

The Great Grid Upgrade

Sea Link

Preliminary Environmental Information Report

Volume: 1

Part 3 Kent Onshore Scheme

Chapter 14 Kent Onshore Scheme Inter-Project
Cumulative Effects

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3.14 Kent Onshore Scheme Inter-Project Cumulative Effects

3.14.1 Introduction

- 3.14.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) presents how the preliminary inter-project cumulative effects assessment has considered the potential significant cumulative effects that may arise from the Kent Onshore Scheme together with ‘other developments’. A description of inter-project cumulative effects and the methodology for their assessment is presented in **Volume 2, Part 1, Appendix 1.5.A: Cumulative Effects Methodologies**.
- 3.14.1.2 The draft Order Limits, which illustrate the boundary of the Proposed Project, are illustrated on **Figure 1.1.1 Draft Order Limits** and the Kent Onshore Scheme Boundary is illustrated on **Figure 1.1.3 Kent Onshore Scheme Boundary**.
- 3.14.1.3 This chapter should be read in conjunction with:
- **Volume 1, Part 1, Chapter 4: Description of the Proposed Project**; and
 - **Volume 1, Part 1, Chapter 5: PEIR Approach and Methodology**.
- 3.14.1.4 This chapter is supported by the following figures:
- **Volume 3, Figure 3.14.1 Inter-Project Cumulative Effects – Long List Developments**;
 - **Volume 3, Figure 3.14.2 Manston Airport**;
 - **Volume 3, Figure 3.14.3 Residential Development, Canterbury Road, Ramsgate, Kent**;
 - **Volume 3, Figure 3.14.4 Stonelees Golf Course Expansion**;
 - **Volume 3, Figure 3.14.5 Residential Development, Hoo Farm**;
 - **Volume 3, Figure 3.14.6 Richborough Energy Park**;
 - **Volume 3, Figure 3.14.7 Goshall Valley Solar Farm**; and
 - **Volume 3, Figure 3.14.8 Solar Farm southwest of Solton Manor Farm**.
- 3.14.1.5 This chapter is supported by the following appendices:
- **Volume 2, Part 1, Appendix 1.5.A: Cumulative Effects Methodologies**;
 - **Volume 2, Part 1, Appendix 1.5.B: Inter-Project Cumulative Effects Initial Long List** ; and
 - **Volume 2, Part 3, Appendix 3.14.A: Descriptions of other projects**.

3.14.2 Assessment

Stage 1

Review of the Zone of Influence (ZOI)

- 3.14.2.1 The first step in identifying the long list was to establish the Zone of Influence (ZOI) for the Kent Onshore Scheme. **Volume 2, Part 1, Appendix 1.5.A: Cumulative Effects Methodologies** presents how the ZOI has been defined based upon the largest study area of the Kent Onshore technical chapters (**Volume 1, Part 3, Chapter 2-12**) and doubling that area in order to identify a long list of 'other developments'. These study areas take into account environmental influences such as landscape and visual amenity originating at distance from the Kent Onshore Scheme and the wide-ranging nature of protected species rather than the maximum area over which the Kent Onshore Scheme could result in potential effects.
- 3.14.2.2 During Scoping an overall cumulative assessment ZOI of 20 km was proposed. This was based upon the largest topic study area, ecology and biodiversity being identified as 10 km, therefore a ZOI of 20 km from the Kent Onshore Scheme was established to identify the long list of other developments. However, this is an iterative process and it is acknowledged that there are a number of proposed developments that, if progressed, would require the ZOI to be reviewed.
- 3.14.2.3 This ZOI has been backchecked as part of this PEIR to take account of any changes in the proposed study areas since scoping. The study areas applied in the technical chapters (**Volume 1, Part 3, Chapter 2-12**) are summarised in Table 3.14.1. The rationale for these study areas are explained in section 6 of the relevant technical chapters 2-12. These study areas were presented during Scoping and discussed with stakeholders prior to submission of this PEIR as required. The initial long list of other developments presented in **Volume 2, Part 1, Appendix 1.5.B: Inter-Project Cumulative Effects Initial Long List** has been updated to reflect any additional other developments that have been considered since Scoping.

Table 3.14.1 Study areas for environmental topics

Environmental topic	Study areas
Landscape and Visual	3 km from draft Order Limits for converter station, substation, landfall and High Voltage Alternating Current (HVAC) corridor and 1 km from draft Order Limits for High Voltage Direct Current (HVDC) corridor.
Ecology and Nature Conservation	10 km from the draft Order Limits for internationally important wildlife sites, 5 km for nationally important wildlife sites, 2 km for locally important wildlife sites. Impacts on internationally important wildlife sites also consider functionally-linked land. For Kent Natural England guidance indicates this is relevant for golden plover (<i>Pluvialis apricaria</i>) who can be affected by electricity infrastructure up to 5 km from the Special Protection Areas (SPA) for which they are interest features.
Cultural Heritage	500 m from draft order limits for baseline, and 2 km for impacts on setting

Environmental topic	Study areas
Water Environment	500 m from the draft Order Limits.
Geology and Hydrogeology	1 km from the draft Order Limits.
Agriculture and Soils	5 km
Traffic and Transport	4 to 6 km
Air Quality	<p>Construction dust – 350 m from the draft Order Limits.</p> <p>Trackout – 50 m of the routes used by construction vehicles on the public highway, 500 m from the site entrances.</p> <p>Construction vehicle emissions – 200 m of the affected road network.</p> <p>Non-Road Mobile Machinery (NRMM) emissions – 200 m of the proposed construction compounds.</p> <p>Substation Back-up Generator Emissions – 200 m from the proposed generator.</p>
Noise and Vibration	300 m from works locations for construction noise, 100 m from works locations for construction vibration, and 1 km from sources of operational noise.
Socio-economics	500 m from the draft Order Limits for land public rights of way, residential properties, business premises, visitor attractions, community facilities, open space and development land. 1 km from the draft Order Limits for local communities that could be affected by severance. ¹
Health and Wellbeing	For the assessment of health effects, the study area is defined based on the geographic extent of other topics for each environmental aspect of relevance to health and wellbeing, including, landscape and visual, traffic and transport, air quality, noise and vibration, and socio-economics, recreation and tourism. These study areas are set out above and are considered sufficient to identify health receptors which could be impacted by the Kent Onshore Scheme in cumulation with other development.

¹ The economic impacts of the Proposed Project including employment generation and gross added value (GVA) generation during the construction phase has been assessed from using a 60-minute drive time study area. The cumulative economic effects have not been assessed within the inter-project cumulative assessment due to the absence of detailed information of other projects at this stage and will be assessed at the ES stage.

Stage 2

3.14.2.4 Table 3.14.2 below presents the refined long list of other developments considered during Stage 1 and 2. This list has been kept under review throughout the preparation of the PEIR and has been updated as required. Where other developments have been struck through (example) this is because they were previously identified for inclusion but they are no longer being considered because the development has been withdrawn, completed or expected to be complete prior to the construction of the Proposed Project and therefore is considered as part of the baseline for the preliminary assessment.

Table 3.14.2 Major Developments ‘Long List’ to be considered in the Inter-Project Cumulative Effects Assessment (CEA)

ID	Other Development	Development Description	Tier²	Distance from the Kent Onshore Scheme (km)
10	Manston Airport	<p>The planned reopening of Manston Airport by RiverOak Strategic Partners (RSP) as a new international air freight airport. It aims to increase and facilitate import and export of goods in the London and Southeast area and have capacity for 10,000 air freight flights annually. The development consent order (DCO) includes:</p> <ul style="list-style-type: none"> • 19 widebody parking stands; • 4 narrow body passenger stands • 65,000 m² of cargo terminal; • 100 ha of non-aircraft pavement (247 acres); • 57 ha of aircraft pavement; • 105,000 m² of landside development; 	1	1.8

² The developments have been categorised into tiers which descend from Tier 1 (most certain) to Tier 3 (least certain) and reflect a diminishing degree of certainty which can be assigned to each development.

ID	Other Development	Development Description	Tier ²	Distance from the Kent Onshore Scheme (km)
		<ul style="list-style-type: none"> • 8 business aviation hangars; and • 3 recycling hangars and aprons. 		
17	Residential Development, Canterbury Road, Ramsgate, Kent	A proposed housing development consisting of 141 new homes along with landscaping and open space across by the developers, Monson Homes Ltd. It will be situated on the north side of Foxborough Lane, Ramsgate, Kent.	1	1.15
30	Stonelees Golf Course Expansion	<p>An expansion of the Stonelees Golf Course including the following:</p> <ul style="list-style-type: none"> • 10 detached holiday homes; • 10 semidetached, 2 storey holiday homes; • Site Office; and • Associated parking facilities and landscaping. 	1	0.2
44	Residential Development, Hoo Farm	A proposed housing development consisting of 23 new homes by the developers, Hume Planning. It will be situated at Hoo Farm. The development will also involve the demolition of existing building as well as associated parking and landscaping.	1	2.02

ID	Other Development	Development Description	Tier²	Distance from the Kent Onshore Scheme (km)
79	Richborough Energy Park	The expansion of Richborough Energy Park over a 4.45 ha area by Sheaf Energy (owned by Pacific Green). This includes a 249 MW capacity battery storage facility across 201 shipping container units. Along with this the planning application includes associated electrical plant equipment and landscaping.	1	0.66
100	Goshall Valley Solar Farm	An Environmental Impact Assessment (EIA) Scoping Opinion for a proposed 46 ha solar farm with an electricity generation capacity of 49 MW developed by Statkraft UK Ltd.	2	1.32
108	Solar Farm southwest of Solton Manor Farm	The erection of a solar farm with battery storage and associated infrastructure for a period of 40 years	2,3	15.15

3.14.2.5 Table 3.14.3 to Table 3.14.9 provide a summary of stage 1 and 2 of the Kent Onshore Scheme inter-project CEA. As such the tables provide details for the 'other developments' listed in and identifies which of the topic-specific ZOIs the 'other development' falls within and evaluates if the 'other development' should be taken forward to stage 3 and 4 of the assessment

Table 3.14.3 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Manston Airport (ID10)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
Manston Airport					
Landscape and Visual	Yes	Yes	Yes	Potential for cumulative landscape and visual effects which could be significant from both representative viewpoints and landscape character areas.	Yes
Ecology and Biodiversity	Yes	Yes	Yes	Potential for cumulative effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated and can be affected by airport development further afield. Possible scope for cumulative effects on bats who can also commute long distances.	Yes
Historic Environment	Yes	No		The Manston Airport scheme will not result in any physical impacts on assets that fall within the Kent Onshore Scheme. Likewise, the nature of the scheme, and the distance from the Kent Onshore Scheme, means no significant impacts on the setting of assets assessed as part of the Proposed Project are predicted.	No
Water Environment	No	No	Yes	A small area of the land at Manston Airport drains to the Minster Marshes, which is a	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
				shared receptor. However, given the scale and nature of the development no likely significant cumulative effects are anticipated.	
Geology and Hydrogeology	No	No	Yes	Manston Airport is located outside of the ZOI for geology and hydrogeology therefore there are unlikely to be significant cumulative impacts.	No
Agriculture and Soils	Yes	Yes	Yes	The land at Manston Airport has been classified as Non-Agricultural and due to previous land-use likely comprises made-ground, therefore it is unlikely that there would be potential for any significant cumulative effects.	No
Traffic and Transport	Yes	Yes	Yes	Potential for cumulative traffic and transport effects across several road link and road junction receptors during the peak construction phase (2029) as a result of construction and operational traffic associated with Manston Airport.	Yes
Air Quality	Yes (potentially for vehicle emissions)	Yes	Yes	Vehicles associated with the Manston airport development may share the same routes as vehicles associated with the construction of the Proposed Project. This could result in cumulative air quality effects.	Yes
Noise and Vibration	No	No	Yes	Potential for cumulative construction traffic noise effects across several road link and	Yes

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
				road junction receptors during the peak construction phase (2029) as a result of construction traffic associated with Manston Airport.	
Socio-Economics, Recreation and Tourism	No	No	Yes	Manston Airport is located outside of the ZOI for socio-economics, recreation and tourism therefore there are unlikely to be significant cumulative impacts.	No
Health and Wellbeing	Yes	Yes	Yes	Potential for cumulative health and wellbeing effects linked to landscape and visual amenity, traffic and transport and air quality.	Yes

Table 3.14.4 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Residential Development, Canterbury Road, Ramsgate, Kent (ID17)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
Residential Development, Canterbury Road, Ramsgate, Kent					
Landscape and Visual	Yes	Yes	Insufficient information to determine	Despite there being shared Landscape Character Areas (LCA) the cumulative effect of the Kent Onshore Scheme with this project is unlikely to result in a significant cumulative effect on landscape character or visual amenity due to the small scale and different nature of the development.	No
Ecology and Biodiversity	Yes	Yes	Yes	Potential for cumulative effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated and can also be affected by residential development within this zone (e.g. through loss of functionally linked habitat).	Yes
Historic Environment	Yes	No		The Canterbury Road residential scheme will not result in any physical impacts on assets that fall within the	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
				Kent Onshore Scheme. Likewise, the nature of the scheme, and the distance from the Kent Onshore Scheme, means no significant impacts on the setting of assets assessed as part of the Proposed Project are predicted.	
Water Environment	No	No	Insufficient information to determine	The Residential Development, Canterbury Road, Ramsgate development is located in a separate hydrological catchment and there are no shared receptors or pathways.	No
Geology and Hydrogeology	No	No	Insufficient information to determine	The Canterbury Road residential development in Ramsgate is located outside of the ZOI for geology and hydrogeology therefore there are unlikely to be significant cumulative impacts.	No
Agriculture and Soils	Yes	Yes	Insufficient information to determine	Due to the size and nature of the proposed development it is unlikely to have a significant cumulative effect.	No
Traffic and Transport	Yes (in terms of vehicle trips)	Yes	Insufficient information to determine	The development is in close proximity to the Kent Onshore Scheme with shared road link and road junction receptors. Whilst significant cumulative effects are unlikely it should be taken forward for full assessment to establish the	Yes

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
				potential cumulative effect during the peak construction phase (2029) as a result of operational traffic during Phase 1 (65 dwellings) and Phase 2 (145 dwellings).	
Air Quality	Yes (potentially for vehicle emissions)	Yes	Insufficient information to determine	Vehicles associated with the development may share the same routes as vehicles associated with the construction of the Proposed Project. This could result in cumulative air quality effects.	Yes
Noise and Vibration	Yes	Yes	Insufficient information to determine	Potential cumulative construction noise and vibration impacts, depending on temporal scope.	Yes
Socio-Economics, Recreation and Tourism	No	No	Insufficient information to determine	The Canterbury Road residential development in Ramsgate is located outside of the ZOI for socio-economics, recreation and tourism, therefore there are unlikely to be significant cumulative impacts.	No
Health and Wellbeing	Yes	Yes	Insufficient information to determine	Potential for there to be cumulative impacts on health and wellbeing linked to traffic and transport, air quality and noise and vibration.	Yes

Table 3.14.5 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Stonelees Golf Course Expansion (ID30)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways?	
Stonelees Golf Course Expansion					
Landscape and Visual	Yes	Yes	Insufficient information to determine	The development whilst different in scale and nature is in close proximity to the Kent Onshore Scheme with shared LCAs and visual receptors. Whilst significant cumulative effects are unlikely it should be taken forward for full assessment to properly establish the potential cumulative effect.	Yes
Ecology and Biodiversity	Yes	Yes	Yes	Potential for cumulative effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated and can also be affected by other types of habitat loss within this zone (e.g. through loss of functionally linked habitat).	Yes
Historic Environment	Yes	No		The Stonelees Golf Course scheme will not result in any physical impacts on assets that fall within the Kent Onshore Scheme. Likewise, the nature of the scheme, and the distance from the Kent Onshore Scheme, means no significant	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways?	
				impacts on the setting of assets assessed as part of the Proposed Project are predicted.	
Water Environment	Yes	Yes	Insufficient information to determine	The development is located in close proximity to the Stonelees Main Stream, a common receptor. However, the development is different in nature and much smaller in scale and significant cumulative effects are considered unlikely.	No
Geology and Hydrogeology	Yes	Yes	Insufficient information to determine	The nature of the development is such that significant effects on geology and hydrogeology are not anticipated. In addition, significant contamination sources have not been identified within the Kent Onshore Scheme and legislation and planning requires that for new development, risks to human health and controlled waters from potential contamination are appropriately mitigated and therefore cumulative adverse effects in relation to geology and hydrogeology are unlikely. Furthermore, each development will be bound by its own Code of Construction Practice or Construction Environmental Management Plan (CEMP), where applicable, and it is assumed each development will apply best practice	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
				construction methods so as to minimise impacts from contamination on ground conditions and groundwater.	
Agriculture and Soils	Yes	Yes	Insufficient information to determine	Due to the size and nature of the proposed development it is unlikely to have a significant cumulative effect.	No
Traffic and Transport	Yes	Yes	Insufficient information to determine	Due to the small-scale nature of the development (less than 50 dwellings), any potential increases in traffic levels as a result of the operational phase of this scheme has been treated through the application of TEMPro growth as discussed with Kent County Council (KCC) Highways.	No
Air Quality	Yes	Yes	Insufficient information to determine	Due to the size of the development, it is unlikely to have a significant contribution to cumulative air quality impacts.	No
Noise and Vibration	No	No	Insufficient information to determine	There are no shared noise sensitive receptors with the Stonelees Golf Course Expansion development.	No
Socio-Economics, Recreation and Tourism	Yes	Yes	Insufficient information to determine	The Stonelees Golf Course Expansion development, comprising the development of holiday homes, has potential for cumulative impacts on tourism assets.	Yes

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
Health and Wellbeing	Yes	Yes	Insufficient information to determine	Potential for there to be cumulative impacts on health and wellbeing linked to landscape and visual amenity.	Yes

Table 3.14.6 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Residential Development, Hoo Farm (ID44)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
Residential Development, Hoo Farm					
Landscape and Visual	Yes	Yes	Insufficient information to determine	Despite there being shared LCAs the cumulative effect of the Kent Onshore Scheme with this project is unlikely to result in a significant cumulative effect on landscape character or visual amenity due to the small scale and different nature of the development and its relationship with the Kent Onshore Scheme.	No
Ecology and Biodiversity	Yes	Yes		No potential for cumulative effects given the small size of the Hoo Farm scheme	No
Historic Environment	No	No		The Hoo Farm residential scheme will not result in any physical impacts on assets that fall within the Kent Onshore Scheme. Likewise, the nature of the scheme, and the distance from the Kent Onshore Scheme, means no significant impacts on the setting of assets assessed as part of the Proposed Project are predicted.	No
Water Environment	No	No	Insufficient information to determine	The development is in the catchment of the Minster Stream, a common receptor. However, the development is	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways? different in nature and much smaller in scale and significant cumulative effects are considered unlikely.	
Geology and Hydrogeology	No	No	Insufficient information to determine	The Hoo Farm residential development is located outside of the ZOI for geology and hydrogeology therefore there are unlikely to be significant cumulative impacts.	No
Agriculture and Soils	Yes	Yes	Insufficient information to determine	Due to the size and nature of the proposed development it is unlikely to have a significant cumulative effect.	No
Traffic and Transport	Yes	Yes	Insufficient information to determine	Due to the small-scale nature of the development (less than 50 dwellings), any potential increases in traffic levels as a result of the operational phase of this scheme has been treated through the application of TEMPro growth as discussed with KCC Highways.	No
Air Quality	Yes (potentially for vehicle emissions)	No	Insufficient information to determine	Due to the size and location of the development, it is unlikely to have a significant contribution to cumulative air quality impacts.	No
Noise and Vibration	No	No	Insufficient information to determine	There are no shared noise sensitive receptors with the Hoo Farm development.	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
Socio-Economics, Recreation and Tourism	No	No	Insufficient information to determine	The Hoo Farm residential development is located outside of the ZOI for socio-economics, recreation and tourism, therefore there are unlikely to be significant cumulative impacts.	No
Health and Wellbeing	Yes	Yes	Insufficient information to determine	There are unlikely to be any significant cumulative impacts, due to the small size and location of the development, and due to the fact there is unlikely to be cumulative impacts on landscape and visual amenity, traffic and transport, air quality and noise and vibration.	No

Table 3.14.7 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Richborough Energy Park (ID79)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
Richborough Energy Park					
Landscape and Visual	Yes	Yes	Yes	Similar nature of development with shared LCAs and visual receptors with potential for significant effects.	Yes
Ecology and Biodiversity	Yes	Yes	Yes	Potential for cumulative effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated and can also be affected by other types of habitat loss within this zone (e.g. through loss of functionally linked habitat). Also potential for effects on wetland birds, plants, reptiles and invertebrates along the River Stour corridor.	Yes
Historic Environment	Yes	No		The Richborough Energy Park scheme will not result in any physical impacts on assets that fall within the Kent Onshore Scheme. There is limited potential for impacts on the setting of designated heritage assets being assessed as part of the Proposed Project, although these are likely to be limited due to distance, and topography.	Yes

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways?	
Water Environment	Yes	Yes	Yes	The Richborough Energy Park development is in close proximity to the River Stour, a shared receptor, with the potential for shared impact pathways.	Yes
Geology and Hydrogeology	Yes	Yes	Yes	The nature of the development is such that no significant effects on geology and hydrogeology are not anticipated. In addition, significant contamination sources have not been identified within the Kent Onshore Scheme and legislation and planning requires that for new development, risks to human health and controlled waters from potential contamination are appropriately mitigated and therefore cumulative adverse effects in relation to geology and hydrogeology are unlikely. Furthermore, each development will be bound by its own CEMP, where applicable, and it is assumed each development will apply best practice construction methods so as to minimise impacts from contamination on ground conditions and groundwater.	No
Agriculture and Soils	Yes	Yes	Yes	Due to the size and nature of the proposed development it is unlikely to have a significant cumulative effect.	No
Traffic and Transport	Yes	Yes	Yes	The development is expected to be complete and operational well in advance of the peak construction phase (2029),	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
				with limited operational traffic expected. As such, there is not expected to be any potential for cumulative effects.	
Air Quality	Yes	Yes	Yes	As the development is expected to be completed in advance of the peak construction phase, with limited operational traffic expected, it is likely the cumulative effects will be insignificant.	No
Noise and Vibration	Yes	Yes	Yes	Potential for cumulative operational noise effects.	Yes
Socio-Economics, Recreation and Tourism	No	No	Yes	There are no shared socio-economic, recreation and tourism receptors with the Richborough Energy Farm development.	No
Health and Wellbeing	Yes	Yes	Yes	Potential for there to be cumulative impacts on health and wellbeing linked to landscape and visual amenity and noise and vibration.	Yes

Table 3.14.8 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Goshall Valley Solar Farm (ID100)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
Goshall Valley Solar Farm					
Landscape and Visual	Yes	Yes	Insufficient information to determine	Not likely to have a significant cumulative effect due to limited combined theoretical visibility	No
Ecology and Biodiversity	Yes	Yes	Yes	Potential for cumulative effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated and can also be affected by other types of habitat loss within this zone (e.g. through loss of functionally linked habitat).	Yes
Historic Environment	Yes	No		The Goshall Valley Solar Farm scheme will not result in any physical impacts on assets that fall within the Kent Onshore Scheme. Likewise, the nature of the scheme, and the distance from the Kent Onshore Scheme, means no significant impacts on the setting of assets assessed as part of the Proposed Project are predicted.	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect? Relevant Shared receptors and/or pathways?	Progress to Stage 3
Water Environment	No	No	Insufficient information to determine	The Goshall Valley Solar Farm is located in the catchment of the River Stour, a shared receptor. However, the development is different in nature and scale and significant cumulative effects are considered unlikely.	No
Geology and Hydrogeology	No	No	Insufficient information to determine	The Goshall Valley solar farm is located outside of the ZOI for geology and hydrogeology therefore there are unlikely to be significant cumulative impacts.	No
Agriculture and Soils	Yes	Yes	Insufficient information to determine	This development has the potential for the removal of land from agricultural use and the disturbance of soil resources, and therefore has the potential for a cumulative impact.	Yes
Traffic and Transport	Yes	Yes	Insufficient information to determine	The development is small-scale (<50 MW) and will involve limited traffic movements during the construction phase (maximum of 24 weeks) with very low vehicle movements associated with the ongoing maintenance of the solar farm during the operational phase. As such, there is not expected to be potential for any cumulative effects.	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways?	
Air Quality	Yes (potentially for vehicle emissions)	Yes	Insufficient information to determine	Vehicles associated with the development may share the same routes as vehicles associated with the construction of the Proposed Project. This could result in cumulative air quality effects.	Yes
Noise and Vibration	No	No	Insufficient information to determine	There are no shared noise sensitive receptors with the Goshall Valley Solar Farm development.	No
Socio-Economics, Recreation and Tourism	No	No	Insufficient information to determine	The Goshall Valley Solar Farm is located outside of the ZOI for socio-economics, recreation and tourism, therefore there are unlikely to be significant cumulative impacts.	No
Health and Wellbeing	Yes	Yes	Insufficient information to determine	There is potential for cumulative health and wellbeing effects related to air quality.	Yes

Table 3.14.9 Matrix Summarising Stage 1 and 2 of the Inter -Project CEA - Solar Farm southwest of Solton Manor Farm (ID108)

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
Solar Farm southwest of Solton Manor Farm					
Landscape and Visual	No	No	Insufficient information to determine	No combined theoretical visibility and no potential for cumulative effects.	No
Ecology and Biodiversity	No	No		No cumulative effect due to distance	No
Historic Environment	Yes	No		The Solar Farm scheme near Solton Farm will not result in any physical impacts on assets that fall within the Kent Onshore Scheme. Likewise, the nature of the scheme, and the distance from the Kent Onshore Scheme, means no significant impacts on the setting of assets assessed as part of the Proposed Project are predicted.	No
Water Environment	No	No	Insufficient information to determine	The solar farm development is located in a separate hydrological catchment with no shared receptors or impact pathways.	No
Geology and Hydrogeology	No	No	Insufficient information to determine	The solar farm southwest of Solton Manor Farm is located outside of the ZOI for geology and hydrogeology therefore there are unlikely to be significant cumulative impacts.	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways?	
Agriculture and Soils	No	No	Insufficient information to determine	The Solar Farm scheme near Solton Farm is located outside of the ZOI for Agriculture and Soils therefore there are unlikely to be significant cumulative impacts	No
Traffic and Transport	Yes (in terms of vehicle trips)	Yes	Insufficient information to determine	The development is small-scale (<50 MW) and likely to be completed and operational well in advance of the peak construction phase (2029), with limited operational traffic expected as a result of the ongoing maintenance of the solar farm. Limited traffic movements are also expected during the construction phase (maximum of 24 weeks). As such, there is not expected to be potential for any cumulative effects.	No
Air Quality	No	No	Insufficient information to determine	Due to the size and location of the development, it is unlikely to have a significant contribution to cumulative air quality impacts.	No
Noise and Vibration	No	No	Insufficient information to determine	There are no shared noise sensitive receptors with the Solton Manor Farm development.	No
Socio-Economics, Recreation and Tourism	No	No	Insufficient information to determine	The Solton Manor Farm development is located outside of the ZOI for socio-economics, recreation and tourism, therefore there are unlikely to be significant cumulative impacts.	No

Technical Discipline	Within Technical Discipline Specific ZOI?	Progress in Stage 2	Overlap in temporal scope?	Scale and nature of development likely to have a significant cumulative effect?	Progress to Stage 3
				Relevant Shared receptors and/or pathways?	
Health and Wellbeing	No	No	Insufficient information to determine	The Solton Manor Farm development is located outside of the ZOI for health and wellbeing, therefore there are unlikely to be significant cumulative impacts.	No

Stage 3

- 3.14.2.6 Further information on all these other developments is provided in **Volume 2, Part 3, Appendix 3.14.A: Descriptions of other developments** in order to support stage 3. This appendix provides further information on the design, construction and programme for the other developments and has been used as a basis for the preliminary stage 3 assessment.

Stage 4

- 3.14.2.7 Stage 4 has entailed undertaking a preliminary CEA for the 'short list' of developments where that development has been taken through to stage 4 for a particular topic. The results of this preliminary assessment are reported in matrix format for each topic in Table 3.14.10 to Table 3.14.19. Where topics have not carried through any developments to stage 3 and stage 4 (i.e. geology and hydrogeology), no table is provided.
- 3.14.2.8 As this is a preliminary assessment, residual significance levels have not been presented, only whether a cumulative impact is likely to be significant or not.
- 3.14.2.9 Professional judgement has been applied in determining whether the combination of effects from two developments could result in a significant effect overall. As a guide and to aid consistency and transparency of how professional judgement has been applied, a 'significance matrix' has been developed, as presented in **Volume 2, Part 1, Appendix 1.5.A: Cumulative Effects Methodologies**, Table 1.5.A.2. As noted above, in all cases professional judgement has also been applied to each assessment.

Table 3.14.10 Landscape and Visual CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Landscape and Visual					
Manston Airport (ID10)	No effects on landscape character of LCA A1 Manston Chalk Plateau as a result of the Kent Onshore Scheme. Range of visual effects from representative viewpoints.	Direct effects on LCA A1 and potentially relatively widespread visibility associated with the proposals, although within the context of the existing infrastructure present at Manston.	No significant cumulative effects on landscape character. Whilst the Kent Onshore Scheme and the Manston Airport development would be visible in views from some of the representative viewpoints it is unlikely that these would represent a significant cumulative effect due to the geographic separation and distance.	N/A	Not Significant
Stonelees Golf Course Expansion (ID30)	Significant effects on LCA E1 Stour Marshes until mitigation planting establishes. Not significant effects from viewpoint 3, 8 and 9.	Direct, localised effects on LCA E1 Stour Marshes but within the immediate context of Richborough Energy Park. Views likely to be	The cumulative effect on LCA E1 Stour Marshes and viewpoints 3, 8 and 9 is unlikely to be any greater than the effects in isolation of the Kent Onshore Scheme.	Landscape mitigation proposed as part of the Kent Onshore Scheme	Not Significant

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Richborough Energy Park (ID79)	Significant effects on LCA E1 Stour Marshes until mitigation planting establishes. Not significant effects from viewpoint 3, 8 and 9.	experienced from viewpoint 3 on the Saxon Shore Way. Direct, localised effects on LCA E1 Stour Marshes but within the immediate context of Richborough Energy Park. Views likely to be experienced from viewpoint 3 on the Saxon Shore Way.	The cumulative effect on LCA E1 Stour Marshes and viewpoints 3, 8 and 9 is unlikely to be any greater than the effects in isolation of the Kent Onshore Scheme.	Landscape mitigation proposed as part of the Kent Onshore Scheme	Not Significant

Table 3.14.11 Ecology and Biodiversity CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Ecology and Biodiversity					
Manston Airport (ID10)	Potential for effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated.	Potential for similar effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, through loss of functionally-linked habitat.	Not possible to determine until non-breeding bird surveys of Kent Onshore Scheme are complete.	Mitigation likely to take the form of enhanced wet grassland with scrapes and suitable cropping regimes to offset any net loss of habitat. Individual projects would be responsible for mitigating their respective contributions to any loss.	To be determined in the ES when more data is available.
Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	Potential for effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which	Potential for similar effects on golden plover associated with Thanet Coast & Sandwich Bay	Not possible to determine until non-breeding bird surveys of Kent Onshore Scheme are complete.	Mitigation likely to take the form of enhanced wet grassland with scrapes and suitable	To be determined in the ES when more data is available.

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Stonelees Golf Course Expansion (ID30)	Potential for effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated.	Potential for similar effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, through loss of functionally-linked habitat.	Not possible to determine until non-breeding bird surveys of Kent Onshore Scheme are complete.	Mitigation likely to take the form of enhanced wet grassland with scrapes and suitable cropping regimes to offset any net loss of habitat. Individual projects would be responsible for mitigating their respective contributions to any loss.	To be determined in the ES when more data is available.

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Richborough Energy Park (ID79)	Potential for effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated. Also potential for impacts on other wetland birds, plants, invertebrates and reptiles along the Stour corridor from habitat loss or changes to habitat condition.	Potential for similar effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, through loss of functionally-linked habitat. Also potential for impacts on other wetland birds, plants, invertebrates and reptiles along the Stour corridor from habitat loss or changes to habitat condition.	Not possible to determine until non-breeding bird surveys of Kent Onshore Scheme are complete.	Mitigation likely to take the form of delivering areas of enhanced wet grassland with scrapes and suitable cropping regimes to offset any net loss of habitat. Individual projects would be responsible for mitigating their respective contributions to any loss.	To be determined in the ES when more data is available.

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Goshall Valley Solar Farm (ID100)	Potential for effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by electricity infrastructure development up to 5 km from the SPAs for which they are designated.	Potential for similar effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, through loss of functionally-linked habitat.	Not possible to determine until non-breeding bird surveys of Kent Onshore Scheme are complete.	Mitigation likely to take the form of delivering areas of enhanced wet grassland with scrapes and suitable cropping regimes to offset any net loss of habitat. Individual projects would be responsible for mitigating their respective contributions to any loss.	To be determined in the ES when more data is available.

Table 3.14.12 Historic Environment CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Historic Environment					
Richborough Energy Park (ID79)	Potential for impacts on the setting of designated heritage assets (including Richborough Fort).	Potential for impacts on the setting of designated heritage assets (including Richborough Fort).	Permanent impacts on the setting of designated assets for both schemes should be limited to the above ground infrastructure at the operational phase. Setting impacts should be limited due to existing screening/vegetation cover, as well as the distance between designated assets and the proposed above ground infrastructure, and the topography which provides some screening.	Potential mitigation of setting impacts through screening (associated with landscape mitigation proposed as part of the Proposed Project).	Not significant for setting impacts during the operations phase.

Table 3.14.13 Water Environment CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Water Environment					
Richborough Energy Park (ID79)	Potential for minor, short duration effects on the flow regime and floodplain and water quality of the River Stour during construction, and potential for changes to the local land drainage regime. Effects determined to be not significant.	Effects of a similar nature to those described for the Proposed Project.	No significant cumulative effects following implementation of embedded, control and management measures.	At this stage no mitigation measures relevant to water environment receptors are considered necessary to avoid significant effects.	Not significant

Table 3.14.14 Agriculture and Soils CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Agriculture and Soils					
Goshall Valley Solar Farm (ID100)	Possibility of cumulative effects on Best and Most Versatile Land and agricultural land loss from production.	Unlikely to be any significant cumulative effects, however, shared receptor locations not yet determined.	It is considered unlikely to have a significant cumulative impact based on the information available to date.	To be determined in the ES when more data is available.	To be determined in the ES when more data is available

Table 3.14.15 Traffic and Transport CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Traffic and Transport					
Manston Airport (ID10)	No significant effects on shared road link or road junction receptors as a result of construction traffic associated with the Kent Onshore Scheme.	No significant effects on shared road link or road junction receptors as a result of construction and operational traffic associated with Manston Airport.	No significant cumulative effects on traffic and transport. The cumulative effect of construction and operational trips associated with the Manston Airport development are unlikely to be any greater than the effects in isolation of the Kent Onshore Scheme.	No mitigation necessary	Not Significant
Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	No significant effects on shared road link or road junction receptors as a result of construction traffic associated with the Kent Onshore Scheme.	No significant effects on shared road link or road junction receptors as a result of operational traffic associated with the Canterbury Road residential development (Phases 1 and 2).	No significant cumulative effects on traffic and transport. The cumulative effect of operational trips associated with the Canterbury Road residential development (Phases 1 and 2) are unlikely to be any greater than the effects in isolation of the Kent onshore Scheme.	No mitigation necessary	Not Significant

Table 3.14.16 Air Quality CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Air Quality					
Manston Airport (ID10)	There is the potential for air quality effects as a result of construction vehicle emissions associated with the Proposed Project. Potential effects have not yet been determined at receptor locations; a more detailed assessment of air emissions from the Proposed Project will be covered in the ES once further data is available.	Shared receptor locations not yet determined.	It is considered unlikely to have a significant cumulative impact based on the information available to date.	Unlikely to need mitigation.	Unlikely to be significant.
Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	There is the potential for air quality effects as	Shared receptor locations not yet determined.	It is considered unlikely to have a significant cumulative impact based on the information available to date.	Unlikely to need mitigation.	Unlikely to be significant.

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
	a result of construction vehicle emissions associated with the Proposed Project. Potential effects have not yet been determined at receptor locations; a more detailed assessment of air emissions from the Proposed Project will be covered in the ES once further data is available.				
Goshall Valley Solar Farm (ID100)	There is the potential for air quality effects as a result of construction vehicle emissions associated with the Proposed Project. Potential effects have not yet been	Shared receptor locations not yet determined.	It is considered unlikely to have a significant cumulative impact based on the information available to date.	Unlikely to need mitigation.	Unlikely to be significant.

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
	determined at receptor locations; a more detailed assessment of air emissions from the Proposed Project will be covered in the ES once further data is available.				

Table 3.14.17 Noise and Vibration CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Noise and Vibration					
Manston Airport (ID10)	Negligible to low magnitude impacts on all proposed construction traffic routes.	Negligible magnitude impacts on all proposed construction traffic routes.	Negligible to low at all nearby Noise Sensitive Receptors (NSR).	No additional mitigation beyond Best Practical Means (BPM) that is already proposed by each respective project.	Not significant
Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	Negligible to low magnitude impacts at all NSR where BPM are applied to reduce impacts.	Based on being a similar project, negligible to low magnitude impacts would be expected at all NSR where BPM are applied to reduce impacts	Negligible to low at all nearby NSR.	No additional mitigation beyond BPM that is already proposed by each respective project.	Not significant
Richborough Energy Park (ID79)	Negligible to low magnitude impacts at all NSR where appropriate noise mitigation measures are considered during detailed design.	Negligible to low magnitude impacts at all NSR where appropriate noise mitigation measures are considered	Negligible to minor effects at all nearby NSR.	No additional mitigation beyond design measures already proposed by each respective project.	Not significant

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
		during detailed design.			

Table 3.14.18 Socio-Economics, Recreation and Tourism CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Socio-Economics, Recreation and Tourism					
Stonelees Golf Course Expansion (ID30)	No significant effects expected on any health receptors as a result of the Kent Onshore Scheme.	Unlikely to be significant effects on socio-economic, recreation and tourism receptors.	There are unlikely to be significant cumulative effects on socio-economics, recreation and tourism based on the currently available information.	No mitigation necessary	Not Significant

Table 3.14.19 Health and Wellbeing CEA

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Health and Wellbeing					
Manston Airport (ID10)	No significant effects expected on any health receptors as a result of the Kent Onshore Scheme.	Unlikely to be significant effects on health receptors, however shared receptor locations are not yet determined for Air Quality, as set out in Table 3.14.16.	There are unlikely to be significant cumulative effects on health and wellbeing based on the currently available information.	No mitigation necessary	Not Significant
Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	No significant effects expected on any health receptors as a result of the Kent Onshore Scheme.	Unlikely to be significant effects on health receptors, however shared receptor locations are not yet determined for Air Quality, as set out in Table 3.14.16.	There are unlikely to be significant cumulative effects on health and wellbeing given the available information to date.	No mitigation necessary	Not Significant

Project	Effects on shared receptors from the Proposed Project	Effects on shared receptors from the 'other developments'	Assessment of Cumulative effect with Project	Proposed Mitigation applicable to the Proposed Project including any apportionment	Preliminary Residual Cumulative Effect?
Stonelees Golf Course Expansion (ID30)	No significant effects expected on any health receptors as a result of the Kent Onshore Scheme.	Unlikely to be significant effects on health receptors.	There are unlikely to be significant cumulative effects on health and wellbeing based on the currently available information.	No mitigation necessary	Not Significant
Richborough Energy Park (ID79)	No significant effects expected on any health receptors as a result of the Kent Onshore Scheme.	Unlikely to be significant effects on health receptors.	There are unlikely to be significant cumulative effects on health and wellbeing based on the currently available information.	No mitigation necessary	Not Significant
Goshall Valley Solar Farm (ID100)	No significant effects expected on any health receptors as a result of the Kent Onshore Scheme.	Unlikely to be significant effects on health receptors, however shared receptor locations are not yet determined for Air Quality, as set out in Table 3.14.16.	There are unlikely to be significant cumulative effects on health and wellbeing based on the currently available information.	No mitigation necessary	Not Significant

3.14.3 Preliminary Assessment of Total Cumulative Effects

3.14.3.1 The Stage 4 assessment above provides a preliminary cumulative assessment for each topic with each of the other individual developments taken through to Stage 3 and 4 as per Advice Note Seventeen (Ref. 3.14.2). Due to the large number of other developments assessed a further preliminary assessment has been undertaken which considers an overall cumulative effect with the Proposed Project with all other developments together on shared receptors. This overall assessment is provided in the tables below. Where topics have not carried through any developments to Stage 3 and Stage 4 (i.e. geology and hydrology) or where only one other development has been taken forward (i.e. historic environment, water environment, agriculture and soils and socio-economics, recreation and tourism), no table is provided (in the latter instance this would have already been assessed in the previous sections).

Landscape and Visual

Table 3.14.20 Preliminary assessment of total cumulative effects for Landscape and Visual

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
LCA E1 Stour Marshes	Stonelees Golf Course Expansion (ID30)	The cumulative effect on LCA E1 is unlikely to be any greater than the effects in isolation of the Kent Onshore Scheme.	Not Significant
	Richborough Energy Park (ID79)	As above	
Representative Viewpoints	Manston Airport (ID10)	Whilst the Kent Onshore Scheme and the Manston Airport development would be visible in views from some of the representative viewpoints it is unlikely that these would represent a significant cumulative effect due to the geographic	Not Significant

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
		separation and distance.	
	Stonelees Golf Course Expansion (ID30)	The cumulative effect experienced at viewpoints 3, 8 and 9 is unlikely to be any greater than the effects in isolation of the Kent Onshore Scheme.	
	Richborough Energy Park (ID79)	As above	

3.14.3.2 The preliminary assessment of total cumulative effects for landscape character and visual amenity has identified that there would not be any significant cumulative effects on landscape character or visual amenity.

Ecology and Biodiversity

Table 3.14.21 Preliminary assessment of total cumulative effects for Ecology and Biodiversity

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
Thanet Coast & Sandwich Bay SPA	Manston Airport (ID10)	Potential for effects on golden plover associated with Thanet Coast & Sandwich Bay SPA, which according to Natural England guidance can be affected by development within 5 km from the SPAs for which they are designated.	Not possible to conclude prior to completing non-breeding bird surveys.
	Residential Development, Canterbury Road, Ramsgate (ID17)		
	Stonelees Golf Course Expansion (ID30)		
	Richborough Energy Park (ID79)		
	Goshall Valley Solar Farm (ID100)		
	Richborough Energy Park	Potential for effects on other wetland birds, plants, invertebrates and reptiles along the	Not possible to conclude prior to completing non-breeding bird surveys.

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
		Stour corridor from habitat loss or changes to habitat condition.	

3.14.3.3 Potential for cumulative effects exists where multiple large schemes lie within 5 km of Thanet Coast & Sandwich Bay SPA, due to the tendency of the non-breeding golden plover population of the SPA to forage and roost on land within this zone. There is thus potential for cumulative loss of functionally linked habitat associated with one or other SPAs. For Richborough Energy Park in particular, there is also potential for cumulative impacts on wetland invertebrates, birds, reptiles and other wildlife due to proximity of both projects to each other and the River Stour corridor.

Traffic and Transport

Table 14.22 Preliminary assessment of total cumulative effects for Traffic and Transport

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
A299 Hengist Way (northwest of the Sevenscore Roundabout) Receptors: RL1, RL2, RL3, RJ1, RJ2, RJ3	Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	The Canterbury Road residential development (Phases 1 and 2) will generate a maximum of 261 two-way vehicle trips (no HGVs) on the A299 Hengist Way (northwest of the Sevenscore Roundabout) in a 12-hour period which equates to a 1.1% increase from the future baseline (2029) traffic flows. When combined with construction traffic associated with the Kent Onshore Scheme and Manston Airport (see below), there is no step-change in category to	No significant cumulative effects on traffic and transport.

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
		that already assessed, and therefore no cumulative effects are anticipated.	
	Manston Airport (ID10)	The Manston Airport development will generate a maximum of 210 two-way vehicle trips (including 105 HGVs) on the A299 Hengist Way (northwest of the Sevenscore Roundabout) in a 12-hour period which equates to a less than 1% increase from the future baseline (2029) traffic flows. When combined with the Kent Onshore Scheme and the Canterbury Road residential development (see above), there is no step-change in category to that already assessed and therefore no cumulative effects are anticipated.	
A299 Hengist Way (east of the Sevenscore Roundabout) Receptor: RL4	Manston Airport (ID10)	The Manston Airport development will generate a maximum of 866 two-way vehicle trips (including 198 HGVs) on the A299 Hengist Way (east of the Sevenscore Roundabout) in a 12-hour period which equates to a 2.6% increase from the future baseline (2029) traffic flows. When combined with the Kent Onshore Scheme, there is no step-change in category	No significant cumulative effects on traffic and transport.

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
A256 Ramsgate Road (south of the Ebbsfleet Roundabout) Receptor: RL6	Manston Airport	<p>to that already assessed, and therefore no cumulative effects are anticipated.</p> <p>The Manston Airport development will generate a maximum of 662 two-way vehicle trips (including 99 HGVs) on the A256 Ramsgate Road (south of the Ebbsfleet Roundabout) in a 12-hour period which equates to a 2.5% increase from the future baseline (2029) traffic flows. When combined with the Kent Onshore Scheme, there is no step-change in category to that already assessed, and therefore no cumulative effects are anticipated.</p>	No significant cumulative effects on traffic and transport.
A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts) Receptor: RL5	Manston Airport	<p>The Manston Airport development will generate a maximum of 662 two-way vehicle trips (including 99 HGVs) on the A256 Richborough Way (between the Sevenscore and Ebbsfleet Roundabouts) in a 12-hour period which equates to a 2.5% increase from the future baseline (2029) traffic flows. When combined with the Kent Onshore Scheme, there is no step-change in category to that already assessed, and therefore no</p>	No significant cumulative effects on traffic and transport.

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
A299/A256/Cottington Link Road (Sevenscore) Roundabout Receptor: RJ4	Manston Airport	cumulative effects are anticipated. The Manston Airport development will generate a maximum of 866 two-way vehicle trips (including 198 HGVs) on the A299/A256/Cottington Link Road (Sevenscore) Roundabout in a 12-hour period which equates to a 2.1% increase from the future baseline (2029) traffic flows. When combined with the Kent Onshore Scheme, there is no step-change in category to that already assessed, and therefore no cumulative effects are anticipated.	No significant cumulative effects on traffic and transport.
A256/ Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout Receptor: RJ5	Manston Airport	The Manston Airport development will generate a maximum of 662 two-way vehicle trips (including 99 HGVs) on the A256/Ramsgate Road/Jutes Lane (Ebbsfleet) Roundabout in a 12-hour period which equates to a 1.7% increase from the future baseline (2029) traffic flows. When combined with the Kent Onshore Scheme, there is no step-change in category to that already assessed, and therefore no cumulative effects are anticipated.	No significant cumulative effects on traffic and transport.

Air Quality

Table 3.14.23 Preliminary assessment of total cumulative effects for Air Quality

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
Construction dust NRMM emissions, back up generator emissions	None	No cumulative effects are anticipated.	No significant cumulative effects.
Construction Vehicle Emissions	Manston Airport (ID10) Residential Development, Canterbury Road, Ramsgate, Kent (ID17) Goshall Valley Solar Farm (ID100)	Unknown. Will be determined in the ES when more data is available.	Unknown. Will be determined in the ES when more data is available.

- 3.14.3.4 Whilst there are a number of projects which overlap with the air quality ZOI, due to the nature and scale of the other developments, no significant cumulative effects are anticipated at this stage.
- 3.14.3.5 Receptors have not been identified for the construction vehicle emissions at this stage, however there is potential for cumulative impacts on shared receptors with a number of projects, especially along shared construction routes such as the A256. The significance of the cumulative impacts will be assessed in the ES when more data is available.

Noise and Vibration

Table 3.14.24 Preliminary assessment of total cumulative effects for Noise and Vibration

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
NSR located within the study of both the Proposed Project and other developments.	Manston Airport (ID10)	No significant cumulative effects.	No significant cumulative effects.
	Residential Development, Canterbury Road, Ramsgate, Kent (ID17)	No significant cumulative effects.	
	Richborough Energy Park (ID79)	No significant cumulative effects.	

3.14.3.6 The preliminary assessment of total cumulative effects on noise and vibration has not identified any likely significant cumulative effects.

Health and Wellbeing

Table 3.14.25 Preliminary assessment of total cumulative effects for Health and Wellbeing

Shared Receptor	Relevant other developments	Summary of the assessment of Cumulative effects with each of the other developments	Overall assessment of preliminary assessment of cumulative effects
Human health and wellbeing receptors within the study areas of both the Proposed Project and other developments.	Manston Airport (ID10)	To be determined in the ES when full results from the relevant environmental studies are available.	Unlikely to be any cumulative effects; this will be determined in the ES when full results from the relevant environmental studies are available.
	Residential Development, Canterbury	To be determined in the ES when	

Road, Ramsgate, Kent (ID17)	full results from the relevant environmental studies are available.
Stonelees Golf Course Expansion ID30)	To be determined in the ES when full results from the relevant environmental studies are available.
Richborough Energy Park (ID79)	To be determined in the ES when full results from the relevant environmental studies are available.
Goshall Valley Solar Farm (ID100)	To be determined in the ES when full results from the relevant environmental studies are available.

3.14.4 References

Ref. 3.14.1 National Grid (2022) Sea Link Scoping Report [online] available at: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020026/EN020026-000042-EN020026%20-%20Scoping%20Report%20-%20Volume%201%20-%20Part%201%20Introduction.pdf>

Ref. 3.14.2 Planning Inspectorate (2020). Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects [online] Available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-17/>

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