulative Impact Assessment will initially consider the cumulative impact with only the proposed **East Anglia TWO project** against two different construction scenarios.
18.4.5 Transboundary Impact Assessment	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
18.5 Existing Environment		
No difference		
18.6 Potential Impacts		
18.6.1 Potential Impacts During Construction (Residual Impacts)		
Impact 1: Impact to Human Health Including Construction Workers and Public During Any Construction Related Excavations	Minor adverse	Minor adverse
Impact 2: Impact on Groundwater Quality of the Principle Aquifer and Source Protections Zones from Construction	Minor adverse.	Minor adverse.
Impact 3: Impact on Groundwater Quality of Principle Aquifer Including Source Protection Zones from Trenchless Crossing and Piling Activities	Minor adverse.	Minor adverse.
Impact 4: Impact on Surface Water Quality from Contamination of Groundwaters and Subsequent Discharge	Minor adverse.	Minor adverse.
Impact 5: Sterilisation of Mineral Resources	Minor adverse.	Minor adverse.
18.6.2 Potential Impacts during Operation		
Scoped out of the assessment, as agreed with stakeholders and stated in the Scoping Report (SPR 2017)		
18.6.3 Potential Impacts during Decommissioning		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
18.7 Cumulative Impacts		
18.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Impact 1: Impacts to human health, including construction workers and public during any excavations associated with construction.	Minor adverse	Minor adverse
Impact 2: Impacts on groundwater quality of aquifers from general construction activity	Minor adverse	Minor adverse
Impact 3: Impact on groundwater quality of the principle aquifer including source protection zone from HDD and piling.	Minor adverse	Minor adverse
Impact 4: Impact to surface water quality from the contamination of groundwater and discharge to the surface.	Minor adverse	Minor adverse
Impact 5: Sterilisation of mineral resources.	Minor adverse	Minor adverse
18.7.2 Cumulative Impact Assessment with Other Developments		
18.7.2.1.1 Cumulative Impact 1: Impact to Human Health Including Construction Workers and the Public During Construction Stage Activities	Minor adverse	Minor adverse
18.7.2.1.2 Cumulative Impact 2: Impact to Groundwater Quality of Aquifers, including	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
source protection zones during construction stage activities		
18.7.2.1.3 Cumulative Impact 3: Impact to Groundwater Quality of the Principle Aquifer including Source Protection Zones from HDD and Piling	Minor adverse.	Minor adverse.
18.7.2.1.4 Cumulative Impact 4: Impact on Surface Water Quality from Direct and Indirect Contamination of Surface Water Bodies	Minor adverse	Minor adverse
18.7.4.1.5 Cumulative Impact 5: Impact to Strategic Mineral Resources	Minor adverse	Minor adverse
18.7.2.2 Cumulative Impacts during Decommissioning		
No difference		
18.8 Inter-relationships		
No difference		
18.9 Interactions		
No difference		
18.10 Summary		
No difference		
18.11 References		
No difference		

4.2 Chapter 19 Air Quality

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
19.1 Introduction		
No difference		
19.2 Consultation		
No difference		
19.3 Scope		
No difference		
19.4 Assessment Methodology		
19.4.1 Guidance	No difference	
19.4.2 Data Sources	No difference	
19.4.3 Impact Assessment Methodology	No difference	
19.4.4 Cumulative Impact Assessment	• The proposed **East Anglia TWO project** Cumulative Impact Assessment (CIA) initially considers the cumulative impact with only the proposed **East Anglia ONE North project** against two different construction scenarios	• The proposed **East Anglia ONE North project** Cumulative Impact Assessment (CIA) initially considers the cumulative impact with **only the proposed East Anglia TWO project** against two different construction scenarios.
19.4.5 Transboundary Impact Assessment	No difference	
19.5 Existing Environment		
19.5.1 Air Quality Monitoring Data	No difference	
19.5.2 Background Pollutant Concentrations	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
19.5.3 Identification of Receptors	No difference	
19.5.4 Anticipated Trends in the Baseline Condition	No difference	
19.6 Potential Impacts (Residual Impacts)		
19.6.1 Potential Impacts During Construction		
Impact 1: Construction Phase Dust and Fine Particulate Matter Emissions	Not significant	Not significant
Impact 2: Construction Phase Road Traffic Exhaust Emissions	Not significant	Not significant
19.6.2 Potential Impacts during Decommissioning		
No difference		
19.7 Cumulative Impacts (Residual Impacts)		
19.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Cumulative Impact 1: Construction phase dust and fine particulate matter	Not significant	Not significant
Cumulative Impact 2: Construction phase road traffic emissions	Not significant	Not significant
19.7.2 Cumulative Impact Assessment with Other Developments		
Cumulative Impact 1: Construction phase dust and fine particulate matter	Not significant	Not significant

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Cumulative Impact 2: Construction phase road traffic emissions	Not significant	Not significant
19.8 Inter-relationships		
No difference		
19.9 Interactions		
No difference		
19.10 Summary		
No difference		
19.11 References		
No difference		

4.3 Chapter 20 Water Resources and Flood Risk

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
20.1 Introduction		
No difference		
20.2 Consultation		
No difference		
20.3 Scope		
No difference		
20.4 Assessment Methodology		
20.4.1 Guidance	No difference	
20.4.2 Data Sources	No difference	
20.4.3 Impact Assessment Methodology	No difference	
20.4.4 Cumulative Impact Assessment	• Paragraph 52 states that the proposed **East Anglia TWO project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **East Anglia ONE North project** against two different construction scenarios.	• Paragraph 52 states that the proposed **East Anglia ONE North project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **East Anglia TWO project** against two different construction scenarios.
20.4.5 Transboundary Impact Assessment	No difference	
20.5 Existing Environment		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
20.6 Potential Impacts (Residual Impacts)		
20.6.1 Potential Impacts During Construction		
Impact 1: Direct Disturbance of Surface Water Bodies	• Minor adverse on the Hundred River; • No impacts on the coastal fringe, Leiston Beck, Friston Watercourse and groundwater.	• Minor adverse on the Hundred River; • No impacts on the coastal fringe, Leiston Beck, Friston Watercourse and groundwater.
Impact 2: Increase Sediment Supply	• Minor adverse in the Hundred River, Leiston Beck and Friston Watercourse • No impacts on the coastal fringe or groundwater.	• Minor adverse in the Hundred River, Leiston Beck and Friston Watercourse • No impacts on the coastal fringe or groundwater.
Impact 3: Accidental Release of Contaminants	• Minor adverse in the Hundred River, Leiston Beck and Friston Watercourse and groundwater. • No impacts on surface water receptors in the coastal fringe.	• Minor adverse in the Hundred River, Leiston Beck and Friston Watercourse and groundwater. • No impacts on surface water receptors in the coastal fringe.
Impact 4: Changes to Surface Water Runoff and Flood Risk	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and underlying groundwater. • No impacts on surface water receptors in the coastal fringe.	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and underlying groundwater. • No impacts on surface water receptors in the coastal fringe.
20.6.2 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Changes to Surface Water Runoff, Groundwater Flows and Flood Risk	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and underlying groundwater. • No impacts on surface water receptors in the coastal fringe.	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and underlying groundwater. • No impacts on surface water receptors in the coastal fringe.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 6: Supply of Fine Sediment and Other Contaminants	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and underlying groundwater. • No impacts on surface water receptors in the coastal fringe.	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and underlying groundwater. • No impacts on surface water receptors in the coastal fringe.
20.6.3 Potential Impacts during Decommissioning		
No difference		
20.7 Cumulative Impacts (Residual Impacts)		
20.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Cumulative Construction Impact 1: Direct disturbance of surface water bodies	• Minor adverse in the Hundred River • No impact in the coastal fringe, Leiston Beck, Friston Watercourse and groundwater.	• Minor adverse in the Hundred River • No impact in the coastal fringe, Leiston Beck, Friston Watercourse and groundwater.
Cumulative Construction Impact 2: Increased Sediment Supply	• Minor adverse in the Hundred River, Leiston Beck and Friston Watercourse • No impact in the coastal fringe and the groundwater	• Minor adverse in the Hundred River, Leiston Beck and Friston Watercourse • No impact in the coastal fringe and the groundwater
Cumulative Construction Impact 3: Accidental Release of Contaminants	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater. • No impact in the coastal fringe	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater. • No impact in the coastal fringe
Cumulative Construction Impact 4: Changes to surface water	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater • No impact in the coastal fringe	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater • No impact in the coastal fringe

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
20.7.1 Cumulative Operational Impacts with the Proposed East Anglia ONE North / TWO Project		
Cumulative Operational Impact 1: Changes to Surface Water Runoff, Ground Water Flows and Flood Risk	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater • No impact in the coastal fringe	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater • No impact in the coastal fringe
Cumulative Operational Impact 2: Supply of Fine Sediment and Other Contaminants	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater • No impact in the coastal fringe	• Minor adverse in the Hundred River, Leiston Beck, Friston Watercourse and groundwater • No impact in the coastal fringe
20.7.2 Cumulative Impact Assessment with Other Developments		
Cumulative Impact 1: Direct Disturbance of Surface Water Bodies	Minor adverse	Minor adverse
Cumulative Impact 2: Increased Sediment Supply	Minor adverse	Minor adverse
Cumulative Impact 3: Accidental Release of Contaminants	Minor adverse	Minor adverse
20.7.2.1.4 Cumulative Impact 4: Changes to Surface Water Runoff and Flood Risk	Minor adverse	Minor adverse
20.7.2.2.1 Cumulative Impact 5: Changes to Surface Water Runoff, Groundwater Flows and Flood Risk	Minor adverse	Minor adverse
20.7.2.3 Cumulative Impacts during Decommissioning	No difference	
20.8 Inter-relationships		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
No difference		
20.9 Interactions		
No difference		
20.10 Summary		
No difference		
20.11 References		
No difference		

4.4 Chapter 21 Land Use

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
21.1 Introduction		
No difference		
21.2 Consultation		
No difference		
21.3 Scope		
No difference		
21.4 Assessment Methodology		
21.4.1 Guidance	No difference	
21.4.2 Data Sources	No difference	
21.4.3 Impact Assessment Methodology	No difference	
21.4.4 Cumulative Impact Assessment	• Paragraph 51 notes that the **proposed East Anglia TWO project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **proposed East Anglia TWO project** against two different construction scenarios.	• Paragraph 51 notes that the **proposed East Anglia ONE North project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **proposed East Anglia TWO project** against two different construction scenarios.
21.4.5 Transboundary Impact Assessment	No difference	
21.5 Existing Environment		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
21.6 Potential Impacts (Residual Impacts)		
21.6.1 Potential Impacts during Construction		
Impact 1: Land Taken out of Existing Use	• Landfall and onshore cable corridor – minor adverse. • Substation – assessed as operational impact.	• Landfall and onshore cable corridor – minor adverse. • Substation – assessed as operational impact.
Impact 2: Impacts to ESS	• Landfall and onshore cable corridor – negligible. • Substation – no ESS, so no impact.	• Landfall and onshore cable corridor – negligible. • Substation – no ESS, so no impact.
Impact 3: Impacts to Land Drainage	• Landfall, onshore cable corridor and substation – minor adverse.	• Landfall, onshore cable corridor and substation – minor adverse.
Impact 4: Degradation to Natural Resource	• Landfall, onshore cable corridor and substation – minor adverse.	• Landfall, onshore cable corridor and substation – minor adverse.
Impact 5: Utilities	• Landfall, onshore cable corridor and substation – no impact.	• Landfall, onshore cable corridor and substation – no impact.
Impact 6: Impacts to Common Land	• Landfall and onshore cable corridor – minor adverse. • Substation – no ESS, so no impact.	• Landfall and onshore cable corridor – minor adverse. • Substation – no ESS, so no impact.
21.6.2 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Permanent Change to Land Use	• Landfall and onshore cable corridor – negligible. • Substation – no ESS, so minor adverse.	• Landfall and onshore cable corridor – negligible. • Substation – no ESS, so minor adverse.
Impact 2: Impacts to ESS	• Landfall and onshore cable corridor – minor adverse. • Substation – no ESS, so no impact.	• Landfall and onshore cable corridor – minor adverse. • Substation – no ESS, so no impact.
Impact 3: Alterations to Land Drainage	• Landfall, onshore cable corridor and substation – no impact.	• Landfall, onshore cable corridor and substation – no impact.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 4: Utilities	• Landfall, onshore cable corridor and substation – no impact.	• Landfall, onshore cable corridor and substation – no impact.
Impact 5: Impacts to Common Access Land	• Landfall and Onshore Cable Corridor – negligible. • Substation – no areas of common land, so no impacts.	• Landfall and Onshore Cable Corridor – negligible. • Substation – no areas of common land, so no impacts.
Impact 6: EMFs	• Discussed and assessed in *Chapter 27 Human Health*.	
21.6.3 Potential Impacts during Decommissioning		
No difference		
21.7 Cumulative Impacts (Residual Impacts)		
21.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Impact 1: Land taken out of Existing Use	• Landfall: moderate adverse • Onshore cable corridor: moderate adverse	• Landfall: moderate adverse • Onshore cable corridor: moderate adverse
Impact 2: Impact to ESS	• Landfall and onshore cable corridor: moderate adverse	• Landfall and onshore cable corridor: moderate adverse
Impact 3: Impact to Land Drainage	• Landfall, onshore cable corridor, onshore substation and national grid substation locations: moderate adverse	• Landfall, onshore cable corridor, onshore substation and national grid substation locations: moderate adverse
Impact 4: Degradation to Natural Resource	• Landfall, Onshore cable corridor, onshore substation and National Grid substation locations: minor adverse	• Landfall, Onshore cable corridor, onshore substation and National Grid substation locations: minor adverse
Impact 5: Impact to Utilities	• Landfall, Onshore cable Corridor, onshore substation and National Grid substation locations: no impact	• Landfall, Onshore cable Corridor, onshore substation and National Grid substation locations: no impact

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 6: Impact to Common Land	• Landfall and onshore cable corridor: minor adverse • Onshore substation and National Grid substation locations: no impact	• Landfall and onshore cable corridor: minor adverse • Onshore substation and National Grid substation locations: no impact
21.7.2 Cumulative Impact Assessment with Other Developments		
Impacts will not differ from those associated with the project alone.		
21.8 Inter-relationships		
No difference		
21.9 Interactions		
No difference		
21.10 Summary		
No difference		
21.11 References		
No difference		

4.5 Chapter 22 Onshore Ecology

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
22.1 Introduction		
No difference		
22.2 Consultation		
No difference		
22.3 Scope		
No difference		
22.4 Assessment Methodology		
22.4.1 Guidance	No difference	
22.4.2 Data Sources	No difference	
22.4.3 Impact Assessment Methodology	No difference	
22.4.4 Cumulative Impact Assessment	• The **proposed East Anglia TWO project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **proposed East Anglia ONE North project** against two different construction scenarios.	• The **proposed East Anglia ONE North project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **proposed East Anglia TWO project** against two different construction scenarios.
22.4.5 Transboundary Impact Assessment	No difference	
22.5 Existing Environment		
No difference		
22.6 Potential Impacts (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
22.6.1 Potential Impacts During Construction		
Impact 1: Impacts to Designated Sites	Minor adverse	Minor adverse
Impact 2: Impacts to Arable Habitats	Negligible	Negligible
Impact 3: Impacts to Grassland Habitats	Negligible	Negligible

Impact 4: Impacts to Woodland and Trees	• Paragraph 167 states that there are **two locations** where woodland losses will be unavoidable:
	  • **Cable corridor crossing Aldeburgh Road (approximately 0.9ha); and**
	  • **Onshore substation option in proximity to Laurel Covert (approximately 0.1ha)**
	• **Table 22.19 lists 1ha** of approximate total area potentially affected.
	• Paragraph 168 states there is the potential to lose up to 1ha of semi-natural broad-leaved woodland during the construction phase.
	• Impact following mitigation – minor adverse
		• Paragraph 167 states there is **one location** where woodland losses will be unavoidable. This is at the onshore cable crossing at **Aldeburgh Road (approximately 0.9ha).**
		• **Table 22.19 lists 0.9ha** of approximate total area potentially affected.
		• Paragraph 168 states there is the potential to lose up to **0.9ha** of semi-natural broad-leaved woodland during the construction phase.
		• Impact following mitigation – minor adverse

Impact 5: Hedgerows	Minor adverse	Minor adverse
Impact 6: Coastal Habitats	No change	No change
Impact 7: Watercourses and Ponds	Minor adverse	Minor adverse
Impact 8: Badgers	Minor adverse	Minor adverse
Impact 9: Bats	Moderate adverse	Moderate adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Impact 10: Great Crested Newts	Minor adverse	Minor adverse
Impact 11: Reptiles	Minor adverse	Minor adverse
Invasive Non-Native Species	Minor adverse	Minor adverse
22.6.2 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Disturbance Effects Associated with Maintenance Activities	Minor adverse	Minor adverse
Impact 2: Disturbance to Fauna from Operational Lighting and Noise	Minor adverse	Minor adverse
22.6.3 Potential Impacts during Decommissioning		
No difference		
22.7 Cumulative Impacts (Residual Impacts)		
22.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Cumulative Impact 1: Impacts to Designated Sites	Minor adverse	Minor adverse
Cumulative Impact 2: Impacts to Arable Habitat	Negligible	Negligible
Cumulative Impact 3: Impacts to Grassland Habitat	Negligible	Negligible
Cumulative Impact 4: Impacts to Woodland and Trees	Minor adverse	Minor adverse
Cumulative Impact 5: Hedgerows	Minor adverse	Minor adverse

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Cumulative Impact 6: Coastal Habitats	No impact	No impact
Cumulative Impact 7: Watercourses and Ponds	Minor adverse	Minor adverse
Cumulative Impact 8: Badgers	Minor adverse	Minor adverse
Cumulative Impact 9: Bats	Moderate adverse	Moderate adverse
Cumulative Impact 10: Great Crested Newts	Minor adverse	Minor adverse
Cumulative Impact 11: Reptiles	Minor adverse	Minor adverse
Cumulative Impact 12: Invasive Non-Native Species	Minor adverse	Minor adverse
22.7.1 Cumulative Operational Impacts with the proposed East Anglia ONE North/TWO project		
Impact 1: Disturbance effects associated Maintenance Activities	Minor adverse	Minor adverse
Impact 2: Disturbance to Fauna from Operational Lighting and Noise	Minor adverse	Minor adverse
22.7.2 Cumulative Impact Assessment with Other Developments		
No difference		
22.8 Inter-relationships		
No difference		
22.9 Interactions		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
22.10 Summary		
No difference		
22.11 References		
No difference		

4.6 Chapter 23 Onshore Ornithology

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
23.1 Introduction		
No difference		
23.2 Consultation		
No difference		
23.3 Scope		
No difference		
23.4 Assessment Methodology		
23.4.1 Guidance	No difference	
23.4.2 Data Sources	No difference	
23.4.3 Impact Assessment Methodology	No difference	
23.4.4 Cumulative Impact Assessment	• Paragraph 58 states that the **proposed East Anglia TWO project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with **only the East Anglia ONE North project** against two different construction scenarios.	• Paragraph 58 states that the **proposed East Anglia ONE North project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with **only the East Anglia TWO project** against two different construction scenarios.
23.4.5 Assessment of Likely Significant Effects on a Natura 2000 Site	No difference	
23.4.6 Transboundary Impact Assessment	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
23.5 Existing Environment		
No difference		
23.6 Potential Impacts (Residual Impacts)		
23.6.1 Scoped-in Important Ornithological Features	No difference	
23.6.2 Scoped-out Ornithological Receptors	No difference	
23.6.3.1 Potential Impacts During Construction - Impact 1: Habitat Loss		
23.6.3.1.1 Nightjar	Minor adverse	Minor adverse
23.6.3.1.2 Woodlark	Minor adverse	Minor adverse
23.6.3.1.3 Turtle Dove	Minor adverse	Minor adverse
23.6.3.1.4 Nightingale	Minor adverse	Minor adverse
23.6.3.1.5 Marsh Harrier	Minor adverse	Minor adverse
23.6.3.1.6 Barn Owl	Negligible	Negligible
23.6.3.1.7 Cetti's Warbler	Minor adverse	Minor adverse
23.6.3.1.8 Dartford Warbler	Minor adverse	Minor adverse
23.6.3.1.9 Marsh Warbler	Minor adverse	Minor adverse
23.6.3.1.10 Yellow Wagtail	Minor adverse	Minor adverse
23.6.3.2 Potential Impacts During Construction - Impact 2: Construction Disturbance		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
23.6.3.2.1 Nightjar	Minor adverse	Minor adverse
23.6.3.2.2 Woodlark	Minor adverse	Minor adverse
23.6.3.2.3 Turtle Dove	Minor adverse	Minor adverse
23.6.3.2.4 Nightingale	Minor adverse	Minor adverse
23.6.3.2.5 Marsh Harrier	Negligible	Negligible
23.6.3.2.6 Barn Owl	Negligible	Negligible
23.6.3.2.7 Cetti's Warbler	Negligible	Negligible
23.6.3.2.8 Dartford Warbler	Minor adverse	Minor adverse
23.6.3.2.9 Marsh Warbler	Minor adverse	Minor adverse
23.6.3.2.10 Yellow Wagtail	Minor adverse	Minor adverse
23.6.2 Potential Impacts during Operation (Residual Impact)		
Impact 1: Disturbance from Maintenance Activities	Minor adverse	Minor adverse
Impact 2: Disturbance to Fauna from Operational Lighting and Noise	Minor adverse	Minor adverse
23.6.3 Potential Impacts during Decommissioning		
No difference		
23.7 Cumulative Impacts (Residual Impact)		
23.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Cumulative Impact 1: Habitat Loss (All IOFs)	Minor adverse, not significant	Minor adverse, not significant
Cumulative Impact 2: Disturbance (All IOFs)	Minor adverse, not significant	Minor adverse, not significant
23.7.2 Cumulative Impact Assessment with Other Developments		
Cumulative Impact 1: Habitat Loss (All IOFs)	No additional cumulative effects than project alone1	No additional cumulative effects than project alone
Cumulative Impact 2: Disturbance (All IOFs)	No additional cumulative effects than project alone	No additional cumulative effects than project alone
23.8 Inter-relationships		
No difference		
23.9 Interactions		
No difference		
23.10 Summary		
No difference		
23.11 References		
No difference		

4.7 Chapter 24 Archaeology and Cultural Heritage

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
24.1 Introduction		
No difference		
24.2 Consultation		
No difference		
24.3 Scope		
No difference		
24.4 Assessment Methodology		
24.4.1 Guidance	No difference	
24.4.2 Data Sources	No difference	
24.4.3 Impact Assessment Methodology	No difference	
24.4.4 Historic Landscape Character	No difference	
24.4.5 Cumulative Impact Assessment	• Paragraph 90 notes that the proposed **East Anglia TWO project Cumulative Impact Assessment** will initially consider the cumulative impact with only the **East Anglia ONE North project**.	• Paragraph 90 notes that the proposed **East Anglia ONE North project Cumulative Impact Assessment** will initially consider the cumulative impact with only the **East Anglia TWO project**.
24.5 Existing Environment		
No difference		
24.6 Potential Impacts (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
24.6.1 Potential Impacts during Construction		
Impact 1: Direct Impact on (Permanent Change to) Buried Archaeological Remains	No worse than minor adverse	No worse than minor adverse
Impact 2: Direct Impact on (Permanent Change to) Above Ground Archaeological Remains and Heritage Assets e.g. Historic Earthworks (Including Historic Landscape Character); and Built Heritage (Buildings, Structures etc.)	No worse than minor adverse	No worse than minor adverse
Impact 3: Indirect (non-Physical) Impact on the Setting of Heritage Assets (Both Designated and Non-Designated)	No impact	No impact
Impact 4: Impact on Potential Geoarchaeological / Palaeoenvironmental Remains, Potentially Indicative of Former Land Surfaces	No worse than minor adverse	No worse than minor adverse
Impact 5: Impact to Site Preservation Conditions from Drilling Fluid Breakout or Oil Spills	Minor adverse	Minor adverse
24.6.2 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Indirect (Non-Physical) Impact on the Setting of Heritage Assets (both Designated and Non-Designated)	Paragraph 230 states that assessment of impact requires the completion and reporting on of the settings assessment (to be made available on submission of the DCO applications), so application of mitigation measures cannot feed into impact assessment.	
Impact 2: Impacts to Archaeological Site Preservation Conditions, Where Present, from Heat Loss from Installed Cables	No impact	No impact

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
24.6.3 Potential Impacts during Decommissioning		
No difference		
24.7 Cumulative Impacts (Residual Impacts)		
24.7.1 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Cumulative Impact 1: Direct Impact on (Permanent Change to) Buried Archaeological Remains	Minor adverse	Minor adverse
Cumulative Impact 2: Direct Impact on (permanent change to) Above Ground Archaeological Remains and Heritage Assets	Minor adverse	Minor adverse
Cumulative Impact 3: Indirect (non-physical) Impact on the Setting of Heritage Assets (both Designated and Non-Designated)	No impact	No impact
Cumulative Impact 4: Impact on potential Geoarchaeological / Palaeoenvironmental remains, potentially indicative of former land surfaces	Minor adverse	Minor adverse
Cumulative Impact 5: Impact to site preservation conditions from drilling fluid breakout or oil spills	Minor adverse	Minor adverse
24.7.2 Cumulative Impact Assessment with Other Developments		
24.7.2.1 Cumulative Impacts during Construction	No impact	No impact
24.7.2.2 Cumulative Impacts during Operation	No impact	No impact

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
24.7.2.3 Cumulative Impacts during Decommissioning		
No difference		
24.8 Inter-relationships		
No difference		
24.9 Interactions		
No difference		
24.10 Summary		
No difference		
24.11 References		
No difference		

4.8 Chapter 25 Noise and Vibration

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
25.1 Introduction		
No difference		
25.2 Consultation		
No difference		
25.3 Scope		
No difference		
25.4 Assessment Methodology		
25.4.1 Guidance	No difference	
25.4.2 Data Sources	No difference	
25.4.3 Impact Assessment Methodology	No difference	
25.4.4 Cumulative Impact Assessment	• Paragraph 109 states that the **proposed East Anglia TWO project** Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **East Anglia ONE North project.**	• Paragraph 109 states that the **proposed East Anglia ONE North project** CIA will initially consider the cumulative impact with only the **East Anglia TWO project.**
25.4.5Transboundary Impact Assessment	No difference	
25.5 Existing Environment		
No difference		
25.6 Potential Impacts (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
25.6.1 Potential Impacts during Construction		
Impact 1: Increased Noise on Residential Receptors Along the Indicative Onshore Development Area	• *Table 25.30* shows values that differ between the projects for the Predicted Receptor Noise level Range dBA. The impact significance is **negligible** in both. • *Table 25.31* shows values for the Predicted Receptor Noise Level Range dBA. The Impact Magnitude Range is No Impact for all receptors except SSR2 for which it is **No Impact to Low.** Significance Range is negligibl**e** for all receptors except SSR2 for which it is Negligible to Minor. • Paragraph 143 notes that impacts would be of **minor** significance at **SSR2**, and of negligible significance at all other receptors. Therefore additional mitigation is required at receptor **SSR2**.	• *Table 25.30* shows values that differ between the projects for the Predicted Receptor Noise level Range dBA. The impact significance is **negligible** in both. • *Table 25.31* shows values for the Predicted Receptor Noise Level Range dBA. The Impact Magnitude Range is No Impact for all receptors except SSR5 for which it is **No Impact to Negligible.** Significance Range is negligible for all receptors except SSR5 for which it is Negligible to Minor. • Paragraph 143 notes that impacts would be of **minor** significance at **SSR5**, and of negligible significance at all other receptors. Therefore additional mitigation is required at receptor **SSR5.**
Enhanced Mitigation	• No difference	
Impact 2: Increased Noise on Residential Receptors from Off-Site Construction Traffic Noise	Minor adverse	Minor adverse
Impact 3: Construction Vibration	Minor adverse	Minor adverse
25.6.2 Potential Impacts during Operation (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Operation Impact 1: Increased Noise on Residential Receptors from the Onshore Substation	• ***Table 25.36*** shows different values for Predicted Rating Noise Level Night Time, and Difference (dBA). The BS4142 Impact Magnitude is No impact for all receptors, except for **SSR2** for which it is **moderate** and **SSR5** for which it is **negligible**. The Impact Significance Without Additional Mitigation is **negligible** for all receptors, except for **SSR2** for which is it **moderate** and **SSR5** for which it is **minor.** All receptors have a 35dBA criteria impact magnitude of no impact and a 35dBA criteria impact significance without additional mitigation of negligible**.** • Paragraph 164 notes that receptors **SSR2** and **SSR5** have a **moderate adverse** and **minor adverse** significance predicted respectively using the BS4142 criteria. • Due to limiting operational noise from the onshore substation to no greater than 35dB during the night, results show that noise levels would have an impact magnitude of no impact at all receptors and therefore negligible significance.	• ***Table 25.36*** shows different values for Predicted Rating Noise Level Night Time, and Difference (dBA). The BS4142 Impact Magnitude is No impact for all receptors, except for **SSR2** for which it is **negligible** and **SSR5** for which it is **moderate**. The Impact Significance Without Additional Mitigation is **negligible** for all receptors, except for **SSR2** for which is it **minor** and **SSR5** for which it is **moderate.** All receptors have a 35dBA criteria impact magnitude of no impact and a 35dBA criteria impact significance without additional mitigation of negligible**.** • Paragraph 164 notes that receptors **SSR2** and **SSR5** have a m**inor adverse** and **moderate adverse** significance predicted respectively using the BS4142 criteria. • Due to limiting operational noise from the onshore substation to no greater than 35dB during the night, results show that noise levels would have an impact magnitude of no impact at all receptors and therefore negligible significance.
25.6.3 Potential Impacts during Decommissioning		
No difference		
25.7 Cumulative Impacts (Residual Impacts)		
25.7.1 Cumulative Construction Impact with the proposed East Anglia ONE North / East Anglia TWO Project		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Cumulative Impact 1: Increased noise on residential receptors along the Proposed onshore development Area	No Impact to Negligible Impact.	No Impact to Negligible Impact.
Cumulative Impact 2: Increased noise on residential receptors from off-site construction traffic noise	Minor adverse	Minor adverse
Cumulative Impact 3: Vibration disturbance along the Proposed onshore development Area	Minor adverse	Minor adverse
25.7.1 Cumulative Operation Impact with the Proposed East Anglia ONE North/ East Anglia TWO Project		
Impact 1: Increased operational noise on residential from the substations	Negligible	Negligible
25.7.2 Cumulative Impact Assessment with other Developments		
Cumulative Impact during Construction	Anticipated that any cumulative effects associated with construction phase will **not be significant**.	
Cumulative Impact during Operation	No impact	
25.8 Inter-relationships		
No difference		
25.9 Interactions		
No difference		
25.10 Summary		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
25.11 References		
No difference		

4.9 Chapter 26 Traffic and Transport

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
26.1 Introduction		
No difference		
26.2 Consultation		
No difference		
26.3 Scope		
No difference		
26.4 Assessment Methodology		
26.4.1Guidance and Policy	No difference	
26.4.2 Data Sources	No difference	
26.4.3 Impact Assessment Methodology	No difference	
26.4.4 Cumulative Impact Assessment	• Paragraph 83 states that the **proposed East Anglia TWO project** CIA initially considers the cumulative impact with only the **East Anglia ONE North project** against two different construction scenarios.	• Paragraph 83 states that the **proposed East Anglia ONE North project** CIA initially considers the cumulative impact with only the **East Anglia TWO project** against two different construction scenarios.
26.4.5 Transboundary Impact Assessment	No difference	
26.5 Existing Environment		
No difference		
26.6 Potential Impacts (Residual Impacts)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
26.6.1 Potential Impacts during Construction		
Impact 1: Severance	Maximum impact of negligible to minor adverse	Maximum impact of negligible to minor adverse
Impact 2: Pedestrian Amenity	Minor adverse	Minor adverse
Impact 3: Road Safety	Minor adverse	Minor adverse
Impact 4: Driver Delay (Capacity)	Minor adverse	Minor adverse
Impact 5: Driver Delay (Highway Geometry)	Minor adverse	Minor adverse
26.6.2 Potential Impacts during Operation (Residual Impacts)		
No significant traffic impacts		
26.6.3 Potential Impacts during Decommissioning		
No difference		
26.7 Cumulative Impacts (Residual Impacts)		
26.7.1Cumulative Impacts with the proposed East Anglia ONE North / East Anglia TWO Project		
Cumulative Impact 1: Severance	• Links 1, 2, 3, 4, 6, 8, 9, 10, 11 and 12: minor-negligible	• Links 1, 2, 3, 4, 6, 8, 9, 10, 11 and 12: minor-negligible
Cumulative Impact 2: Pedestrian Amenity	• Links: 1,2, 3, 4, 6, 8, 10, and 11: minor-negligible • Link 9 and 12: minor	• Links: 1,2, 3, 4, 6, 8, 10, and 11: minor-negligible • Link 9 and 12: minor
Cumulative Impact 3: Highway Safety	• Cluster 1 (link2): minor • Cluster 3 (links 2,3 and 6): minor • B1121 (links 5 and 7): minor	• Cluster 1 (link2): minor • Cluster 3 (links 2,3 and 6): minor • B1121 (links 5 and 7): minor

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• A1094 (links 6 and 8): minor	• A1094 (links 6 and 8): minor
Cumulative Impact 4: Driver Delay (capacity)	• Junctions: 1, 2, 3, 4 and 5: minor • Open trench road crossing: minor • B1353, B1122, B1069, Grove Road: minor • B1353 Convoy system: minor	• Junctions: 1, 2, 3, 4 and 5: minor • Open trench road crossing: minor • B1353, B1122, B1069, Grove Road: minor • B1353 Convoy system: minor
Cumulative Impact 5: Driver Delay (highway geometry)	• The priority junction of the A1094 and B1069: negligible • The roundabout junction of the A1094 and B1122 at Aldeburgh: minor	• The priority junction of the A1094 and B1069: negligible • The roundabout junction of the A1094 and B1122 at Aldeburgh: minor
26.7.2 Cumulative Impact Assessment with Other Developments		
No difference		
26.8 Inter-relationships		
No difference		
26.9 Interactions		
No difference		
26.10 Summary		
No difference		
26.11 References		
No difference		

4.10 Chapter 27 Human Health

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
27.1 Introduction		
No difference		
27.2 Consultation		
No difference		
27.3 Scope		
No difference		
27.4 Assessment Methodology		
No difference		
27.5 Existing Environment		
No difference		
27.6 Potential Impacts (Residual Impacts)		
27.6.1 Potential Impacts during Construction		
Impact 1: Noise Effects	Not significant	Not significant
Impact 2: Air Quality Effects	Not significant	Not significant
Impact 3: Ground or Water Contamination Effects	Not significant	Not significant
Impact 4: Physical Activity Effects	Not significant	Not significant
Impact 5: Effect of Reduced Access to Health Services	Not significant	Not significant

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
27.6.2 Potential Impacts during Construction and Operation		
Impact 1: Employment	Not significant	Not significant
Impact 2: Perception of Risk	Not significant	Not significant
27.6.3 Potential Impacts during Operation (Residual Impacts)		
Impact 1: Noise Effects	Not significant	Not significant
Impact 2: EMF Effects	Not significant	Not significant
27.6.4 Potential Impacts during Decommissioning		
No difference		
27.7 Cumulative Impacts (Residual Impacts)		
27.7.2 Intra-project Cumulative Effects	All residual impacts not significant	All residual impacts not significant
27.7.3 Inter-project Cumulative Effects	No difference	
27.10 Summary		
No difference		
27.11 References		
No difference		

5 Wider Scheme Chapters

5.1 Chapter 28 Offshore Seascape, Landscape and Visual Amenity

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
28.1 Introduction		
No difference		
28.2 Consultation		
No difference		
28.3 Scope		
28.3.1 Study Area	• Paragraph 13 notes that the realistic worst case layout assessed as the project design envelope for the SLVIA is the **60 x 300m layout** with 300m blade tip height wind turbines.	• Paragraph 13 notes that the realistic worst case layout assessed as the project design envelope for the SLVIA is the **53 x 300m layout** with 300m blade tip height wind turbines.
28.3.2 Worst Case Scenario	• **Table 28.3** States that the wind turbines considered in the SLVIA Rochdale Envelope are a maximum number of turbines of **75 250m turbines or 60 300m turbines.** • Paragraph 25 notes: the realistic worst case layout assessed as the project design envelope for the SLVIA is the **60 x 300m** wind turbine layout. • Paragraph 25 also notes: an alternative project design envelope for the SLVIA is the **75 x 250m wind turbine** (250m blade tip) layout.	• **Table 28.3** States that the wind turbines considered in the SLVIA Rochdale Envelope are a maximum number of turbines **of 67 250m turbines or 53 300m turbines.** • Paragraph 25 notes: the realistic worst case layout assessed as the project design envelope for the SLVIA is the **53 x 300m** wind turbine layout. • Paragraph 25 also notes: an alternative project design envelope for the SLVIA is the **67 x 250m wind turbine layout.**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
28.3.3 Embedded Mitigation	No difference	
28.3.4 Monitoring	No difference	
28.4 Assessment Methodology		
28.4.1 Guidance	No difference	
28.4.2 Data Sources	No difference	
28.4.3 Impact Assessment Methodology	No difference	
28.4.4 Cumulative Impact Assessment	No difference	
28.4.5 Transboundary Impact Assessment	No difference.	
28.4.6 Visual Representations	No difference	
28.5 Existing Environment		
28.5.1 Seascape Character	• Paragraph 100 notes that the **East Anglia TWO** windfarm site is also **located 12.4km** from the Coastal Waters SCT (05).	• Paragraph 100 notes that the **East Anglia ONE North** windfarm site is also **located 17.5km** from the Coastal Waters SCT (05)
28.5.2 Landscape Character	• Paragraph 114 states: the nationally important Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB), is located approximately **29.7km from the East Anglia TWO windfarm site**. The Suffolk Heritage Coast is largely contained within the AONB and is located **28.6km from the East Anglia TWO windfarm site.** • Paragraph 121 states: the Suffolk Heritage Coast is located within the SLVIA study area,	• Paragraph 114 states: the nationally important Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB), is located approximately **37.7km from the East Anglia ONE North windfarm site**. The Suffolk Heritage Coast is largely contained within the AONB and is located **36.1km from the East Anglia ONE North windfarm site.** • Paragraph 121 states: The Suffolk Heritage Coast is located within the SLVIA study area,

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	approximately 28.2km from the East Anglia TWO windfarm site at its closest point. • Paragraph 122 states that the Norfolk and Suffolk Broads is located approximately **34.2km** from the **East Anglia TWO windfarm site** at its closest point. • Paragraph 124 notes that the closest Registered Parks and Gardens to the **East Anglia TWO wind farm site** is Belle Vie Park in Lowestoft and is **32.4km** away.	approximately **36.1km from the East Anglia ONE North windfarm site** at its closest point. • Paragraph 122 states that the Norfolk and Suffolk Broads is located approximately **39.3km** from the **East Anglia ONE North** windfarm site at its closest point. • Paragraph 124 notes that the closest Registered Parks and Gardens to the **East Anglia ONE North wind farm site** is Belle Vie Park in Lowestoft and is **36.6km** away.
28.5.3Views/Visual Amenity	• **Table 28.7** lists the viewpoints included in the SLVIA and the distances from the windfarm site. • These **differ between projects as East ONE North is for the most part further away from the shore than East Anglia TWO.** • East Anglia TWO includes the extra Illustrative viewpoints: **E- Landguard Fort and F – Bawdsey Manor (Pulmahite Cliffs).**	• **Table 28.7** lists the viewpoints included in the SLVIA and the distances from the windfarm site. These differ between projects as East ONE North is for the most part further away from the shore than East Anglia TWO.
28.5.4 Anticipated Trends in Baseline Condition	No difference	
28.6 Potential Seascape Impacts during Construction, Operation and Decommissioning (Residual Impacts)		
28.6.1 Preliminary Assessment	No difference	
28.6.2 Technical Assessment	No difference	
28.6.3 Summary Assessment	• **Table 28.8** summarises the effects on the Seascape Character Types. These are different between East Anglia TWO and East Anglia ONE North due to the different locations	• **Table 28.8** summarises the effects on the Seascape Character Types. These are different between East Anglia TWO and East Anglia ONE North due to the different locations

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	of the wind farms. Please refer to the specific chapters.	of the wind farms. Please refer to the specific chapters.
28.7 Potential Landscape Impacts during Construction, Operation and Decommissioning (Residual Impacts)		
28.7.1 Preliminary Assessment	• Paragraph 157: the preliminary assessment has identified that parts of **four LCTs and two landscape designations** require to be assessed further in the technical assessment, as a result of the potential for significant seascape effects arising from the construction and operation of the offshore infrastructure: • Coastal Dunes and Shingle Ridges LCT – North of Southwold (05); • Coastal Levels LCT – North of Southwold (06); • Estate Sandlands LCT – North of Southwold (07); • Open Coastal Fens LCT (08); • Suffolk Coast and Heaths AONB; and • Suffolk Heritage Coast.	• Paragraph 157: the preliminary assessment has identified that parts of **three LCTs and two landscape designations** require to be assessed further in the technical assessment, as a result of the potential for significant seascape effects arising from the construction and operation of the offshore infrastructure: • Coastal Dunes and Shingle Ridges LCT – North of Southwold (05); • Coastal Levels LCT – North of Southwold (06); • Estate Sandlands LCT – North of Southwold (07); • Suffolk Coast and Heaths AONB; and • Suffolk Heritage Coast.
28.7.2 Technical Assessment	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
28.7.3 Summary Assessment	• Table 28.9 summarises the effects on Landscape Character Types. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters • Table 28.10 summaries the effects on Suffolk Coast and Heaths AONB which differs between the two projects. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters	• Table 28.9 summarises the effects on Landscape Character Types. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters • Table 28.10 summaries the effects on Suffolk Coast and Heaths AONB which differs between the two projects. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters
28.8 Potential Visual Impacts during Construction, Operation and Decommissioning (Residual Impacts)		
28.8.1 Preliminary Assessment	• Viewpoints considered in the assessment differ between the two projects. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters	• Viewpoints considered in the assessment differ between the two projects. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters
28.8.2 Technical Assessment	No difference	
28.8.3 Summary Assessment	• Table 28.11 Summarises the effects on viewpoints.	• Table 28.11 Summarises the effects on viewpoints.

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	• Table 28.12 summarises the effects on settlements. • Table 28.13 summarises the effects on the Suffolk Coastal Path. • There are differences between the two projects. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters	• Table 28.12 summarises the effects on settlements. • Table 28.13 summarises the effects on the Suffolk Coastal Path. • There are differences between the two projects. These are different between East Anglia TWO and East Anglia ONE North due to the different locations of the wind farms. Please refer to the specific chapters
28.9 Cumulative Impacts (Residual Impacts)		
28.9.1 Cumulative Seascape Effects	No difference	
28.9.2 Cumulative Landscape Effects	Table 28.15 summarises cumulative effects on Landscape character types. East Anglia TWO considers more areas.	Table 28.15 summarises cumulative effects on Landscape character types. East Anglia TWO considers more areas.
28.9.3 Cumulative Visual Effects	No change from project alone	
28.10 Transboundary Impacts (Residual Impacts)		
	• Paragraph 217: The East Anglia TWO windfarm site is **located approximately 95km from the coastline of the nearest EU member state** (Netherlands).	• Paragraph 217: The East Anglia ONE North windfarm site is located approximately **104km from the coastline of the nearest EU member state** (Netherlands).
28.11 Inter-relationships		
28.11.1 Inter-related Seascape Effects	No difference	
28.11.2 Inter-related Landscape Effects	• Paragraph 226: Inter-related effects are assessed as most likely to occur in a localised area of LCTs and the AONB within close	• Paragraph 225: Inter-related effects are assessed as most likely to occur in a localised area of LCTs and the AONB within close

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	proximity to landfall where character is assessed as likely to **experience significant inter-related effects** when the construction of the onshore and offshore infrastructure overlaps.	proximity to landfall where character is assessed as likely to **experience no significant inter-related effects** when the construction of the onshore and offshore infrastructure overlaps.
28.11.3 Interrelated Visual Effects	• Paragraph 231: The assessment identifies **likely significant** construction stage inter-related effects of the onshore infrastructure and offshore infrastructure on the visual amenity experienced by people within a localised geographic area.	• The assessment identifies **not significant** construction stage inter-related effects of the onshore infrastructure and offshore infrastructure on the visual amenity experienced by people within a localised geographic area
28.12 Interactions		
No difference		
28.13 Summary and Conclusions		
No difference		
28.14 References		
No difference		

5.2 Chapter 29 Landscape and Visual Impact

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
29.1 Introduction		
29.1.1 Impact Assessment Scenarios	No difference	
29.1.2 Matters Scoped out of the EIA	No difference	
29.2 Consultation		
No difference		
29.3 Scope		
29.3.1 Study Area	No difference	
29.3.2 Worst Case Scenarios	The location of the East Anglia TWO and East Anglia ONE North onshore substations are adjacent to each other with minimal difference in distance from key receptors. This gives rise to no difference in worst case scenarios carried through into the assessment	
29.3.3 Embedded Mitigation	No difference	
29.3.4 Landscape Mitigation	No difference	
29.3.5 Monitoring	No difference	
29.4 Assessment Methodology		
29.4.1 Guidance	No difference	
29.4.2 Data Sources	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
29.4.3 Impact Assessment Methodology	No difference	
29.4.4 Cumulative Impact Assessment	No difference	
29.4.5 Transboundary Impact Assessment	No difference.	
29.4.6 Visual Representations	No difference	
29.5 Existing Environment		
29.5.1 Landscape Elements	No difference	
29.5.2 Landscape Character	No difference	
29.5.3 Landscape Designations	No difference	
29.5.4 Visual Receptors and Views	No difference	
29.5.5 Anticipated Trends in Baseline Condition	No difference	
29.6 Potential Effects (Residual Impacts)		
29.6.1 Potential Effects during Construction		
Potential Effects during Construction - Landfall	No difference	
Potential Effects during Construction – Onshore Cable Route	No difference	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Potential Effects during Construction – Onshore Substation and National Grid Infrastructure	No difference	
29.6.2 Potential Effects during Operation (Residual Effects)		
Potential Effects during Operation – Onshore Cable Route	No difference	
Potential Effects during Operation – Onshore Substation and National Grid Infrastructure	No difference	
29.6.3 Potential Effects during Decommissioning		
No difference		
29.7 Cumulative Effects (Residual Effects)		
29.7.1.1 Cumulative Impacts with the Proposed East Anglia ONE North/TWO during Construction	No difference	
29.7.1.2 Cumulative Effects with East Anglia ONE North/TWO during Operation	No difference	
29.7.1.3 Cumulative Effects during Decommissioning with East Anglia ONE North/TWO	No difference	
29.7.2 Cumulative Effects with Other Developments (Residual Effects)		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
29.7.2.1.2 Cumulative Effects with Sizewell C during Construction	No difference	
29.7.2.1.3 Cumulative Effects with Sizewell C during Operation	No difference	
29.8 Inter-relationships		
No difference		
29.9 Interactions		
No difference		
29.10 Summary		
No difference		
29.10.1 Landscape and Visual Effects During Construction	No difference	
29.10.2 Landscape and Visual Effects During Operation	No difference	
29.10.3 Concluding Statements	No difference	
29.11 References		
No difference		

5.3 Chapter 30 Tourism, Recreation and Socio-Economics

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
30.1 Introduction		
No difference		
30.2 Consultation		
No difference		
30.3 Scope		
No difference		
30.4 Assessment Methodology		
30.4.1 Guidance	No difference	
30.4.2 Definitions	No difference	
30.4.3 Data Sources	No difference	
30.4.4 Impact Assessment Methodology	No difference	
30.4.5 Cumulative Impact Assessment	• Paragraph 95 notes that the **proposed East Anglia TWO** project Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **proposed East Anglia ONE North** project against two different construction scenarios.	• Paragraph 95 notes that the **proposed East Anglia ONE North** project Cumulative Impact Assessment (CIA) will initially consider the cumulative impact with only the **proposed East Anglia TWO** project against two different construction scenarios
30.4.6 Transboundary Impact Assessment	No difference	
30.5 Existing Environment		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
No difference		
30.6 Potential Impacts		
30.6.1 Potential Impacts during Construction		
Impact 1a: Onshore Construction Employment	Moderate beneficial	Moderate beneficial
Impact 1b: Offshore Construction Employment	Moderate beneficial	Moderate beneficial
Impact 2: Tourism Employment	Major beneficial	Major beneficial
Impact 3: Tourism and Recreation Disturbance	Negligible significance	Negligible significance
30.6.2 Potential Impacts during Operation		
Impact 1: Long Term Employment	Major beneficial significance regionally, moderate beneficial nationally.	Major beneficial significance regionally, moderate beneficial nationally.
Impact 2: Long Term Tourism	Negligible	Negligible
30.6.3 Potential Effects during Decommissioning		
No difference		
30.7 Cumulative Impact Assessment with the proposed East Anglia ONE North / East Anglia TWO Project		
Cumulative Construction Impact: 1a Onshore Construction Employment	Moderate beneficial	Moderate beneficial
Cumulative Construction Impact 1b: Offshore Construction Employment	Moderate beneficial	Moderate beneficial
Cumulative Construction Impact 2: Tourism Employment	Major beneficial	Major beneficial

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
Cumulative Construction Impact 3: Tourism and Recreation Disturbance	Negligible	Negligible
Cumulative Operation Impact 1: Long Term Employment	Major beneficial	Major beneficial
Cumulative Operation Impact 2: Long Term Tourism	Negligible	Negligible
30.7.1.3 Summary	No difference	
30.7.2 Cumulative Impact Assessment with Other Developments		
Cumulative Construction Impact 1a: Onshore Construction Employment	Major beneficial	Major beneficial
Cumulative Construction Impact 1b: Offshore Construction Employment	Major beneficial	Major beneficial
Cumulative Construction Impact 2: Tourism Employment	Major beneficial	Major beneficial
Cumulative Operation Impact 1: Long Term Employment	Major beneficial	Major beneficial
30.7.2.3 Cumulative Impacts during Decommissioning	No difference	
30.8 Inter-relationships		
No difference		
30.9 Interactions		
No difference		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
30.10 Summary		
No difference		
30.11 References		
No difference		

6 Habitats Regulations Assessment

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
1 Introduction		
No difference		
2 Overview of HRA Screening		
2.2.3 – Bullet list of designated sites for grey seal differs with East Anglia ONE North and East Anglia TWO both having the following sites: • Vlaamse Banken SAC in Belgium, located approximately 86km from the East Anglia ONE North windfarm site and 89km from the cable corridor • Voordelta SAC and SPA in the Netherlands, located approximately 93km from the East Anglia ONE North windfarm site and 107km from the cable corridor. While East Anglia TWO has the following additional sites: • SBZ 1 / ZPS 1 SPA in Belgium, located approximately 94km from the East Anglia TWO windfarm site and 107km from the cable corridor; • SBZ 2 / ZPS 2 SPA in Belgium, located approximately 84km from the East Anglia TWO windfarm site and 100km from the cable corridor; • SBZ 3 / ZPS 3 SPA in Belgium, located approximately 92km from the East Anglia TWO windfarm site and 108km from the cable corridor; • Vlakte van de Raan SCI in Belgium, located approximately 89km from the East Anglia TWO windfarm site and 107km from the cable corridor; • Bancs des Flandres SAC in France, located approximately 82km from the East Anglia TWO windfarm site and 93km from the cable corridor; and • Vlakte van de Raan SAC in the Netherlands, located approximately 82km from the East Anglia TWO windfarm site and 99km from the cable corridor.		
2.2.4 Paragraph 33 last sentence	These additional sites include: Vlaamse Banken SAC in Belgium located approximately 59km from the East Anglia TWO windfarm site and 72km from the cable corridor.	However, there were no additional sites within 80km to include in the assessment (see Appendix 1).
3 Onshore Ornithology Assessment of Effects		
No difference		
4 Offshore Ornithology Assessment of Effects		

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
4.1.1	Worst case scenario sections differ, see the HRAs or the offshore ornithology PEIR chapter for details.	
4.3	The East Anglia TWO windfarm site does not overlap with the Greater Wash SPA and is approximately **35km** away at its closest point.	The East Anglia ONE North windfarm site does not overlap with the Greater Wash SPA and is approximately **39km** away at its closest point.
	The little gull collision mortality for the proposed **East Anglia TWO** project was **0.5** birds per year	The little gull collision mortality for the proposed **East Anglia ONE North** project was a **median of 0 birds per year with the full stochastic model predicting limits of 0 to 5.1.**
4.4	The Alde-Ore Estuary SPA covers 2,417ha and is located on and around the Suffolk coast, being **37km** from the proposed East Anglia TWO windfarm site	The Alde-Ore Estuary SPA covers 2,417ha and is located on and around the Suffolk coast, being **54km** from the proposed East Anglia TWO windfarm site
4.4.1.3	**Table 4.3**	Table 4.3 in East Anglia TWO HRA not included within East Anglia ONE North project document
4.4.1.3	On the basis of the seasonal percentages of Alde-Ore SPA birds predicted to be on the East Anglia TWO windfarm site, the attributable mortality would be: • Autumn (August-October): 0 x 3.3% = 0 (range **0-0.11**) • Winter (November-February): 0 x 10% = 0 (range 0-0.02) • Spring (March-April): 0 x 3.3% = 0 (range **0-0.15**) • Migration-free breeding season (May-July): 0.48 x 25% = 0.12 (range **0-0.78**) • Total for Alde-Ore SPA = 0.12 (range **0-1.1**)	On the basis of the seasonal percentages of Alde-Ore SPA birds predicted to be on the East Anglia ONE North windfarm site, the attributable mortality would be: • Autumn (August-October): 0 x 3.3% = 0 (range **0-0.0**) • Winter (November-February): 0 x 10% = 0 (range 0-0.2) • Spring (March-April): 0 x 3.3% = 0 (range **0-0.05**) • Migration-free breeding season (May-July): 0.61 x 25% = 0.15 (range **0-0.848**) • Total for Alde-Ore SPA = 0.15 (range **0-1.09**)
4.4.1.5	The annual number of predicted lesser black-backed gull collisions at the East Anglia TWO windfarm site is very small (**0.5** per year), and of that the proportion which can be	The annual number of predicted lesser black-backed gull collisions at the East Anglia ONE North windfarm site is very small (**0.61** per year), and of that the proportion which can be

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	attributed to the Alde Ore SPA is so small (**0.12**) as to not materially alter the natural mortality rate for this population.	attributed to the Alde Ore SPA is so small (**0.15**) as to not materially alter the natural mortality rate for this population
4.5.1.2	Para 265: …Forth Islands SPA (Bass Rock, **524km**), Flamborough & Filey Coast SPA (Bempton, **247**km)	Para 264: …Forth Islands SPA (Bass Rock, **514km**), Flamborough & Filey Coast SPA (Bempton, **246km**)
4.5.1.3	Migration-free breeding season (April-August): 8.8 x 100% = 8.8 (range **2.15-35.8**). Autumn migration (September-November): 8.6 x 4.2% = 0.4 (range **0.04-2.4**). Spring migration (December-March): 1.1 x 5.6% = 0.06 (range **0-0.96**). Total = 9.2 (range **2.5-39.2**).	Migration-free breeding season (April-August): 8.8 x 100% = 8.8 (range **0.9-38.0**) Autumn migration (September-November): 5.5 x 4.2% = 0.23 (range **0.02-1.47**) Spring migration (December-March): 1.3 x 5.6% = 0.07 (range **0-0.67**) Total = 9.1 (range **0.92-40.14**)
4.5.1.4	Para 273: In autumn, the cumulative gannet collisions were estimated to be **621**	Para 272: In autumn, the cumulative gannet collisions were estimated to be **698**
4.5.2.3	Para 302: Collision mortality of kittiwakes at the East Anglia TWO windfarm site was estimated as **9.3** in spring, **13.6** in summer and **2.9** in autumn, giving an annual total of **25.8** birds	Para 301: Collision mortality of kittiwakes at the East Anglia ONE North windfarm site was estimated as **17.4** in spring, 6.0 in summer and **4.3** in autumn, giving an annual total of **27.7** birds
4.5.2.3	Migration-free breeding season (May-July): **13.6 x 16.8% = 2.3 (range 0.4-8.9)**. Autumn migration (August-December): **2.9 x 5.4% = 0.16 (range 0-0.8).** Spring migration (January-April) **9.3 x 7.2% = 0.7 (range 0.08-3.1).** Total = 3**.2 (range 0.5-12.8).**	Migration-free breeding season (May-July): **6.0 x 16.8% = 1.0 (range 0.11-10.2)** Autumn migration (August-December): **4.3 x 5.4% = 0.23 (range 0.01-1.88)** Spring migration (January-April) **17.4 x 7.2% = 1.25 (range 0.28-4.13)** Total = **2.48 (range 0.4-16.21)**
5 Marine Mammals Assessment of Effects		
5.1.1	The worst case parameters differ for the two projects see the HRA or marine mammals PEIR chapter for details.	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.2.4.1	The information included in this assessment is based on **21** months of survey for the proposed East Anglia TWO project (**November 2015 to April 2016, September 2016 to October 2017, and May 2018**). The complete 24 months of survey data (adding **June to** August 2018) will be included in the final HRA for submission with the Development Consent Order (DCO) application.	The information included in this assessment is based on **23** months of survey for the proposed East Anglia ONE North project (**September 2016 July 2018**). The complete 24 months of survey data (adding **August 2018**) will be included in the final HRA for submission with the Development Consent Order (DCO) application.
5.2.4.3 – Table 5.4 Density Estimate	**0.71/km^2** for the East Anglia TWO windfarm site	**0.573/km^2** for the East Anglia ONE North windfarm site
5.2.5.1.1.1 – Table 5.5 bottom two rows	**275** harbour porpoise (**0.08%** of NS MU) based on site specific survey density (**0.71**/km^2) at East Anglia TWO. **0.06-29** harbour porpoise (**0.00002-0.008%** of NS MU) based on site specific survey density (**0.71**/km^2) at East Anglia TWO	**222** harbour porpoise (**0.06%** of NS MU) based on site specific survey density (**0.573**/km^2) at East Anglia ONE North **0.05-23.5** harbour porpoise (**0.00001-0.007%** of NS MU) based on site specific survey density (**0.531**/km^2) at East Anglia ONE North
5.2.5.1.1.2 – Table 5.6	Potential overlap areas differ between the two projects. Refer to tables for details.	
5.2.5.1.1.2	Para 381: The assessment indicates, less than 10% (**approximately 7%**)…	Para 379: The assessment indicates, less than 10% (**up to 5.36%**)…
5.2.5.1.1.2	Para 382: The assessment indicates, less than 10% (approximately **3.5%**)	Para 380: The assessment indicates, less than 10% (approximately **2.68%**)
5.2.5.1.1.2 – Table 5.7	Refer to table	
5.2.5.1.1.2 – Table 5.8	Refer to table	
5.2.5.1.1.2 – Table 5.9	Refer to table	
5.2.5.1.1.2	Paragraph 392: Without any mitigation, the estimated maximum number of harbour porpoise that could potentially be at risk of PTS as a result of a single strike of the	Paragraph 390: Without any mitigation, the estimated maximum number of harbour porpoise that could potentially be at risk of PTS (SPL_{peak}) as a result of a single strike of the

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	maximum monopile hammer energy of 4,000kJ is **3.3** individuals (**0.00096%** of the North Sea MU reference population), based on the site specific density for East Anglia TWO (0.71 harbour porpoise per km^2).	maximum monopile hammer energy of 4,000kJ is **2.8** individuals (**0.0008%** of the North Sea MU reference population). As a result of the maximum pin-pile hammer energy of 2,400kJ, the estimated maximum number of harbour porpoise that could potentially be at potential risk of PTS from cumulative SEL is up to 607 harbour porpoise (up to 0.2% of the North Sea MU reference population
5.2.5.1.1.2	Paragraph 393: **The indicative maximum number of harbour porpoise that could potentially be at risk of PTS from cumulative SEL as a result of installation using the maximum monopile hammer energy of 4,000kJ, including the soft-start and ramp-up is up to 68.2 individuals (0.02%** of the North Sea MU reference population). As a result of the maximum pin-pile hammer energy of 2,400kJ, the estimated maximum number of harbour porpoise that could potentially be at risk of PTS from cumulative SEL is up to 689 harbour porpoise (up to 0.2% of the North Sea MU reference population), **based on the site specific density for East Anglia TWO**	No equivalent paragraph in East Anglia ONE North however the information is presented in Table 5.10 – refer to this for details.
5.2.5.1.2.2	Para 404: The number of harbour porpoise that could potentially be disturbed as a result of the proposed mitigation, for example the activation of ADDs for up to 10 minutes, would be up to **1.8** individuals (**0.00052%** of the NS MU reference population), based on the site specific density for East Anglia TWO (**0.71** harbour porpoise per km^2). The assessment indicates that up to 0**.00052%** of the NS MU reference population	Para 401: The number of harbour porpoise that could potentially be disturbed as a result of the proposed mitigation, for example the activation of ADDs for 10 minutes, would be up to 1.5 individuals (**0.00043%** of the NS MU reference population), based on the site specific density for East Anglia ONE North (**0.573** harbour porpoise per km^2). The assessment indicates that up to **0.00043%** of the NS MU reference population
5.2.5.1.2.3 – Table 5.11	Values in tables differ. Refer to documents for details.	
	Para 410: The maximum piling duration for the proposed East Anglia TWO project would be up to **938 hours (equivalent of up to 39.2 days**) based on the worst-case scenario. The potential ADD activation, based on up to 10	Para 407: The maximum piling duration for the proposed East Anglia ONE North project would be up to **844.8 hours (equivalent of up to 35.2 days**) based on the worst-case scenario. The potential ADD activation, based on 10 minutes

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	minutes per pile, would be up to **57.3 hours (up to 2.4 days) for 344** pin-piles.	per pile would be up to **52 hours (approximately 2.2 days) for 312** pin-piles.
5.2.5.1.2.3	Para 411: Therefore, the duration of potential disturbance, based on the worst-case scenario for the installation of wind turbines with pin-piles, five platforms with pin-piles and 10 minute ADD activation per pile, would be up to **41.6** days.	Para 408: Therefore, the duration of potential disturbance, based on the worst-case scenario for the installation of wind turbines with pin-piles, five platforms with pin-piles and 10 minute ADD activation per pile, would be up to **37.4** days.
5.2.5.1.2.3	Para 415: Based on maximum potential overlap with the SNS cSAC / SCI winter area (**16%**) it is estimated that piling could occur on **112** days of the 182 days (approximately **62**%) in the winter period and on all 183 days in the summer period, without exceeding the 10% seasonal average threshold.	Para 411: Based on maximum potential overlap with the SNS cSAC / SCI winter area (**16.7%**) it is estimated that piling could occur on **109** days of the 182 days (approximately **60**%) in the winter period and on all 183 days in the summer period, without exceeding the 10% seasonal average threshold.
5.2.5.1.2.3	Para 421: The assessment indicates that, without mitigation, **0.8**% or less…	Para 417: The assessment indicates that, without mitigation, **0.74**% or less…
5.2.5.1.2.3 – Table 5.13	Values in tables differ. Refer to documents for details.	
5.2.5.1.3	Para 426: The offshore development area (436km^2) is approximately **3%** of the SNS cSAC / SCI winter area (12,697km^2).	Para 422: The offshore development area (341km^2) is approximately **2.7%** (341km^2) of the SNS cSAC / SCI winter area (12,697km^2) **and approximately 0.17% (47km^2) of the of the SNS cSAC / SCI summer area (27,028km^2)**.
5.2.5.1.3	Para 428 last sentence: **The offshore development area is located entirely within the SNS cSAC / SCI winter area (*Figure 5*), therefore the potential effects of non-piling construction activities would only affect the winter area during the winter period.**	Not relevant to East Anglia ONE North
5.2.5.1.3	Para 429: Disturbance of harbour porpoise would not on average exceed 10% (approximately **3%**).	Para 426: Disturbance of harbour porpoise would not on average exceed 10% (maximum of **2.7%**).

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.2.5.1.3	Not included within East Anglia TWO.	Para 428: **Based on the noise modelling the number of porpoise that could potentially be disturbed is significantly less with up to 1.87 harbour porpoise around rock placement activities (0.0005% of the North Sea MU in 3.08km^2 area.**
5.2.5.1.3	Values in Table 5.16 differ, refer to documents for details.	
5.2.5.1.4	Para 438: There will be an average of **4.5** vessel movements per day during the construction period. Therefore, the vessels during construction could represent an increase of approximately 6% in the number of vessels during the summer period (**approximately 78.5 vessels per day**) and approximately **6.3%** increase in the number of vessels during the winter periods **(approximately 75.5 vessels per day)**,	Para 436: There will be an average of **4.6** vessel movements per day during the construction period. Therefore, the vessels during construction could represent an increase of approximately 4% in the number of vessels during the summer period and approximately **4.6%** increase in the number of vessels during the winter periods, compared to current baseline vessel numbers.
5.2.5.1.4	Paragraph 442: As outlined above, the East Anglia **ONE North** total offshore development area (**436km^2**) is approximately **3%** of the SNS cSAC / SCI winter area	Paragraph 441: As outlined above, the East Anglia **ONE North** total offshore development area (**341km^2**) is approximately **2.7%** of the SNS cSAC / SCI winter area **(12,697km^2) and approximately 0.17% (47km^2) of the of the SNS cSAC / SCI summer area (27,028km^2).**
5.2.5.1.4	Paragraph 443: Disturbance of harbour porpoise would not exceed 20% (**approximately 3%)** of the seasonal component of the SNS cSAC / SCI at any one time	Paragraph 442: Disturbance of harbour porpoise would not exceed 20% (**up to 2.7%)** of the seasonal component of the SNS cSAC / SCI at any one time.
5.2.5.1.4	Paragraph 444: (e.g. all 182 days in winter period)	Paragraph 443: (e.g. all 182 days in winter **period and 183 days in the summer** period)
5.2.5.1.4	Paragraph 446: The assessment indicates that approximately **0.09%** of the North Sea MU reference population could be temporarily disturbed from the total offshore development area	Paragraph 445: The assessment indicates that approximately **0.06%** of the North Sea MU reference population could be temporarily disturbed from the total offshore development area

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.2.5.1.5	Paragraph 450: the estimated maximum number of harbour porpoise that may be temporarily disturbed as a result of underwater noise from single piling and UXO clearance is up to **0.9%** of the reference population.	Paragraph 450: the estimated maximum number of harbour porpoise that may be temporarily disturbed as a result of underwater noise from single piling and UXO clearance is up to **0.4%** of the reference population.
5.2.5.1.6	Paragraph 455: During the construction of East Anglia **TWO** there will be an increase in vessel traffic, with an estimated average of **136** trips per month.	Paragraph 455: During the construction of East Anglia ONE North there will be an increase in vessel traffic with an estimated average of **124** trips per month.
5.2.5.1.6	Paragraph 456: Therefore, based on an average of **4.5** vessel movements per day	Paragraph 456: Therefore, based on an average of **4.1** vessel movements per day
5.2.5.1.6	Values in Table 5.18 differ, see documents for details	
5.2.5.1.7	Paragraph 466: The maximum potential area of temporary physical disturbance and/or temporary loss of habitat to fish during construction could be approximately **9.97km^2** in total, approximately **2.29%**	Paragraph 466: The maximum potential area of temporary physical disturbance and/or temporary loss of habitat to fish during construction could be approximately **10.5km^2** in total, approximately **3%**
5.2.5.1.7	Paragraph 470: As outlined above, the total offshore development area (436km^2) is approximately **3%** of the SNS cSAC / SCI winter area.	Paragraph 469: As outlined above, the total offshore development area (341km^2) is approximately 2.7% (341km^2) of the SNS cSAC / SCI winter area (12,697km^2) **and approximately 0.17% (47km^2) of the of the SNS cSAC / SCI summer area (27,028km^2).**
5.2.5.1.7	Paragraph 474: estimated maximum number of harbour porpoise that could potentially be affected by any potential changes to prey availability… is less than **0.09**% of the NS MU reference population	Paragraph 473: estimated maximum number of harbour porpoise that could potentially be affected by any potential changes to prey availability… is less than **0.06**% of the NS MU reference population
5.2.5.1.9.1	Values in Table 5.19 differ, see documents for further details.	
5.2.5.1.9.1	Paragraph 494: based on the worst-case scenario of **41.6** days piling and ADD activation	Paragraph 493: based on the worst-case scenario of **37.4** days piling and ADD activation
5.2.5.1.9.1	Values in Table 5.20 differ, see documents for further details.	

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.2.5.1.9.1	Paragraph 496: harbour porpoise that could potentially be disturbed during any UXO clearance in the offshore cable corridor at the same time as piling in the windfarm site is less than **0.9**% of the NS MU reference population	Paragraph 495: harbour porpoise that could potentially be disturbed during any UXO clearance in the offshore cable corridor at the same time as piling in the windfarm site is less than **0.75**% of the NS MU reference population
5.2.5.1.9.2	Values in Table 5.21 differ, see documents for further details.	
	Paragraph 498: Disturbance of harbour porpoise during piling and other construction activities including vessels would not exceed 20% (up to **17.8**%) of the seasonal component of the SNS cSAC / SCI	Paragraph 497: Disturbance of harbour porpoise during piling and other construction activities including vessels would not exceed 20% (up to **17.5**%) of the seasonal component of the SNS cSAC / SCI
5.2.5.1.9.2	Values in Table 5.22 differ, see documents for further details.	
5.2.5.1.9.2	Values in Table 5.23 differ, see documents for further details.	
	Paragraph 502: The assessment indicates that **0.5%** or less of the North Sea MU reference population could be temporarily displaced during…	Paragraph 501: The assessment indicates that **0.4%** or less of the North Sea MU reference population could be temporarily displaced during…
5.2.5.1.9.2	Values in Table 5.24 differ, see documents for further details.	
5.2.5.2.1	Paragraph 511: for **60** 300m wind turbines the potential area of possible behavioural response for harbour porpoise is up to **1.2km^2** (**0.47%** of the **255km^2** East Anglia **TWO** windfarm site	Paragraph 511: for **53** 300m wind turbines the potential area of possible behavioural response for harbour porpoise is up to **0.84km^2** (**0.4%** of the **208km^2** East Anglia **ONE North** windfarm site
5.2.5.2.1	Paragraph 512: The East Anglia TWO windfarm site (**255km^2**) is approximately **2%** of the winter SNS cSAC / SCI.	511: The East Anglia ONE North windfarm site (**208km^2**) is approximately **1.6%** overlap with the winter SNS cSAC / SCI **area and approximately 0.17% overlap with the summer area.**
5.2.5.2.1	Paragraph 513: The maximum area of potential PTS or TTS from cumulative exposure for **60 300m wind turbines is 1.86km^2, based on the underwater noise modelling**	Paragraph 512: maximum area of potential PTS or TTS from cumulative exposure for **53 300m wind turbines is 1.3km^2. If all turbines were in the winter area of the site the maximum potential area of effect would be 0.8% of the winter area; or if all turbines were in the summer area of**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	(*Table 5.25*), is approximately 0.015% of the winter SNS cSAC / SCI (12,697km^2).	**the site the maximum potential area of effect would be 0.05% of the summer area.**
5.2.5.2.1	Paragraph 514: maximum area of possible behavioural response **(1.2km^2), based on the underwater noise modelling (*Table 5.25*), is approximately 0.0095% of the winter SNS cSAC / SCI.**	Paragraph 513: maximum area of possible behavioural response **(0.84km^2) for 53 300m wind turbines is approximately 0.007% of the winter area or 0.003% of the summer area.**
5.2.5.2.1	Paragraph 515: disturbance of harbour porpoise as a result of underwater noise from operational turbines at East Anglia TWO (alone) would not exceed 20% (up to **2%**)	Paragraph 514: disturbance of harbour porpoise as a result of underwater noise from operational turbines at East Anglia TWO (alone) would not exceed 20% (up to **1.6%**)
5.2.5.2.1	Values in Table 5.26 differ, see documents for further details.	
5.2.5.2.1	Paragraph 518: harbour porpoise that could potentially be disturbed as a result of underwater noise from operational turbines at East Anglia **TWO** (alone) is **0.05%**	Paragraph 517: harbour porpoise that could potentially be disturbed as a result of underwater noise from operational turbines at East Anglia **ONE North** (alone) is **0.036%**
5.2.5.2.1	Values in Table 5.27 differ, see documents for further details.	
5.2.5.2.2	Paragraph 522: The offshore development area (**436km^2**) is approximately **3%** of the SNS cSAC / SCI winter area (12,697km^2).	Paragraph 521: offshore development area (**341km^2**) approximately **2.7%** of the SNS cSAC / SCI winter area (12,697km^2) **and approximately 0.17% (47km^2) of the of the SNS cSAC / SCI summer area (27,028km^2).**
	Paragraph 530: for two large vessels per day the potential maximum area of **possible behavioural response** for harbour porpoise is 0.142km^2 **(0.033%** of the **436km^2** total offshore development area).	Paragraph 529: for two large vessels per day the potential maximum area of disturbance for harbour porpoise is 0.142km^2 (**0.042%** of the **341km^2** offshore development area).
5.2.5.2.3	Paragraph 533: offshore development area (**436km^2**) is approximately **3%** of the winter **SNS cSAC / SCI.**	Paragraph 532: offshore development area (**341km^2**) is approximately **2.7%** of the winter area **and approximately 0.17% of the of the summer area.**
5.2.5.2.3	Paragraph 534: The maximum area of possible behavioural response to vessels during operation and maintenance (0.142km^2), based on the underwater noise modelling (***Table***	Paragraph 533: The maximum area of possible behavioural response to vessels during operation and maintenance (0.142km^2), based on the underwater noise modelling (***Table***

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	5.17), is approximately 0.0011% of the winter **SNS cSAC / SCI.**	***5.17***), is approximately 0.0011% of the winter area **or 0.00052% of the summer area.**
5.2.5.2.3	Paragraph 538: …be disturbed as a result of operation and maintenance vessels at East Anglia **TWO** (alone) is up to **0.09%** of the NS MU reference population	Paragraph 537: …be disturbed as a result of operation and maintenance vessels at East Anglia **ONE North** (alone) is up to **0.06%** of the NS MU reference population
5.2.5.2.5	Paragraph 548: During operation, the worst-case total area of habitat loss has been estimated to be up to **2.025km^2** in total at East Anglia **TWO**, up to **0.5%** of the offshore development area	Paragraph 547: During operation, the worst-case total area of habitat loss has been estimated to be up to **1.88km^2** in total at East Anglia ONE North, up to **0.55%** of the offshore development area**.**
5.2.5.2.5	Paragraph 551: offshore development area (**436km^2**), approximately **3%** of the winter **SNS cSAC / SCI**. This is very precautionary, as outlined above it is highly unlikely that any changes in prey resources could occur over the entire windfarm area and the offshore cable corridor. **It is more likely that effects would be restricted to any areas of habitat loss (approximately 2km^2), up to 0.02% of the SNS cSAC / SCI winter area.**	Paragraph 551: offshore development area (**341km^2**), approximately **2.7%** of the winter area and approximately **0.17%** of the of the summer area. This is very precautionary, as outlined above it is highly unlikely that any changes in prey resources could occur over the entire windfarm site and the offshore cable corridor.
5.2.5.4	Values in Table 5.28 differ, see documents for further details.	
5.2.5.5.1	Paragraph 584: likely range of offshore construction dates between **2025 and 2027**	Paragraph 586: likely range of offshore construction dates between **2026 and 2028**
5.2.5.5.1	Paragraph 585: …installation of **60** 300m wind turbines with pin-piles, five platforms with pin-piles and 10 minute ADD activation per pile, would be up to **41.6 days**. Therefore, the maximum active piling duration, based on the worst-case scenario would be approximately **9%** of the approximate 27 month construction period	Paragraph 587: …installation of **53** 300m wind turbines with pin-piles, five platforms with pin-piles and 10 minute ADD activation per pile, would be up to **37.4 days**. Therefore, the maximum active piling duration, based on the worst-case scenario would be approximately **8%** of the approximate 27 month construction period
5.2.5.5.1	Table 5.30 differs, see documents for further details.	
5.2.5.5.1	Paragraph 590: This highly conservative potential worst-case scenario for offshore windfarms that could be piling at the	Paragraph 591: This highly conservative potential worst-case scenario for offshore windfarms that could be piling at the

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	same time as East Anglia **TWO** in the North Sea MU includes three other UK offshore windfarms (***Table 5.30***): **Creyke Beck A**; Sofia (formerly Teesside B); and Norfolk **Vanguard**.	same time as East Anglia **ONE North** in the North Sea MU includes four other UK offshore windfarms (***Table 5.30***): **Creyke Beck B**; Sofia (formerly Teesside B); **Hornsea Project Three**; and Norfolk **Boreas**.
5.2.5.5.1	Paragraph 592: However, there is the potential to exceed 20% of the SNS cSAC / SCI **winter** area based on the maximum potential overlap for single piling at the **four** offshore windfarms (***Table 5.31***).	Paragraph 593: However, there is the potential to exceed 20% of the SNS cSAC / SCI **summer** area based on the maximum potential overlap for single piling at the **five** offshore windfarms (***Table 5.31***). **Although East Anglia ONE North would only make a small contribution, up to 4.3%, to the maximum potential overlap with the summer area**
5.2.5.5.1	Table 5.31 differs, see documents for further details.	
5.2.5.5.1	Values in Table 5.32 differ, see documents for further details.	
5.2.5.5.1	Paragraph 607 and 608 in East Anglia TWO and East Anglia ONE North respectively differ as per the OWFs included in the assessment as outlined above.	
5.2.5.5.1	Paragraph 609: For the potential worst-case scenario, with single piling at East Anglia **TWO** and concurrent piling at **Creyke Beck A**, Sofia and **Norfolk Vanguard**, the estimated maximum area of potential disturbance is up to **14,868km^2**, without any overlap in the potential areas of disturbance at each windfarm or between windfarms. Therefore, maximum number of harbour porpoise that could potentially be temporarily disturbed is **12,605** individuals, which represents approximately **4%** of the North Sea MU reference population	Paragraph 610: For the potential worst-case scenario, with single piling at East Anglia **ONE North** and concurrent piling at **Creyke Beck B**, Sofia, Hornsea Project Three and **Norfolk Boreas**, the estimated maximum area of potential disturbance is up to **19,116km^2**, without any overlap in the potential areas of disturbance at each windfarm or between windfarms. Therefore, maximum number of harbour porpoise that could potentially be temporarily disturbed is **16,377** individuals, which represents approximately **4.7%** of the North Sea MU reference population

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.2.5.5.1	Paragraph 610: Based on a single pile installation at each of the **four** offshore windfarms, the estimated maximum area of potential disturbance is **8,496km²**, without any overlap in the potential areas of disturbance between windfarms. Therefore, the maximum number of harbour porpoise that could potentially be temporarily disturbed is **6,947** individuals which represent approximately **2%** of the North Sea MU reference population	Paragraph 611: Based on a single pile installation at each of the **five** offshore windfarms, the estimated maximum area of potential disturbance is **10,620km²**, without any overlap in the potential areas of disturbance between windfarms. Therefore, the maximum number of harbour porpoise that could potentially be temporarily disturbed is **8,833** individuals which represent approximately **2.6%** of the North Sea MU reference population
5.2.5.5.1	Table 5.33 differs, see documents for further details.	
5.2.5.5.2.1	Paragraph 623: If one UXO detonation was undertaken, the potential area of disturbance could be (2,124km²) which would be approximately **16%** of the winter area or **8%** of summer area.	Paragraph 624: If one UXO detonation was undertaken, the potential area of disturbance could be (2,124km²) which would be approximately **16.7%** of the winter area and **7.9%** of summer area.
5.2.5.5.2.1	Paragraph 643: This highly conservative approach identified **six** UK offshore windfarms: **Creyke Beck B**; Teesside A; Thanet Extension; **Hornsea Project 3**; Norfolk **Boreas**; and East Anglia **ONE North**.	Paragraph 646: This highly conservative approach identified **five** UK offshore windfarms: **Creyke Beck A** Teesside A Thanet Extension Norfolk **Vanguard** East Anglia **TWO**
5.2.5.5.2.1	Paragraph 647: The in-combination assessment indicates that if the **six** offshore windfarms were conducting non-piling construction activities, the estimated maximum in-combination area of disturbance, based on the worst-case scenario of the entire offshore windfarm area, is **2,779km²**	Paragraph 650: The in-combination assessment indicates that if the **five** offshore windfarms were conducting non-piling construction activities, the estimated maximum in-combination area of disturbance, based on the worst-case scenario of the entire offshore windfarm area, is **1,997km²**
5.2.5.5.2.3	Paragraph 648: Two of the offshore windfarms are located in or overlap with the **winter** area and the estimated maximum	Para 651: Three of the offshore windfarms are located in or overlap with the **winter** area and the estimated maximum in-

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	in-combination area of disturbance for the **winter** area is **237km²**, which represents approximately **1.9%** of the winter SNS cSAC / SCI area	combination area of disturbance for the **winter** area is **287km²**, which represents approximately **2.26%** of the **winter** SNS cSAC / SCI area
5.2.5.5.2.3	Paragraph 651: Three of the offshore windfarms are located in or overlap with the **summer** area and the estimated maximum in-combination area of disturbance for the **summer** area is **1,347km²**, which represents approximately **5%** of the **summer** SNS cSAC / SCI area	Paragraph 652: Two of the offshore windfarms are located in or overlap with the **summer** area and the estimated maximum in-combination area of disturbance for the summer area is **1,095km²**, which represents approximately **4.05%** of the summer SNS cSAC / SCI area
5.2.5.5.2.3	Table 5.38 differs, see documents for further details.	
5.2.5.5.2.3	Table 5.39 differs, see documents for further details.	
5.2.5.5.2.3	Paragraph 654: The in-combination assessment indicates that if all six of these offshore windfarms in the southern North Sea were conducting non-piling construction activities at the same time, the estimated maximum in-combination area of disturbance is **2,862km²** and the maximum number of harbour porpoise that could potentially be disturbed is **2,434** individuals, which represents approximately **0.7%** of the North Sea MU reference population	Paragraph 657: The in-combination assessment indicates that if all six of these offshore windfarms in the southern North Sea were conducting non-piling construction activities, at the same time, the estimated maximum in-combination area of disturbance is **1,997km²** and the maximum number of harbour porpoise that could potentially be disturbed is **1,652** individuals, which represents approximately **0.5%** of the North Sea MU reference population
5.2.5.5.2.3	Table 5.40 differs, see documents for further details.	
5.2.5.5.2.3	Paragraph 660: Operational offshore windfarms were considered part of the baseline if they were operational at the time of the start of the East Anglia **TWO** site specific surveys (**November 2015**). Therefore, offshore windfarms were screened into the CIA as having the potential to be newly operational by the East Anglia TWO construction period, in that they are currently under construction or will be constructed and operational by **2025**.	Paragraph 660: Operational offshore windfarms were considered part of the baseline if they were operational at the time of the start of the East Anglia **ONE North** site specific surveys (**September 2016**). Therefore, offshore windfarms were screened into the CIA as having the potential to be newly operational by the East Anglia **ONE North** construction period, in that they are currently under construction or will be constructed and operational by **2026**.
5.2.5.5.3	Paragraph 667: The maximum number of harbour porpoise that could potentially be temporarily disturbed is **12,964**	Paragraph 670: The maximum number of harbour porpoise that could potentially be temporarily disturbed is **15,366**

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	individuals, which represents approximately **4%** of the North Sea MU reference population	individuals, which represents approximately **4.45%** of the North Sea MU reference population
5.2.5.5.3	Table 5.44 differs, see documents for further details.	
5.2.5.5.4	Paragraph 676: the number of harbour porpoise that could have a potential increased collision risk with vessels in offshore windfarm sites in the North Sea MU during construction would be **214** individuals	Paragraph 679: the number of harbour porpoise that could have a potential increased collision risk with vessels in offshore windfarm sites in the North Sea MU during construction would be **205** individuals
5.2.5.5.4	Table 5.45 differs as per above row.	
5.2.5.5.7	Values in Table 5.46 differ, see documents for further details.	
5.3	Paragraph 688: The Wash and North Norfolk SAC is located approximately **159km** from the East Anglia TWO windfarm site at the closest point, **94km from the cable corridor** and 108km from the landfall site	Paragraph 691: The Wash and North Norfolk SAC is located approximately **100km** from the East Anglia ONE North windfarm site at the closest point and 108km from the landfall site
	Paragraph 691: Blakeney Point is located approximately **113km** from the East Anglia **TWO** windfarm site	Paragraph 694: Blakeney Point is located approximately **111km** from the East Anglia **ONE North** windfarm site
5.3.1.2	Paragraph 697: **Twelve** individual seals were recorded during the aerial surveys for the proposed East Anglia **TWO** project, **from November 2015 to April 2016, from September 2016 to October 2017, and May 2018 (21 months)**, these were not identified to species level	Paragraph 700: **Twenty** individual seals were recorded during the aerial surveys for the proposed East Anglia **ONE North** project, from **September 2016 to July 2018 (23 months),** these were not identified to species level
5.3.1.2	Bullet list after Paragraph 699: • The East Anglia **TWO** windfarm site the density of harbour seal is estimated to be **0.0007/km^2** • The offshore cable corridor the density is estimated to be **0.01** harbour seal per km^2; and • The overall density estimate for the offshore development area is **0.006** harbour seal per km^2.	Bullet list after paragraph 702: • The East Anglia **ONE North** windfarm site; the density of harbour seal is estimated to be **0.0005/km^2** • The offshore cable corridor; the density is estimated to be **0.02** harbour seal per km^2; and

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
		• The overall density estimate for the offshore development area is **0.008** harbour seal per km^2.
	Bullet list after Paragraph 704: • East Anglia TWO windfarm site the density of grey seal is estimated to be **0.015/km^2**; • The offshore cable corridor the density is estimated to be **0.08** grey seal per km^2; and • The overall density estimate for the offshore development area is **0.04** grey seal per km^2	Bullet list after Paragraph 707: • East Anglia ONE North windfarm site; the density of grey seal is estimated to be **0.001/km^2**; • The offshore cable corridor; the density is estimated to be **0.09** grey seal per km^2; and • The overall density estimate for the offshore development area is **0.03** grey seal per km^2
5.3.3.1.1.1	Values in Table 5.49 differ, see documents for further details.	
5.3.3.1.1.2	Values in Table 5.50 differ, see documents for further details.	
5.3.3.1.2.1	Paragraph 720: Without any mitigation, the estimated maximum number of harbour seal that could potentially be at risk of PTS as a result of a single strike of the maximum monopile or pin-pile hammer energy is **0.000007** individuals (**0.00000014%** of the South-East England MU; **0.0000002%** of The Wash and Blakeney Point count	Paragraph 723: Without any mitigation, the estimated maximum number of harbour seal that could potentially be at risk of PTS as a result of a single strike of the maximum monopile or pin-pile hammer energy is **0.05** harbour seal (**0.00098%** of the South-East England MU; **0.0013%** of The Wash and Blakeney Point count
5.3.3.1.2.1	Paragraph 722: The number of harbour seal that could potentially be at risk of PTS as a result of cumulative exposure during piling of pin-piles with a maximum hammer energy of 2,400kJ is **0.077** harbour seal (**0.0015%** of the South-East England MU; **0.002%** of The Wash and Blakeney Point count).	Paragraph 725: The number of harbour seal that could potentially be at risk of PTS as a result of cumulative exposure during piling of pin-piles with a maximum hammer energy of 2,400kJ is **0.05** harbour seal (**0.00098%** of the South-East England MU; **0.0013%** of The Wash and Blakeney Point count).
5.3.3.1.2.1	Paragraph 723: The number of grey seal that could potentially be at risk of PTS as a result of cumulative exposure during piling of pin-piles with a maximum hammer energy of 2,400kJ is **1.65** grey seal (**0.027%** of the South-	Paragraph 726: The number of grey seal that could potentially be at risk of PTS as a result of cumulative exposure during piling of pin-piles with a maximum hammer energy of 2,400kJ is **0.1** grey seal (**0.0016%** of the South-

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	East England MU; **0.2%** of The Wash and Blakeney Point count	East England MU; **0.0013%** of The Wash and Blakeney Point count).
5.3.3.1.2.1	Values in Table 5.51 differ, see documents for further details.	
5.3.3.1.2.1	Values in Table 5.52 differ, see documents for further details.	
5.3.3.1.2.2	Paragraph 727: The potential ADD activation, based on up to 10 minutes per pile, would be up to **57.3 hours** (approximately **2.4 days**) for up to **344** pin-piles for wind turbines and platforms.	Paragraph 730: The potential ADD activation, based on up to 10 minutes per pile, would be up to **51.3** hours (approximately **2 days**) for **308** pin-piles.
5.3.3.1.2.3	Values in first row of Table 5.53 differ, see documents for further details.	
5.3.3.1.2.3	Table 5.54 differs, see documents for further details.	
5.3.3.1.2.3	Table 5.55 differs, see documents for further details.	
5.3.3.1.4	Table 5.56 differs, see documents for further details.	
5.3.3.1.5	Table 5.57 differs, see documents for further details.	
5.3.3.1.5	Values in Table 5.58 differs, see documents for further details.	
5.3.3.1.7.1	Paragraph 763: The maximum number of harbour seal that could potentially be disturbed is **25.5**, based on **0.006/km^2** density in the offshore development area. This represents **0.5%** of the South-East England MU population or, as a worst-case scenario, **0.7%** of the population from The Wash and Blakeney Point in The Wash and North Norfolk Coast SAC.	Paragraph 766: The maximum number of harbour seal that could potentially be disturbed is **34**, based on **0.008/km^2** density in the offshore development area. This represents **0.67%** of the South-East England MU population or, as a worst-case scenario, **0.89%** of the population from The Wash and Blakeney Point in The Wash and North Norfolk Coast SAC.
5.3.3.1.7.1	Paragraph 764: The maximum number of grey seal that could potentially be disturbed is **170**, based on **0.04/km^2** density in the offshore development area. This represents **3%** of the South-East England MU or, as a worst-case	Paragraph 767: The maximum number of grey seal that could potentially be disturbed is **127**, based on **0.03/km^2** density in the offshore development area. This represents **2%** of the South-East England MU or, as a worst-case

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	scenario, **4.5%** of the population from The Wash and Blakeney Point…	scenario, **16.2%** of the population from The Wash and Blakeney Point…
5.3.3.1.7.2	Paragraph 767: Disturbance from piling would be up to 2,124km^2 (based on 26km EDR) with **140km^2** of cable corridor not overlapped by piling impact area, giving a maximum potential area of disturbance is up to **2,264km^2**.	Paragraph 770: Disturbance from piling would be up to 2,124km^2 (based on 26km EDR) with **133km^2** of cable corridor not overlapped by piling impact area, giving a maximum potential area of disturbance is up to **2,257km^2**.
	Paragraph 768: The maximum number of harbour seal that could potentially be disturbed is **14**, based on **0.006/km^2** density in the offshore development area. This represents **0.3%** of the South-East England MU or, as a worst-case scenario, **0.4%** of the 3,801 harbour seal from The Wash and Blakeney Point…	Paragraph 771: The maximum number of harbour seal that could potentially be disturbed is **18**, based on **0.008/km^2** density in the offshore development area. This represents **0.36%** of the South-East England MU or, as a worst-case scenario, **0.47%** of the 3,801 harbour seal from The Wash and Blakeney Point…
5.3.3.1.7.2	Paragraph 769: maximum number of grey seal that could potentially be disturbed is **91**, based on **0.04/km^2** density in the offshore development area. This represents **1.5%** of the South-East England MU or, as a worst-case scenario, **11.6%** of the 786 grey seals from The Wash and Blakeney Point…	Paragraph 772: maximum number of grey seal that could potentially be disturbed is **68,** based on **0.03/km^2** density in the offshore development area. This represents **1.1%** of the South-East England MU or, as a worst-case scenario, **8.7%** of the 786 grey seals from The Wash and Blakeney Point…
5.3.3.1.8.1	Paragraph 778: Based upon ***Table 5.30*** this scenario includes **three** other UK offshore windfarms: **Creyke Beck A**; Sofia; and Norfolk **Vanguard**.	Paragraph 646: Based upon ***Table 5.30*** this scenario includes **four** other UK offshore windfarms: **Creyke Beck B** Sofia; **Hornsea Project Three**; and Norfolk **Boreas**.
5.3.3.1.8.1	Paragraph 777: For the potential worst-case scenario, with single piling at East Anglia **TWO** and concurrent piling at **Creyke Beck A**, Sofia and Norfolk **Vanguard**, the estimated maximum area of potential disturbance is up to **14,868km^2**...	Paragraph 780: For the potential worst-case scenario, with single piling at East Anglia **ONE North** and concurrent piling at **Creyke Beck B**, Sofia, **Hornsea Project Three** and Norfolk **Boreas**, the estimated maximum area of potential disturbance is up to **19,116km^2**...

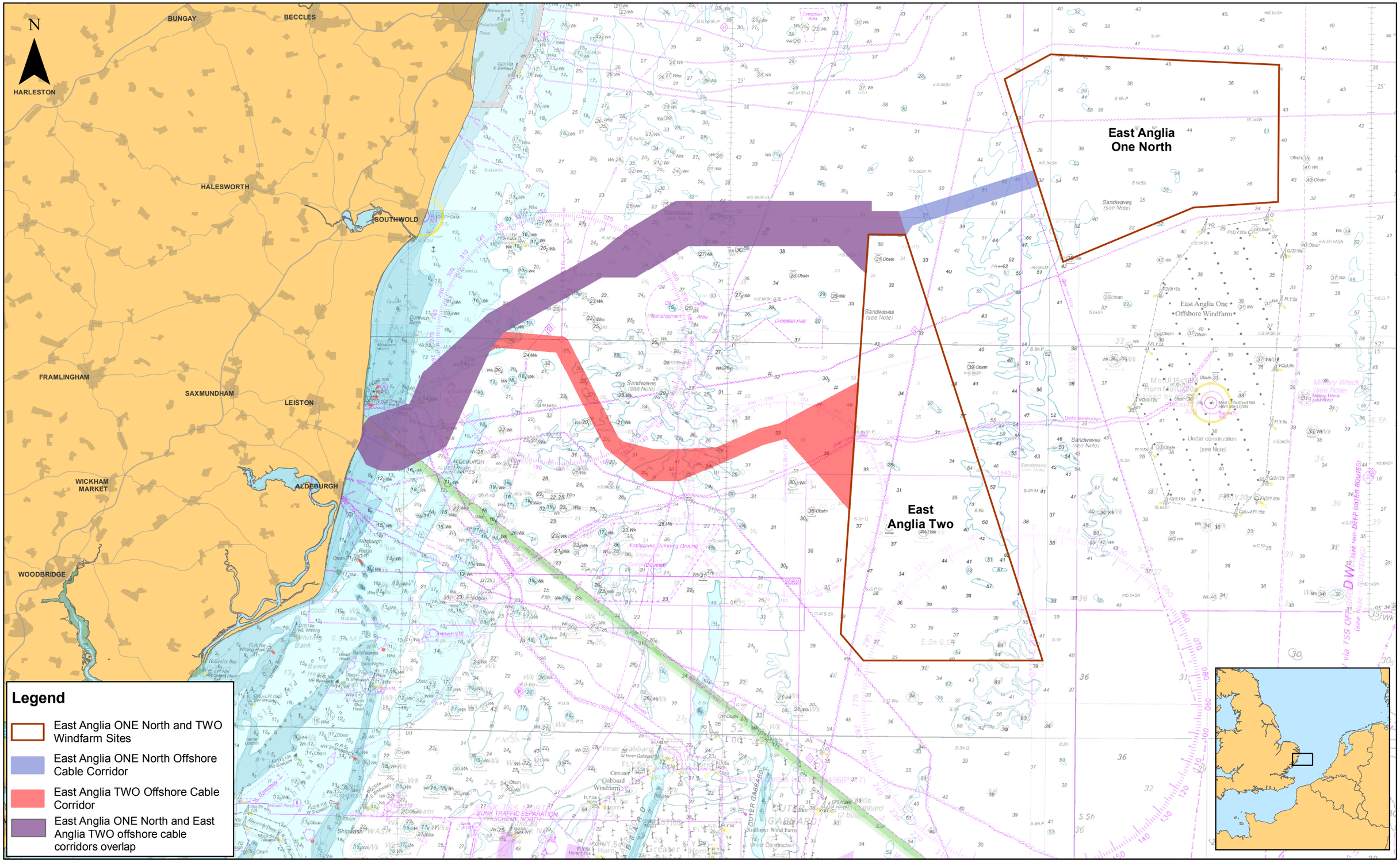
Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.3.3.1.8.1	Paragraph 778: The maximum number of harbour seal that could potentially be temporarily disturbed is **8** individuals (***Table 5.64***). This represents **0.16%** of the South-East England MU or, as a worst-case scenario**, 0.26%**...Therefore, **0.02%** of the in-combination reference population (43,161 harbour seal) could potentially be temporarily disturbed.	Paragraph 781: The maximum number of harbour seal that could potentially be temporarily disturbed is **61** individuals (***Table 5.59***). This represents **1.2%** of the South-East England MU or, as a worst-case scenario, **1.6%**...Therefore, **0.14%** of the in-combination reference population (43,161 harbour seal) could potentially be temporarily disturbed.
5.3.3.1.8.1	Paragraph 779: The maximum number of grey seal that could potentially be temporarily disturbed is **634** individuals (***Table 5.64***). This represents up to **3%** of the in-combination reference population (18,748 grey seal) could be temporarily affected.	Paragraph 782: The maximum number of grey seal that could potentially be temporarily disturbed is **1,342** individuals (***Table 5.64***). This represents up to **7.2%** of the in-combination reference population (18,748 grey seal) could be temporarily affected.
5.3.3.1.8.1	Paragraph 780: Based on the more likely single pile installation at each of the four offshore windfarms, the estimated maximum area of potential disturbance is **8,496km^2**, without any overlap in the potential areas of disturbance between windfarms. The maximum number of harbour seal that could potentially be temporarily disturbed is **5 individuals**, which represents **0.01%** of the in-combination reference population (***Table 5.64***). The maximum number of grey seal that could potentially be temporarily disturbed is **333** individuals, which represents **1.8%** of the in-combination reference population	Paragraph 783: Based on the more likely single pile installation at each of the four offshore windfarms, the estimated maximum area of potential disturbance is 10,620km^2, without any overlap in the potential areas of disturbance between windfarms. The maximum number of harbour seal that could potentially be temporarily disturbed is **39 individuals**, which represents **0.09%** of the in-combination reference population (***Table 5.64***). The maximum number of grey seal that could potentially be temporarily disturbed is **703** individuals, which represents **3.7%** of the in-combination reference population
5.3.3.1.8.1	Table 5.59 differs, see documents for further details.	
5.3.3.1.8.2	Paragraph 783: This precautionary realistic worst-case scenario, includes **six** UK offshore windfarms: **Creyke Beck B**; Teesside A; Thanet Extension; **Hornsea Project 3**;	Paragraph 786: This precautionary realistic worst-case scenario, includes **five** UK offshore windfarms: **Creyke Beck A**; Teesside A; Thanet Extension; **Norfolk Vanguard**; and

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	Norfolk Boreas; and **East Anglia ONE North**.	**East Anglia TWO**.
5.3.3.1.8.2	Paragraph 786: The assessment indicates that if all **six** of these offshore windfarms were conducting construction activities, other than piling, at the same time, the estimated maximum cumulative area of disturbance is **2,862km^2**	Paragraph 789: The assessment indicates that if all **five** of these offshore windfarms were conducting construction activities, other than piling, at the same time, the estimated maximum cumulative area of disturbance is **1,997km^2**
5.3.3.1.8.2	Paragraph 787: The maximum number of harbour seal that could potentially be disturbed is **11** individuals, which represents approximately **0.03%** of the in-combination reference population or **0.3%** of the Wash and Blakeney Point count	Paragraph 790: The maximum number of harbour seal that could potentially be disturbed is **6** individuals, which represents approximately **0.01%** of the in-combination reference population or **0.16%** of the Wash and Blakeney Point count
5.3.3.1.8.2	Paragraph 788: The maximum number of grey seal that could potentially be disturbed is **117** individuals, which represents approximately 0.6% of the in-combination reference population **or up to 15% of the Wash and Blakeney Point count**	Paragraph 791: The maximum number of grey seal that could potentially be disturbed is **106** individuals, which represents approximately 0.6% of the in-combination reference population
5.3.3.1.8.2	Table 5.60 differs, see documents for further details.	
5.3.3.1.8.3	Paragraph 795: The maximum number of grey seal that could potentially be disturbed is 217 individuals, which represents approximately 1.2% of the in-combination reference population **or up to 27.6% of The Wash and Blakeney Point count (*Table 5.61*). However, it is highly unlikely that all grey seal would be from the Wash and Blakeney Point.**	Paragraph 798: The The maximum number of grey seal that could potentially be disturbed is 217 individuals, which represents approximately 1.2% of the in-combination reference population **(*Table 5.61*).**
5.3.3.1.8.3	Table 5.61 differs does not show totals for % of Wash and Blakeney Point and South East England MU.	
5.3.3.1.8.4	Paragraph 800: One UXO detonation could potentially disturb up to 212 grey seal (1.15% of the in-combination reference population; or 3.5% of the South-East England MU; or 27% of the Wash and Blakeney Point count).	No equivalent paragraph in East Anglia ONE North

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	However, it is highly unlikely that all grey seal would be from the Wash and Blakeney Point.	
5.3.3.1.9	Values in Table 5.62 differ, see documents for further details.	
5.3.3.2.1	Values in Table 5.63 differ, see documents for further details.	
5.3.3.3.1	Paragraph 822: The number of harbour seal that could be present in the area is **2.6** (based on **0.006/km²** density).	Paragraph 824: The number of harbour seal that could be present in the area is **2.7** (based on **0.008/km²** density).
5.3.3.3.1	Paragraph 823: number of grey seal that could be present in the offshore development area is **17**, (based on **0.04/km²** density). This represents **0.3%** of the South-East England MU or, as a worst-case scenario, **2.2%** of the 786 grey seals from the Wash and Blakeney Point…	Paragraph 825: The number of grey seal that could be present in the offshore development area is **10**, (based on **0.03/km²** density). This represents **0.2%** of the South-East England MU or, as a worst-case scenario, **1.3%** of the 786 grey seals from the Wash and Blakeney Point…
5.4	Paragraph 833: The Humber Estuary SAC is located **178km** from the East Anglia TWO windfarm site and **164km** from the offshore cable corridor…	Paragraph 835: The Humber Estuary SAC is located **174km** from the East Anglia ONE North windfarm site and **181km** from the offshore cable corridor…
5.4.1.2	Bullet list after paragraph 839: • The East Anglia TWO windfarm site density is estimated to be **0.015** grey seal per km²; • The offshore cable corridor density is estimated to be **0.08** grey seal per km²; and • The overall density estimate for the East Anglia TWO offshore development is **0.04** grey seal per km².	Bullet list after paragraph 841: • The East Anglia ONE North windfarm site density is estimated to be **0.001** grey seal per km²; • The offshore cable corridor density is estimated to be **0.09** grey seal per km²; and • The overall density estimate for the East Anglia ONE North offshore development is **0.03** grey seal per km².
5.4.2.1	Values in Table 5.67 differ, see documents for further details.	
5.4.2.2.1	Paragraph 847: Indicative operational and maintenance vessel movements indicate that there could be up to **687** vessel round trips per year (average of 1-2 vessels per day).	Paragraph 849: Indicative operational and maintenance vessel movements indicate that there could be up to **647** vessel round trips per year (average of 1-2 vessels per day).

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
5.4.2.2.1	Values in Table 5.68 differ, see documents for further details.	
5.4.2.3.1	Paragraph 860: The number of grey seal that could be present in the offshore development area is **17**, based on **0.04/km^2** density. This represents **0.3%** of the South-East England MU or, as a worst-case scenario, **0.4%** of the 3,964 grey seals from Donna Nook in the Humber Estuary SAC.	Paragraph 862: The number of grey seal that could be present in the offshore development area is **10**, (based on **0.03/km^2** density). This represents **0.16%** of the South-East England MU or, as a worst-case scenario, **0.25%** of the 3,964 grey seals from Donna Nook in the Humber Estuary SAC.
5.5.2.1	Bullet list after paragraph 875: • The East Anglia **TWO** windfarm site the density of grey seal is estimated to be **0.015/km^2**; • The offshore cable corridor the density is estimated to be **0.08** grey seal per km^2; and • The overall density estimate for the East Anglia **TWO** offshore development is **0.04** grey seal per km^2.	Bullet list after paragraph 877: • The East Anglia **ONE North** windfarm site the density of grey seal is estimated to be **0.001/km^2**; • The offshore cable corridor the density is estimated to be **0.09** grey seal per km^2; and • The overall density estimate for the East Anglia **ONE North** offshore development is **0.03** grey seal per km^2.
5.5.2.1	Values in Table 5.70 differ, see documents for further details.	
5.5.2.2.1	Paragraph 886: The maximum number of grey seal that could be at increased vessel collision risk is **0.87**, **0.01%** of the South-East England MU or **0.05%** of the Horsey count.	Paragraph 888: The maximum number of grey seal that could be at increased vessel collision risk is **0.5**, **0.008%** of the South-East England MU or **0.03%** of the Horsey count.
5.5.2.3.1	Paragraph 897: The number of grey seal that could be present in the area is **17**, based on **0.04/km^2** density in the offshore development area. This represents **0.3%** of the South-East England MU or, as a worst-case scenario, **0.9%** of the Horsey count.	Paragraph 899: The number of grey seal that could be present in the area is **10**, based on 0**.03/km^2** density in the offshore development area. This represents **0.16%** of the South-East England MU or, as a worst-case scenario, **0.55%** of the Horsey count.
5.6	Paragraph 907: up to two UXO clearance operations; and up to two seismic surveys has a maximum total area of up to **19,435km^2**, as a worst-case scenario. The maximum of **204** harbour seal (0.5% of in-combination reference population)	Paragraph 909: up to two UXO clearance operations; and up to two seismic surveys has a maximum total area of up to **21,232km^2**, as a worst-case scenario. The maximum of **232** harbour seal (**0.5%** of in-combination reference population)

Section	East Anglia TWO Characteristic	East Anglia ONE North Characteristic
	and up to **1,201** grey seal (**6.5%** of in-combination reference population) could potentially be temporarily disturbed.	and up to **1,514** grey seal (**8.1%** of in-combination reference population) could potentially be temporarily disturbed.
5.6	Table 5.72 differs, see documents for further details.	



Rev	Date	By	Comment		
				Prepared:	AB
1	17/01/2019	AB	First Issue.	Checked:	BH
				Approved:	PP

1:250,000 Scale @ A3

0 3.75 7.5 15 Km

East Anglia ONE North and TWO

East Anglia ONE North and East Anglia TWO offshore development areas

Drg No	EA1N-EA2-DEV-DRG-IBR-000482
Rev	1
Date	17/01/19
Figure	1

Datum: WGS 1984 Projection: Zone 31N

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Legend

- East Anglia ONE North and East Anglia TWO Proposed Onshore Development Area
- East Anglia ONE North Substation
- East Anglia TWO Substation
- National Grid Substation
- National Grid Overhead Line Realignment Works Area

East Anglia ONE North and East Anglia TWO Proposed Onshore Development Area

- Landfall Study Area
- Onshore Cable Corridor Study Area
- Onshore Substation and National Grid Infrastructure Refined Area of Search

Offsite Highway Works

- Indicative Offsite Highway Works (AIL Structures)
- Indicative Offsite Highway Works (junction improvement)

SCOTTISHPOWER RENEWABLES

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				Checked:	PW
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1:50,000 Scale @ A3

0 1 2 Km

East Anglia ONE North and TWO

East Anglia ONE North and East Anglia TWO Proposed Onshore Development Area

Drg No	EA1N-EA2-DEV-DRG-IBR-000483
Rev	1
Date	18/01/19
Figure	2

Coordinate System: BNG Datum: OSGB36

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