

# Rampion 2 Wind Farm

## Category 6: Environmental Statement

### Volume 2, Chapter 30: Inter-related effects

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## 30. Executive summary

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This chapter of the Rampion 2 Environmental Statement (ES) provides an assessment of the inter-related effects on the aspects considered within this ES. The inter-related effects assessment considers likely significant effects from multiple impacts and activities from the construction, operation and maintenance, and decommissioning phases of Rampion 2 on the same receptor, or group of receptors.

The assessment has been undertaken in compliance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations 2017') and specific guidance produced by the Planning Inspectorate. The identification of potential inter-related effects has been undertaken qualitatively using expert judgement based on information drawn from the individual aspect chapters of the ES. Noting that interrelated effects have, in many cases, already been assessed either inherently or explicitly within the aspect chapters.

Inter-related effects could potentially arise in one of two ways. The first type of inter-related effect is a project-lifetime effect, where multiple phases of the Proposed Development interact to create a potentially more significant effect on a receptor than in one phase alone. The phases for Rampion 2 are construction, operation and maintenance, and decommissioning. The second type of inter-related effect is receptor-led effects. Receptor-led effects are where effects from different environmental aspects combine spatially and temporally on a receptor. These effects may be short-term, temporary, transient, or longer-term.

Following the implementation of the embedded environmental measures, there are no significant inter-related effects on receptors considered within the ES. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapters, and it is not anticipated that project-lifetime inter-related effects of greater significance than those considered in isolation for each individual phase.



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# 30. Inter-related effects

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## 30.1 Introduction

- 30.1.1 This chapter of the Environmental Statement (ES) summarises the assessment of the likely significant effects of the Proposed Development with respect to inter-related effects as a result of the onshore and offshore aspects assessed (**Chapters 6: Coastal processes to 29: Climate change, Volume 2** of the ES (Document References: 6.2.6 to 6.2.29) on the same receptor (or group of receptors). It should be read in conjunction with the project description provided in **Chapter 4: The Proposed Development, Volume 2** of this ES (Document Reference: 6.2.4).
- 30.1.2 Inter-related effects could potentially arise in one of two ways. The first type of inter-related effect is a Proposed Development lifetime effect, where multiple phases of the Proposed Development interact to create a potentially more significant effect on a receptor than in one phase alone. The phases for Rampion 2 are construction, operation and maintenance, and decommissioning.
- 30.1.3 The second type of inter-related effect is receptor-led effects. Receptor-led effects are where effects from different environmental aspects combine spatially and temporally on a receptor. These effects may be short-term, temporary, transient, or longer-term.
- 30.1.4 This chapter describes:
- the legislation, planning policy and other documentation that has informed the assessment (**Section 30.2: Relevant legislation, planning policy, and other information and guidance**);
  - the outcome of consultation and engagement that has been undertaken to date (**Section 30.3: Consultation and engagement**);
  - the approach and methodology used for the inter-related assessment (**Section 30.4: Approach and methodology**);
  - the scope of the assessment for inter-related effects (**Section 30.5: Scope of the assessment**);
  - the assessment of inter-related effects (**Section 30.6: Assessment of effects**);
  - a summary of residual effects for inter-related effects (**Section 30.7: Summary of residual effects**);
  - a glossary of terms and abbreviations is provided in **Section 30.8: Glossary of terms and abbreviations**; and
  - a references list is provided in **Section 30.9: References**.

## 30.2 Relevant legislation, policy and other information and guidance

30.2.1 This section identifies the legislation, policy and other documentation that has informed the assessment of effects with respect to inter-related effects. Further information on policies relevant to the EIA and their status is provided in **Chapter 2: Policy and legislative context, Volume 2** (Document Reference: 6.2.2) of this ES.

### Legislation and national planning policy

30.2.2 **Table 30-1** lists the key legislation relevant to the assessment of inter-related effects.

**Table 30-1 Legislation relevant to inter-related effects**

Legislation description	Relevance to assessment
<b>Infrastructure Planning (Environmental Impact Assessment) Regulations 2017</b>	
<b>The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (collectively referred to as “the EIA Regulations 2017”) transpose the provisions of the EIA Directive (2014/52/EU, amending 2011/92/EU).</b>	<p>The EIA Regulations 2017 require that the effects of a project, where these are likely to have a significant effect on the environment, are taken into account in the decision-making process for that project.</p> <p>Regulation 5(2)(e) of EIA Regulations requires that the EIA must consider the interaction and inter-relation of different environmental effects of the Proposed Development on various aspects. This chapter details the consideration of these effects for Rampion 2.</p>

30.2.3 **Table 30-2** lists the national planning policy relevant to the assessment of inter-related effects.



**Table 30-2 National planning policy relevant to inter-related effects**

Policy description	Relevance to assessment
<b>Overarching National Policy Statement (NPS) for Energy (EN-1) (Department for Energy and Climate Change, 2011a)</b>	
<p><b>NPS EN-1 includes guidance on what matters are to be considered in the assessment of renewable energy projects.</b></p> <p>Paragraph 4.2.6 states that the ES should: <i>‘...consider how the accumulation of, and interrelationship between, effects might affect the environment, economy or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place.’</i></p>	<p>This chapter of the ES describes how Rampion 2 has considered inter-related effects.</p> <p>The scope of the inter-related effects assessment for Rampion 2 is outlined in <b>Section 30.5</b> and the inter-related effects assessment is presented in <b>Section 30.6</b> of this chapter.</p>
<p>30.2.4 The NPS for Renewable Energy Infrastructure (NPS EN-3, DECC, 2011b) or the NPS for Electricity Networks Infrastructure (NPS EN-5, DECC, 2011c) do not contain any policy relevant inter-related effects assessments.</p>	
<p>30.2.5 As part of the Government’s review of the suite of energy NPSs, the Department for Business, Energy &amp; Industrial Strategy (BEIS) published draft NPSs, including EN-1 (BEIS, 2021b), EN-3 (BEIS, 2021c) and EN-5 (BEIS, 2021d), that were the subject of consultation between September and November 2021. In March 2023, the Department for Energy Security &amp; Net Zero (DESNZ) published revised draft NPSs including EN-1 (DESNZ, 2023a), EN-3 (DESNZ, 2023b), and EN-5 (DESNZ, 2023c). The 2011 NPSs remain in force until the review is approved (designated) and under proposed transitional arrangements the 2023 amendments will only have effect in relation to applications for development consent accepted for examination after designation. However, the draft emerging NPSs can potentially be relevant planning considerations. Therefore, Rampion 2 has kept abreast of the potential changes to the energy NPSs and incorporated any updates where required in the ES.</p>	
<p>30.2.6 The Draft Overarching National Policy Statement for Energy (EN-1), (DESNZ, 2023a) is the only revised draft NPS relevant to the assessment of inter-related effects with <i>paragraph 4.2.19</i> (DESNZ, 2023a) reiterating <i>paragraph 4.2.6</i> from NPS EN-1 (DECC, 2011a).</p>	
<p>30.2.7 There are no emerging expectations or changes relevant to the assessment of the effects on inter-related effects from the current Overarching NPS EN-1 for Energy (DECC, 2011a) listed in <b>Table 30-1</b>.</p>	

## Local planning policy

- 30.2.8 The following local and regional planning authorities fall within the inter-related effects study area and due regard has been given to their local planning policies:
- Arun District Council;

- Horsham District Council;
- Mid Sussex District Council;
- South Downs National Park Authority; and
- West Sussex County Council.

## Other relevant information and guidance

30.2.9 A summary of other relevant information and guidance relevant to the assessment undertaken for inter-related effects is provided here:

- *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)* (European Commission 2017) aims to help developers and consultants produce good quality EIA reports. Section 1.4.3 highlights the need to consider interactions between the different environmental aspects in a single project. It recommends using interactive matrices that consider the interactions of impacts assessed individually.
- *Guideline for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions* (European Commission, 1999) sets out various tools that can be used for inter-related effects, guidance on the approach and assessment. Section 3 of the guidance outlines the tools that can be used for inter-related effects, which are: expert opinion, matrices, consultation and questionnaires, network and systems analysis and spatial analysis. These tools can be used in different combinations at different stages of the project. Section 7.7 of the guidance states the inter-related effects assessment can be within the individual aspect chapters (as in the Rampion 2 PEIR (RED, 2020)) or as its own standalone chapter (as in this ES). Section 7.3.1 of the guidance states where the assessment cannot be qualitative, a qualitative assessment can be carried out.
- *Cumulative Impact Assessment Guidelines: Guiding Principles For Cumulative Impacts Assessment in Offshore Wind Farms* (RenewableUK, 2013). The guidance considers cumulative effects and inter-related effects in relation to offshore wind farms. It emphasises the importance of assessing potentially significant impacts, rather than all possible impacts (RenewableUK, 2013, p.6). The guidance outlines eleven guiding principles to help inform assessments. The guiding principles include an emphasis on collaboration, transparency, sharing data, realistic assessments, proportionate assessments with an emphasis on key impacts and receptors, defining uncertainty and informing modelling.
- *Advice Note Nine: Rochdale Envelope* (PINS, 2018). The guidance explains the use of the Rochdale Envelope approach and addresses the use of the Rochdale Envelope applicable to EIA. The guidance note states: *ensure that the assessment of the worst case scenario(s) addresses impacts which may not be significant on their own but could become significant when they inter-relate with other impacts alone or cumulatively with impacts from other development (including those identified in other aspect assessments).*

### 30.3 Consultation and engagement

- 30.3.1 **Table 30-3** sets out the comments received in Section 1.1 of the Planning Inspectorate’s Scoping Opinion (Planning Inspectorate, 2020) relevant to the inter-related effects assessment and how these have been addressed in this ES. Full details of the Planning Inspectorate’s Scoping Opinion comments and responses is provided in **Appendix 5.2: Response to the Scoping Opinion, Volume 4** of the ES (Document Reference: 6.4.5.2). Regard has also been given to other stakeholder comments that were received in relation to the Scoping Report (Rampion Extension Development Limited (RED), 2020) and during the Statutory Consultation exercises for Rampion 2.

**Table 30-3 Planning Inspectorate’s Scoping Opinion responses – inter-related effects**

ID number	Scoping Opinion comment	How this is addressed in this ES
3.3.2	<p><i>General</i></p> <p>The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:</p> <ul style="list-style-type: none"> <li>• to demonstrate how the assessment has taken account of this Opinion;</li> <li>• to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;</li> <li>• to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a DCO requirement);</li> <li>• to describe any remedial measures that are identified as being necessary following monitoring; and</li> </ul>	<p>A standard chapter structure, including tables, has been applied throughout this ES to ensure clarity.</p> <p>Each chapter of the ES where relevant includes a table which sets out the Planning Inspectorate Scoping Opinion comments relevant to that chapter and how they have been addressed.</p> <p>Each aspect chapter includes a summary of residual effects table which sets out effects following mitigation (which is all embedded into the Rampion 2 design), a summary of all aspect chapters residual effects is provided in <b>Chapter 31: Summary, Volume 2</b> of the ES (Document Reference: 6.2.31). Each aspect chapter includes a cumulative effects assessment which sets out any cumulative effects from the Proposed Development in combination with other development. An inter-related effects assessment is provided in this chapter.</p> <p>Each aspect chapter includes a table of all relevant embedded environmental measures which are</p>

ID number	Scoping Opinion comment	How this is addressed in this ES
4.6.2	<p>Noise from cable laying, ground clearance, dredging etc during construction.</p> <p><i>“The Scoping Report seeks to scope out noise from these activities on the basis that noise impacts will be “low in terms of intensity and duration, with a very localised risk”, and that that risk is effectively contained within the assessment of ‘vessel disturbance’ activity (and ZOI defined in that respect). Without further reference to durations and methodologies of such activities in relation to vessel disturbance, and empirical evidence of the magnitudes of noise impacts from these activities when compared to vessel noise, the Inspectorate does not agree that they can be scoped out on the basis of the information provided. The Inspectorate also considers that there is the potential that noise generated from these activities could combine with vessel noise resulting in an overall larger impact and potentially more significant effect on marine mammals.”</i></p>	<p>embedded into the design and how they will be secured.</p> <p>The potential effects arising from underwater noise from these other, non-piling, sound sources have been assessed within <b>Sections 11.9 to 11.12 of Chapter 11: Marine mammals, Volume 2</b> of the ES (Document Reference: 6.2.11).</p> <p>The scope of the inter-related effects assessment for Rampion to is outlined in <b>Section 30.5</b> and the inter-related effects assessment is presented in <b>Section 30.6</b> of this chapter.</p>
4.9.2	<p>There is a high degree of overlap in the assessment of effects on offshore recreational users as set out in sections 5.3 (other marine users) section 5.10 (shipping and navigation) and section 5.15 (socioeconomics). The Inspectorate expects that these matters will be considered as part of the assessment(s) of inter-related effects as set out in paragraph 4.4.40 of the Scoping Report.</p>	<p>The effect on recreational users has been considered as an inter-related effect as part of the aspect chapter. The assessment of inter-related effects is provided in <b>Section 13.14, Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13).</p> <p>The socio-economic effect of Rampion 2 has been considered in <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17).</p>

ID number	Scoping Opinion comment	How this is addressed in this ES
		The scope of the inter-related effects assessment for Rampion to is outlined in <b>Section 30.5</b> and the inter-related effects assessment is presented in <b>Section 30.6</b> of this chapter.
5.3.5	The consideration of the potential impacts on agricultural land should also be assessed in the context of socio-economics, namely those financial effects on productive farmland and small holdings during construction, operation and decommissioning. With this in mind, the Inspectorate welcomes the acknowledgement of the inter-relationship between the socio-economic and soils/agriculture.	The assessment of effects of Rampion 2 on farming including financial effects is provided in <b>Section 20.9</b> in <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference: 6.2.20).  The scope of the inter-related effects assessment for Rampion to is outlined in <b>Section 30.5</b> and the inter-related effects assessment is presented in <b>Section 30.6</b> of this chapter.

## Statutory Consultation exercises

First Statutory Consultation exercise – July to September 2021

- 30.3.2 Rampion 2's first Statutory Consultation exercise ran from 14 July to 16 September 2021, a period of nine weeks. The Preliminary Environmental Information Report (PEIR) (RED, 2021) was published as part of Rampion 2's first Statutory Consultation exercise which provided preliminary information on ground conditions within each aspect chapter.
- 30.3.3 **Table 30-4** provides a summary of the key themes of the feedback received in the first Statutory Consultation exercise in 2021 in relation to inter-related effects assessment and outlines how the feedback has been considered in this ES chapter.

**Table 30-4 First Statutory Consultation exercise (July – September 2021) feedback**

Stakeholder	Theme	How this is addressed in this ES
<b>Multiple stakeholders including (but not restricted to) MMO and</b>	Given the preliminary stage of the application, stakeholders agreed that there was not sufficient detail in the PEIR to provide a full assessment of inter-related effects and agreed that this should be	The assessment of inter-related effects has built on the information provided in the PEIR (RED, 2021) and is presented in in <b>Section 30.6</b> of this chapter.

Stakeholder	Theme	How this is addressed in this ES
Natural England	provided in the Environmental Statement.	

30.3.4 Following feedback to the first Statutory Consultation exercise in 2021 and after further analysis, it was identified that some coastal residents did not receive consultation leaflets as intended. Therefore, the first Statutory Consultation was reopened between 7 February 2022 to 11 April 2022 for a further nine weeks. No feedback or comments were received from the reopened First Statutory consultation in relation to inter-related effects assessment.

#### Second Statutory Consultation exercise – October to November 2022

30.3.5 The second Statutory Consultation exercise was undertaken from 18 October 2022 to 29 November 2022. This was a targeted consultation which focused on updates to the onshore cable route proposals which were being considered following feedback from consultation and further engineering and environmental works. As part of this second Statutory Consultation exercise, RED sought feedback on the potential changes to the onshore cable route proposals to inform the onshore design taken forward to DCO application. There were no comments/key themes pertaining to the inter-related effects assessment that emerged from the second Statutory Consultation exercise.

#### Third Statutory Consultation exercise – February to March 2023

30.3.6 The third Statutory Consultation exercise was undertaken from 24 February 2023 to 27 March 2023. This was a targeted consultation which focused on a further single onshore cable route alternative being considered following feedback from consultation and further engineering and environmental works. As part of this third Statutory Consultation exercise, RED sought feedback on the potential changes to the onshore cable route proposals to inform the onshore design taken forward to DCO Application. There were no comments/key themes pertaining to the inter-related effects assessment that emerged from the third Statutory Consultation exercise.

#### Fourth Statutory Consultation exercise – April to May 2023

30.3.7 The fourth Statutory Consultation exercise was undertaken from 28 April 2023 to 30 May 2023. This was a targeted consultation which focused on the proposed extension works to the existing National Grid Bolney substation to facilitate the connection of the Rampion 2 onshore cable route into the national grid electricity infrastructure. As part of this fourth Statutory Consultation exercise, RED sought feedback on the proposed substation extension works to inform the onshore design taken forward to the DCO Application. There were no comments/key themes pertaining to the inter-related effects assessment that emerged from the fourth Statutory Consultation exercise.

30.3.8 Further detail about the results of the Statutory Consultation exercises can be found in the [Consultation Report](#) (Document Reference: 5.1).

## 30.4 Approach and methodology

### Overview

- 30.4.1 This section sets out the approach and methodology for inter-related effects assessment. This scope has been developed as Rampion 2 design has evolved and responds to feedback received to date as set out in **Section 30.3** and feedback received from the Statutory Consultation exercises. The assessment of inter-related effects considers only those effects of Rampion 2 and not from other projects (these are considered within the cumulative effects assessment provided within the aspect chapters (**Chapters 6: Coastal processes to 29: Climate change, Volume 2** of the ES (Document References: 6.2.6 to 6.2.29)).
- 30.4.2 Inter-related effects can be categorised into two types of effects:
- **Project-lifetime effects:** Assessment of the scope for effects that occur throughout more than one phase of the project (i.e. construction, operation and maintenance, decommissioning), to interact to potentially create an effect of greater significance than if assessed just within individual/isolated project phases.
  - **Receptor-led effects:** Assessment of the scope for all effects to interact, spatially and temporally, to create an effect on a receptor of greater significance than when the effects are considered in isolation. Receptor-led effects may be short term, temporary or transient effects, or incorporate longer term effects.
- 30.4.3 Therefore, to undertake the inter-related effects assessment the findings of the individual aspect chapters have been incorporated to understand and interpret the potential additional effects that may be of greater significance when compared to individual effects acting on a single receptor (or group). Where additional effects are identified, these are considered, these are considered additively and qualitatively using expert judgement. The proposed approach is summarised in the following steps. For each EIA topic chapter:
- 1 Review and identification of relevant receptors from assessments undertaken for each aspect chapter.
  - 2 Source-pathway-receptors identification for the potential inter-related effect receptors and where those pathways are described and assessed. This process involves cross referencing to all aspect chapters and the impacts assessed to understand if the aspect(s) has inherently assessed the potential effect and reported within the aspect chapter(s). This process also determines whether there is potential for project-lifetime inter-cumulative effects from the same impact across the project phases.
  - 3 Production of a tabulated inter-related effects assessment within this chapter for both project-lifetime and receptor-led effects.
- 30.4.4 There is the potential for inter-related effects to occur where effects that have a significance of negligible or higher (as reported in the aspect chapters) occur, and interactions between these effects that could cause an impact to any step of the

source-receptor-pathway model. These have then been considered through expert judgement in this chapter. Where effects that represent no change to the baseline (i.e. no impact) occur, these are unlikely to have inter-related effects when combined with other impacts and have been scoped out of the inter-related effects assessment.

- 30.4.5 For project-lifetime effects to occur an impact of negligible or higher is required over sequential project phases, if an effect only occurs over one project phase (e.g. only during the construction phase) there is no potential for interaction with effects of the same nature over multiple project phases and can therefore be scoped out of the assessment. Where effects occur in the construction and decommissioning phases (but not the operation and maintenance phase), these are considered to be isolated and recovery between the two phases is expected. Therefore, it is not considered that there is potential for a project-lifetime inter-related effect and can be scoped out of the assessment.
- 30.4.6 The EIA process takes a holistic approach to ensuring environmental assessments are comprehensive and assess all relevant potentially significant effects upon all relevant receptors. As a result of this, some elements of the aspect assessments provided in **Chapters 6: Coastal processes to 29: Climate change, Volume 2** of the ES (Document References: 6.2.6 to 6.2.29) inherently consider inter-related effects. For example, increased traffic movements (assessed in **Chapter 6: Coastal processes, Volume 2** of this ES (Document Reference: 6.2.6) representing a potential impact pathway for air quality receptors (assessed in **Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2** of this ES (Document Reference: 6.2.9). Where these potential inter-related effects are identified as being inherently considered in the impact assessment, this is described within the individual topic chapters.

## Spatial scope and Study Area

- 30.4.7 The spatial Study Area is dependent on each receptor. To have a potential inter-related effect a receptor or receptor group must be within the Study Area of more than one environmental aspect. The spatial scope of the inter-related effects assessment is based on the aspect spatial study areas outlined in **Chapters 6: Coastal processes to 29: Climate change, Volume 2** of the ES (Document References: 6.2.6 to 6.2.29). These spatial Study Areas have been informed through desk study and engagement with stakeholders throughout the pre-application stage of the DCO Application.
- 30.4.8 An illustrative example of this is described in **Graphic 30-1**; in the graphic, only the green receptors have the potential to experience inter-related effects as they are within the Study Area for environmental aspect 1 and environmental aspect 2.



**Graphic 30-1 Illustrative example of the spatial scope and study area for an example receptor**



## Temporal scope

30.4.9 The temporal scope of the assessment of inter-related effects is the entire lifetime of Rampion 2, which therefore covers the construction, operation and maintenance, and decommissioning periods. A summary of the temporal scope of the Proposed Development is as follows:

- the anticipated maximum total construction duration is approximately four years;
- the operation and maintenance phase will commence after the construction phase is complete. The operational lifetime of the Proposed Development is expected to be around 30 years; and
- decommissioning will take place after the operation and maintenance phase of the Proposed Development. It is anticipated that decommissioning will generally be a reverse of the construction phase, so may take up to four years.

30.4.10 For the purposes of this inter-related effects assessment, each of these phases will be treated as an entire period, rather than assessing individual years within the phases.

30.4.11 Full details of the temporal scope of the Proposed Development can be found in [Chapter 4: The Proposed Development, Volume 2](#) of the ES (Document Reference: 6.2.4).

## 30.5 Inter-related effects assessment scope

30.5.1 As discussed in [paragraph 30.4.6](#), EIA follows a holistic approach that ensures a comprehensive environmental assessment is undertaken and many aspect chapters address elements of inter-related effects by the nature of their assessment.

- 30.5.2 Therefore, this chapter provides a summary of how inter-related effects have been considered within the aspect chapters (**Chapters 6: Coastal processes to 29: Climate change, Volume 2** of the ES (Document References: 6.2.6 to 6.2.29)), and also provides further detail of how effects may give rise to additional inter-related effects. Potential effects that have been scoped out of the aspect assessments and the EIA are not considered in this chapter.
- 30.5.3 **Table 30-5** outlines the aspects that are excluded from the inter-related effects assessment and the reasoning for this.

**Table 30-5 Inter-related effects aspect scope**

Aspect	Reasoning
<b>Coastal process</b>	<p>The coastal processes assessments inherently consider inter-related effects within the range of parameters and impact types set out within <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6), with the assessments presenting information on what essentially comprise impact pathways for other topics (for example increased suspended sediment concentration and deposition representing a potential impact pathway for benthic ecology receptors). Therefore, information from the coastal processes assessment has been used to inform other aspect chapters such as <b>Chapter 7: Other marine users, Volume 2</b> of the ES (Document Reference: 6.2.7), <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8), <b>Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</b> of the ES (Document Reference: 6.2.9), <b>Chapter 12: Offshore ornithology, Volume 2</b> of the ES (Document Reference: 6.2.12). These chapters have considered the inter-related effects between coastal processes and receptors identified within their assessment. As such, there are no further receptor-led inter-related effects identified and so are not considered further in this chapter.</p> <p>The project-lifetime inter-related effects assessment for coastal processes is considered further and the assessment is presented in <b>Table 30-6</b>.</p>
<b>Other marine users</b>	<p>The assessment of potential effects for other marine users inherently considered the inter-relationships between biological and human receptors as presented in <b>Chapter 7: Other marine users, Volume 2</b> of the ES (Document Reference: 6.2.7). The assessment considers changes to coastal process (outlined in <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6)) that have the potential to directly and/or indirectly impact other marine user receptors; potential impacts on recreational fishing drawing on information from <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8) and <b>Chapter 10: Commercial fisheries, Volume 2</b> of the ES (Document Reference: 6.2.10). The assessment also considered impacts to other human receptors such as marine aggregates, disposal sites, offshore wind, military activity, subsea</p>

Aspect	Reasoning
	<p>cables, recreational boating and sailing, diving, and water sports through reference of <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13), <b>Chapter 14: Civil and military aviation, Volume 2</b> of the ES (Document Reference: 6.2.14), <b>Chapter 16: Marine archaeology, Volume 2</b> of the ES (Document Reference: 6.2.16), <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17). Therefore, receptor-led inter-relationships on other marine users are not considered further in this chapter.</p> <p>The project-lifetime inter-related effects assessment for other marine users is considered further and the assessment is presented in <b>Table 30-7</b>.</p>
<b>Fish and shellfish ecology</b>	<p>Receptor-led effects have been considered where relevant in <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8) for potential interactions with <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6) and <b>Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</b> of the ES (Document Reference: 6.2.9), where relevant. Therefore, receptor-led inter-relationships on commercial fisheries are not considered further in this chapter.</p> <p>The project-lifetime inter-related effects assessment for fish and shellfish is considered further and the assessment is presented in <b>Table 30-8</b>.</p>
<b>Benthic, subtidal and intertidal ecology</b>	<p>Receptor-led effects have been considered where relevant in <b>Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</b> of the ES (Document Reference: 6.2.9) for potential interactions namely the inter-related effect from changes to coastal process that could subsequently have the potential to impact fish and shellfish ecology receptors or habitats; the close association between key benthos and subtidal habitats for fish and shellfish species; as fish and shellfish species of commercial importance are also relevant to the assessment of fish and shellfish ecology; and details on the modelled underwater noise levels arising from the Proposed Development with <b>Chapter 6: Coastal Processes, Volume 2</b> of the ES (Document Reference: 6.2.6), <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8), <b>Chapter 10: Commercial fisheries, Volume 2</b> of the ES (Document Reference: 6.2.10), and <b>Appendix 11.2: Underwater noise assessment report, Volume 4</b> of the ES (Document Reference 6.4.11.2), where relevant. Therefore, receptor-led inter-relationships on commercial fisheries are not considered further in this chapter.</p> <p>The project-lifetime inter-related effects assessment for benthic, subtidal and intertidal ecology is considered further and the assessment is presented in <b>Table 30-9</b>.</p>

Aspect	Reasoning
<b>Commercial fisheries</b>	<p>The assessment of potential effects for commercial fisheries inherently considered the receptor-led inter-related effects as presented in <b>Chapter 10: Commercial fisheries, Volume 2</b> of the ES (Document Reference: 6.2.10) for potential interactions, namely the inter-related effect from the combination of the reduction in access to fishing grounds and the subsequent increased pressure on adjacent grounds, with <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8) and <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13), where relevant. Therefore, receptor-led inter-relationships on commercial fisheries are not considered further in this chapter.</p> <p>During the construction and decommissioning phases, both effects will be temporary and short lived, with access to fishing grounds being prevented where construction and decommissioning activity is taking place. During operation the effects will differ depending on the receptors affected. Mobile fishing fleets may access specific grounds within the array area or move to other fishing areas in the English Channel, which could put them into conflict with static gear (i.e. potting) fleets operating closer to shore and along the offshore cable corridor. As a result, the static fleets will be subjected to potential increases in pressure on their grounds. While the two effects may act together, it is considered that appropriately mitigated loss of access will limit the impact of displacement and that therefore, overall, any inter-related effect will not be of any greater significance than those already assessed in isolation. Therefore, project-lifetime inter-relationships on commercial fisheries are not considered further in this chapter.</p>
<b>Marine mammals</b>	<p>The assessment of potential effects for marine mammals inherently considered the receptor-led inter-related effects as presented in <b>Chapter 11: Marine mammals, Volume 2</b> of the ES (Document Reference: 6.2.11) for potential interactions with <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8), <b>Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</b> of the ES (Document Reference: 6.2.9), and <b>Chapter 12: Offshore and intertidal ornithology, Volume 2</b> of the ES (Document Reference: 6.2.12), where relevant, and are given further consideration in <b>Table 30-10</b>.</p> <p>The project-lifetime inter-related effects assessment for marine mammals is considered further and the assessment is presented in <b>Table 30-11</b>.</p>
<b>Offshore and intertidal ornithology</b>	<p>The assessment of potential effects for offshore and intertidal ornithology inherently considered the receptor-led inter-related effects as presented in <b>Chapter 12: Offshore and intertidal ornithology, Volume 2</b> of the ES (Document Reference: 6.2.12) for potential</p>

Aspect	Reasoning
	<p>interactions, namely the combination indirect impacts through effects on habitats and prey during construction (offshore cable corridor, array area), operation and maintenance, and decommissioning, with <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8), <b>Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</b> of the ES (Document Reference: 6.2.9), and <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), where relevant. Therefore, receptor-led inter-relationships on commercial fisheries are not considered further in this chapter.</p> <p>The project-lifetime inter-related effects assessment for offshore and intertidal ornithology is considered further and the assessment is presented in <b>Table 30-12</b>.</p>
<b>Shipping and navigation</b>	<p>The assessment of potential effects for shipping and navigation inherently considered the receptor-led inter-related effects as presented in <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13) and <b>Appendix 13.1 Navigational risk assessment, Volume 4</b> of the ES (Document Reference: 6.4.13.1) for potential interactions, namely a safety of navigational perspective and emergency response to marine incident, with <b>Chapter 7: Other marine users, Volume 2</b> of the ES (Document Reference: 6.2.7), <b>Chapter 10: Commercial fisheries, Volume 2</b> of the ES (Document Reference: 6.2.10), <b>Chapter 14: Civil and military aviation, Volume 2</b> of the ES (Document Reference: 6.2.14), and <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17), where relevant. Therefore, receptor-led inter-relationships on shipping and navigation are not considered further in this chapter.</p> <p>The project-lifetime inter-related effects assessment for shipping and navigation is considered further and the assessment is presented in <b>Table 30-13</b>.</p>
<b>Civil and military aviation</b>	<p>The assessment of potential effects for civil and military aviation inherently considered the receptor-led inter-related effects as presented in <b>Chapter 14: Civil and military aviation, Volume 2</b> of the ES (Document Reference: 6.2.14) for potential interactions, namely considers the greatest potential for inter-related effects occur due to the creation of aviation obstacles, with <b>Chapter 7: Other marine users, Volume 2</b> of the ES (Document Reference: 6.2.7), <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13), and <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference: 6.2.15), where relevant.</p>

Aspect	Reasoning
	<p>Aviation lighting fitted to offshore wind turbine generators (WTGs) could cause confusion to the maritime community as the specification for the lighting to be displayed below the horizontal plane of the light fitment itself and this could mean that it is indistinguishable from maritime lighting. As a result, the conflicting warning lighting on the WTGs could potentially cause confusion to maritime surface vessels, which in turn could lead to a potential collision risk. Effects of aviation lighting is considered as an inter-related effect in <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13) and <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference: 6.2.15).</p> <p>Work has been undertaken to develop an aviation warning lighting standard where, from the nature of the lighting, it will be apparent to mariners that the aviation lighting is clearly distinguishable from maritime lighting. Where it is evident that the default aviation warning lighting standard may generate issues for the maritime community a developer can make a case, that is likely to receive Civil Aviation Authority approval, for the use of a flashing red Morse Code Letter 'W' instead (see Civil Aviation Publication (CAP) 764 paragraph 3.16 (CAA, 2016)). Therefore, receptor-led inter-relationships on shipping and navigation are not considered further in this chapter.</p> <p>The civil and military aviation effects arising as a result of the Proposed Development throughout the project lifetime (construction, operation and maintenance, and decommissioning) are assessed as being of the same magnitude and significance, on all receptors. Differing primarily with the effects being short-term and temporary during the construction and decommissioning phases. The project-lifetime effects on civil and military aviation are not anticipated to result in inter-related effects of greater significance than the assessments conclude for each phase in isolation. Therefore, project-lifetime inter-relationships on civil and military aviation are not considered further in this chapter.</p>
<b>Seascape, landscape, and visual impact assessment (SLVIA)</b>	<p>The assessment of potential effects for SLVIA inherently considered the receptor-led inter-related effects as presented in <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference: 6.2.15) for potential interactions, namely considers inter-relationship between onshore landscape and visual effects and cultural heritage impact, with <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference: 6.2.18) and <b>Chapter 25: Historic environment, Volume 2</b> of the ES (Document Reference: 6.2.25), where relevant.</p> <p>In the SLVIA, these inter-related effects are considered to be receptor-led effects, where specific receptors may be affected by both the construction and operation of the offshore infrastructure (including wind farm site, offshore platforms, offshore cable corridor) and the</p>

Aspect	Reasoning
	<p>construction and operation of the onshore infrastructure (i.e. onshore substation, onshore cable corridor, landfall location and National Grid infrastructure). There is potential for effects to interact, spatially and temporally, to create inter-related effects on a receptor.</p> <p>An assessment of significant inter-related effects has also been undertaken in <b>Table 30-14</b> below to assess any areas where the construction and operation of the offshore elements and the construction and operation of the onshore infrastructure combine, or inter-relate, to have an effect. For example, visibility of the offshore elements of Rampion 2 and the onshore substation or landfall, from a particular viewpoint or landscape designation, may interact to produce a different, or greater effect on a receptor than when the effects are considered in isolation. No inter-related seascape effects have been identified since the construction and operation of the onshore infrastructure will not affect the character of offshore Marine Character Areas (MCAs) or Seascape Character Types (SCTs). These receptors will be affected only by the offshore elements of Rampion 2 in isolation. Therefore, receptor-led inter-relationships on landscape and visual impacts are given further consideration in <b>Table 30-14</b>. Due to the interdependencies between the SLVIA and LVIA receptor-led inter-related effects, these have been considered together.</p> <p>The SLVIA effects arising as a result of the Proposed Development throughout the project lifetime (construction, operation and maintenance, and decommissioning) are assessed as being of the same magnitude, significance, and effect on all SLVIA receptors. Differing primarily with the effects being short-term and temporary during the construction and decommissioning phases. There may also be some variation in appearance of the construction / decommissioning activities, compared to the operation and maintenance phase, mainly due the influence of offshore construction / decommissioning vessels and partial WTG presence (i.e. as each WTG is erected progressively during construction, and taken down during decommissioning) that will not be present during the operation and maintenance phase. Therefore, project-lifetime inter-relationships on SLVIA are not considered further in this chapter.</p>
<b>Marine archaeology</b>	<p>The assessment of potential effects for marine archaeology inherently considered the receptor-led inter-related effects as presented in <b>Chapter 16: Marine archaeology, Volume 2</b> of the ES (Document Reference: 6.2.16) for potential interactions, namely considers inter-relationship between geological aspects relevant to pre-history, Historic Seascape Characterisation, and overlapping study areas in the inter-tidal zone, with <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6), <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference:</p>

Aspect	Reasoning
	<p>6.2.15), and <b>Chapter 25: Historic environment, Volume 2</b> of the ES (Document Reference: 6.2.25), where relevant.</p> <p>The inter-related assessment provided in <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6) concludes that there is limited potential for inter-related effects to arise from coastal processes (changes to seabed sediment transportation, deposition, and scour), which are therefore unlikely to affect marine heritage receptors as sediment transport and scour is mostly localised to the areas around seabed structures. Therefore, receptor-led inter-relationships on marine archaeology are not considered further in this chapter.</p> <p>Impact of the independent stages of activities during the construction, operation and maintenance and decommissioning phases will, have been assessed and presented in <b>Sections 16.9 to 16.12 in Chapter 16: Marine archaeology, Volume 2</b> of the ES (Document Reference: 6.2.16), be of negligible magnitude. It is therefore not anticipated that any project-lifetime inter-related effects will occur that are of any greater significance compared to the impacts considered alone, meaning that the significance of effect is therefore not significant. Therefore, project-lifetime inter-relationships on civil and military aviation are not considered further in this chapter.</p>
<p><b>Socio-economics</b></p>	<p>The assessment of potential effects for socio-economics inherently considered the receptor-led inter-related effects as presented in <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17) for potential interactions, namely considers inter-relationship between recreation, onshore and offshore viewpoints, and the visitor economy with <b>Chapter 7: Other marine users, Volume 2</b> of the ES (Document Reference: 6.2.7), <b>Chapter 10: Commercial fisheries, Volume 2</b> of the ES (Document Reference: 6.2.10), <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13), <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference: 6.2.15), <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference: 6.2.18), <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21), and <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), where relevant. These chapter have considered the inter-related effects between socio-economics, and receptors identified within the assessment. As such, there are no further receptor-led inter-related effects identified and so are not considered further in this chapter.</p> <p>The potential for project-lifetime inter-related effects socio-economics is inherently considered in <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference 6.2.17). No significant inter-related effects of greater significance compared to the effects considered alone were</p>



Aspect	Reasoning
<b>Landscape and visual impact (LVIA)</b>	<p>identified for socio-economic receptors during the construction, operation and maintenance, and decommissioning phases of the Proposed Development. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p> <p>The assessment of potential effects for LVIA inherently considered the receptor-led inter-related effects as presented in <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference: 6.2.18) for potential interactions, namely considers inter-relationship between the close association between the onshore and offshore elements of the Proposed Development on LVIA and SLVIA; visual effects on recreational receptors and visitor attractions; visible during construction from preparation site clearance, earthworks; visual effects and noise on several visual receptors; landscape habitats and effects on landscape elements (including trees hedges and woodland) and visual effects on nature reserves which may also be visitor attractions; the close association on recreational routes including Public Rights of Way (PRoW); and heritage features which may also be landmarks and visitor attractions, with <b>Chapter 15: Seascape, landscape and visual impacts assessment, Volume 2</b> of the ES (Document Reference: 6.2.15), <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17), <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference: 6.2.20), <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21), <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), and <b>Chapter 25: Historic environment, Volume 2</b> of the ES (Document Reference: 6.2.25), where relevant.</p> <p>In <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference: 6.2.18), these inter-related effects are considered to be receptor-led effects, where specific receptors may be affected by both the construction and operation of the onshore infrastructure (i.e. onshore substation, onshore cable corridor, landfall location and National Grid infrastructure), and the construction and operation of the offshore infrastructure (including wind farm site, offshore platforms, offshore cable corridor). There is potential for effects to interact, spatially and temporally, to create inter-related effects on a receptor.</p> <p>An assessment of significant inter-related effects has also been undertaken in <b>Table 30-14</b> below to assess any areas where the construction and operation of the offshore elements and the construction and operation of the onshore infrastructure combine, or inter-relate, to have an effect. For example, visibility of the offshore elements of Rampion 2 and the onshore substation or landfall, from a particular</p>

Aspect	Reasoning
	<p>viewpoint or landscape designation, may interact to produce a different, or greater effect on a receptor than when the effects are considered in isolation. No inter-related seascape effects have been identified since the construction and operation of the onshore infrastructure will not affect the character of offshore MCAs or SCTs. These receptors will be affected only by the offshore elements of Rampion 2 in isolation. Therefore, receptor-led inter-relationships on landscape and visual impacts are given further consideration in <b>Table 30-14</b>. Due to the interdependencies between the SLVIA and LVIA receptor-led inter-related effects, these have been considered together.</p> <p>The Landscape and visual impact effects arising as a result of the Proposed Development throughout the project lifetime (construction, operation and maintenance, and decommissioning) are assessed as being of the same magnitude, significance, and effect on all landscape and visual impact receptors. Differing primarily with the effects being short-term and temporary during the construction and decommissioning phases. There may also be some variation in appearance of the construction / decommissioning activities, compared to the operation and maintenance phase, mainly due the influence of onshore construction / decommissioning of the cable route and substations, and offshore construction / decommissioning vessels and partial WTG presence (i.e. as each WTG is erected progressively during construction, and taken down during decommissioning) that will not be present during the operation and maintenance phase. Therefore, project-lifetime inter-relationships on LVIA are not considered further in this chapter.</p>
<p><b>Air quality</b></p>	<p>The assessment of potential effects for air quality inherently considered the receptor-led inter-related effects as presented in <b>Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference 6.2.19) for potential interactions, namely considers inter-relationship between air quality effects on designated ecological sites, and from construction traffic with <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), and <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), where relevant, and are given further consideration in <b>Table 30-15</b>.</p> <p>The operational and maintenance phase impacts have been scoped out of the assessment of air quality (see <b>Table 19-13, Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference 6.2.19)). Where effects could occur during the construction and decommissioning phases these are considered to be isolated and recovery between the two phases is expected. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p>

Aspect	Reasoning
<b>Soils and agriculture</b>	<p>The assessment of potential effects for soils and agriculture inherently considered the receptor-led inter-related effects as presented in <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference 6.2.20) for potential interactions, namely considers inter-relationship between designated ecological sites, land contamination, soil compaction and erosion with <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26), where relevant, and are given further consideration in <b>Table 30-16</b>.</p> <p>The overall financial effects of the Proposed Development on farms and farm businesses are assessed in <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference 6.2.20). The Proposed Development has no significant effects on the farming economy. There are a range of mitigations available in the local area due to the large markets and potential for substitutability. The farming assessment undertaken inherently assesses the inter-related effect. The inter-related effects between the soils and agriculture, and socio-economics are inherently considered as part of the farming assessment. Therefore, the financial effects on productive farmland and small holdings inter-related effects are not given further consideration in this chapter.</p> <p>The operational and maintenance, and decommissioning phase impacts have been scoped out of the assessment of soils and agriculture (see <b>Table 20-3, Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference 6.2.20)). Where effects could occur during the construction phase these are considered to be isolated. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p>
<b>Noise and vibration</b>	<p>The assessment of potential effects for noise and vibration inherently considered the receptor-led inter-related effects as presented in <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference 6.2.21) for potential interactions, namely considers inter-relationship between underwater noise effects, offshore ornithology, tranquility, ecological receptors, and traffic flows with <b>Chapter 11: Marine mammals, Volume 2</b> of the ES (Document Reference: 6.2.11), <b>Chapter 12: Offshore and intertidal ornithology, Volume 2</b> of the ES (Document Reference: 6.2.12), <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference: 6.2.18), <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), <b>Chapter 25: Historic environment, Volume 2</b> of the ES (Document Reference: 6.2.25), where relevant, and are given further consideration in <b>Table 30-17</b>.</p>

Aspect	Reasoning
<b>Terrestrial ecology and nature conservation</b>	<p>Due to the phasing and linear progression of the works, the worst-case noise from access construction and use, temporary compound construction and use, cable trenching and HDD will not occur at the same time. There will be receptors that will experience noise for longer durations as a result of the combination of all these works. However, the construction sites which will experience noise effects for more than 1-2 months are sufficiently distant from one another such that the temporal effect will not be accentuated. Due to the distance between, the onshore substation and the offshore wind farm, there will be no inter-related effect from the operation and maintenance phase of the Proposed Development. On the basis that cables will be left in situ, it is not likely that there will be inter-related effects during decommissioning. Vibration effects become negligible at relatively short distances from sources (&lt;100m), therefore, no inter-related effects will be likely between the different work activities. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p> <p>The assessment of potential effects for terrestrial ecology and nature conservation inherently considered the receptor-led inter-related effects as presented in <b>Chapter 22: Terrestrial and nature conservation, Volume 2</b> of the ES (Document Reference 6.2.22) for potential interactions, namely considers inter-relationship between intersections of habitats at Mean High Water Springs (MHWS), bird species in the marine/intertidal/terrestrial habitats, emissions and dust, overlap of priority habitats, disturbance of fauna from noise and vibration, designated sites, and the close association between ecological features and hydrology with <b>Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</b> of the ES (Document Reference: 6.2.9), <b>Chapter 12: Offshore and intertidal ornithology, Volume 2</b> of the ES (Document Reference: 6.2.12), <b>Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference: 6.2.19), <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference: 6.2.20), <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21), <b>Chapter 24: Ground conditions, Volume 2</b> of the ES (Document Reference: 6.2.24), and <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26), where relevant. These chapter have considered the inter-related effects between terrestrial ecology and nature conservation, and receptors identified within the assessment. As such, there are no further receptor-led inter-related effects identified and so are not considered further in this chapter.</p> <p>The approach taken for the terrestrial ecology and nature conservation assessment has been to consider the potential effects on ecological features, as opposed to the outcomes of individual actions during the construction, operation and maintenance, and decommissioning phases. Therefore, project-lifetime inter-relationships on terrestrial ecology and</p>

Aspect	Reasoning
	<p>nature conservation have been considered in <b>Chapter 22: Terrestrial and nature conservation, Volume 2</b> of the ES (Document Reference 6.2.22) are not considered further in this chapter.</p>
<b>Transport</b>	<p>The assessment of potential effects for transport inherently considered the receptor-led inter-related effects as presented in <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23) for potential interactions, namely considers inter-relationship between onshore effects of offshore works, impacts on Public Right of Ways (PRoW), and traffic flows with <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13), <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17), <b>Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference: 6.2.19), and <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21), where relevant, and are given further consideration in <b>Table 30-18</b>.</p> <p>The project-lifetime inter-related effects assessment for transport is considered further and the assessment is presented in <b>Table 30-19</b>.</p>
<b>Ground conditions</b>	<p>The assessment of potential effects for ground conditions inherently considered the receptor-led inter-related effects as presented in <b>Chapter 24: Ground conditions, Volume 2</b> of the ES (Document Reference: 6.2.24) for potential interactions, namely considers inter-relationship between soils receptors and structure, designated sites, groundwater and surface water flows with <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference: 6.2.20), <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), and <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26), where relevant, and are given further consideration in <b>Table 30-20</b>.</p> <p>The potential for project-lifetime inter-related effects on ground conditions are inherently considered in <b>Chapter 24: Ground conditions, Volume 2</b> of the ES (Document Reference: 6.2.24). No significant inter-related effects of greater significance compared to the effects considered alone were identified for ground conditions receptors during the construction, operation and maintenance, and decommissioning phases of the Proposed Development. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p>
<b>Historic environment</b>	<p>The assessment of potential effects for the historic environment inherently considered the receptor-led inter-related effects as presented in <b>Chapter 25: Historic environment, Volume 2</b> of the ES (Document Reference 6.2.25) for potential interactions, namely considers inter-relationship between coastal processes, historic setting, the interface</p>

Aspect	Reasoning
	<p>between onshore and marine historic environments, the visual relationship between historic landscape and landscape features with <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6), <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference: 6.2.15), <b>Chapter 16: Marine archaeology, Volume 2</b> of the ES (Document Reference: 6.2.16), <b>Chapter 18: Landscape and visual assessment, Volume 2</b> of the ES (Document Reference: 6.2.18), <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21), <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), and <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26) where relevant. These chapter have considered the inter-related effects between the historic environment, and receptors identified within the assessment. As such, there are no further receptor-led inter-related effects identified and so are not considered further in this chapter.</p> <p>The potential for project-lifetime inter-related effects on the historic environment are inherently considered in <b>Chapter 25: Historic environment, Volume 2</b> of the ES (Document Reference 6.2.25). No significant inter-related effects of greater significance compared to the effects considered alone were identified for historic receptors during the construction, operation and maintenance, and decommissioning phases of the Proposed Development. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p>
<b>Water environment</b>	<p>The assessment of potential effects for the water environment inherently considered the receptor-led inter-related effects as presented in <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26) for potential interactions, namely considers inter-relationship between coastal morphology, offshore conservation sites, recreational use of bathing waters, water dependant ecological features, and potential contaminants present on site with <b>Chapter 6: Coastal processes, Volume 2</b> of the ES (Document Reference: 6.2.6), <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference: 6.2.8), <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17), <b>Chapter 22: Terrestrial ecology and nature conservation, Volume 2</b> of the ES (Document Reference: 6.2.22), and <b>Chapter 24: Ground conditions, Volume 2</b> of the ES (Document Reference: 6.2.24), where relevant, and are given further consideration in <b>Table 30-21</b>.</p> <p>The potential for project-lifetime inter-related effects on the water environment are inherently considered in <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26). No significant inter-related effects of greater significance compared to the effects considered alone were identified for water environment receptors</p>

Aspect	Reasoning
<b>Major accidents and disasters</b>	<p>during the construction, operation and maintenance, and decommissioning phases of the Proposed Development. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p> <p>The Scoping Report (RED, 2020) proposed to scope out major accidents and disasters on the basis that they were adequately controlled. The Planning Inspectorate requested that a description of any likely significant effects resulting from major accidents and disasters is included in the ES. The information provided in <b>Chapter 27: Major accidents and disasters, Volume 2</b> of this ES (Document Reference: 6.2.27) is intended to demonstrate that the risk of major accidents and disasters will be managed and reduced through the application of embedded environmental measures to ensure there are no significant effects as the result of the Proposed Development.</p> <p>The major accidents and disasters assessment inherently considers inter-related effects within the range of parameters and impact types either within the chapter or in the aspect chapters (including: <b>Chapter 7: Other marine users, Volume 2</b> of the ES (Document Reference: 6.2.7), <b>Chapter 13: Shipping and navigation, Volume 2</b> of the ES (Document Reference: 6.2.13), <b>Chapter 14: Civil and military aviation, Volume 2</b> of the ES (Document Reference: 6.2.14), <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference: 6.2.26), <b>Chapter 28: Population and human health, Volume 2</b> of the ES (Document Reference: 6.2.28), and <b>Chapter 29: Climate change, Volume 2</b> of the ES (Document Reference: 6.2.29). Therefore, the assessment of major accidents and disasters have considered the project-lifetime and receptor-led inter-related effects inherently, and so are not considered further in this chapter.</p>
<b>Population and human health</b>	<p>The assessment of potential effects for population and human health inherently considered the receptor-led inter-related effects as presented in <b>Chapter 28: Population and human health, Volume 2</b> of the ES (Document Reference 6.2.28) for potential interactions, namely considers inter-relationship between wellbeing and changes in visual amenity of onshore and offshore elements, socio-economic factors, local air quality, exposure to noise and vibration, transport, and land contamination with <b>Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</b> of the ES (Document Reference: 6.2.15), <b>Chapter 17: Socio-economics, Volume 2</b> of the ES (Document Reference: 6.2.17), <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference: 6.2.18), <b>Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference: 6.2.19), <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21), <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23), and <b>Chapter 24: Ground conditions,</b></p>

Aspect	Reasoning
Climate change	<p><b>Volume 2</b> of the ES (Document Reference: 6.2.24) where relevant. These chapter have considered the inter-related effects between the population and human health, and receptors identified within the assessment. As such, there are no further receptor-led inter-related effects identified and so are not considered further in this chapter.</p> <p>The potential for project-lifetime inter-related effects on population and human health are inherently considered in <b>Chapter 28: Population and human health, Volume 2</b> of the ES (Document Reference 6.2.28). No significant inter-related effects of greater significance compared to the effects considered alone were identified for population and human health receptors during the construction, operation and maintenance, and decommissioning phases of the Proposed Development. Therefore, project-lifetime inter-related effects are not given further consideration in this chapter.</p> <p>The assessment of potential effects for climate change inherently considers the inter-relationships between aspect assessments considered within this ES, presented in <b>Chapter 29: Climate change, Volume 2</b> of the ES (Document Reference: 6.2.29). The information provided in the climate change chapter demonstrates that the potential greenhouse gas effects will be managed and reduced through the application of embedded environmental measures to ensure there are no adverse significant effects as the result of the Proposed Development.</p> <p>The climate change chapter provides and In Combination Climate Impact assessment (ICCI), presented in <b>Section 29.20 of Chapter 29: Climate change, Volume 2</b> of the ES (Document Reference: 6.2.29). The ICCI considers the extent to which climate change exacerbates the effects and receptors resulting from the Proposed Development which are identified in other aspect chapters in this ES (this includes: <b>Chapter 8: Fish and shellfish ecology, Volume 2</b> of the ES (Document Reference 6.2.8), <b>Chapter 11: Marine mammals, Volume 2</b> of the ES (Document Reference 6.2.11), <b>Chapter 16: Marine archaeology, Volume 2</b> of the ES (Document Reference 6.2.16), <b>Chapter 18: Landscape and visual impact, Volume 2</b> of the ES (Document Reference 6.2.18), <b>Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference 6.2.19), <b>Chapter 20: Soils and agriculture, Volume 2</b> of the ES (Document Reference 6.2.20), <b>Chapter 24: Ground conditions, Volume 2</b> of the ES (Document Reference 6.2.24), and <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference 6.2.26)). It also considers whether climate change affects the efficacy of proposed environmental measures within other technical aspect chapters. Therefore, the ICCI provides an assessment of the inter-related effects from both the Proposed Development and climate change on environmental receptors considered across the project.</p>



Aspect	Reasoning
	Therefore, the climate change chapter through the greenhouse gas and climate vulnerability assessments consider project-lifetime and receptor-led inter-related effects inherently and so are not considered further in this chapter.

## 30.6 Assessment of effects

30.6.1 The assessment of inter-related effects is reported in this section and therefore considers the following receptors:

- Coastal processes (**Table 30-6**): project-lifetime inter-related effects only;
- Other marine users (**Table 30-7**): project-lifetime inter-related effects only;
- Fish and shellfish ecology (**Table 30-8**): project-lifetime inter-related effects only;
- Benthic subtidal and intertidal ecology (**Table 30-9**): project-lifetime inter-related effects only;
- Marine mammals (**Table 30-10** and **Table 30-11**): receptor-led and project-lifetime inter-related effects;
- Offshore ornithology (**Table 30-12**): project-lifetime inter-related effects only;
- Shipping and navigation (**Table 30-13**): project-lifetime inter-related effects only;
- Seascape, landscape and visual impact assessment (**Table 30-14**): receptor-led inter-related effects only;
- Landscape and visual impact (**Table 30-14**): receptor-led inter-related effects only;
- Air quality (**Table 30-15**): receptor-led inter-related effects only;
- Soils and agriculture (**Table 30-16**): receptor-led inter-related effects only;
- Noise and vibration (**Table 30-17**): receptor-led inter-related effects only;
- Transport (**Table 30-18** and **Table 30-19**): receptor-led and project-lifetime inter-related effects;
- Ground conditions (**Table 30-20**): receptor-led inter-related effects only; and
- Water environment (**Table 30-21**): receptor-led inter-related effects only.



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**Table 30-6 Coastal processes project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Changes to landfall morphology due to the export cable at the landfall.</b>	Minor adverse / Not Significant	No effect	Minor adverse / Not Significant	There is no potential for coastal process project-lifetime inter-related effects for this impact as the residual effects identified do not occur over sequential project phases.
<b>Changes to the tidal, wave, sediment transport regimes and seabed scour as a result of the installation/removal, and presence of less than all windfarm infrastructure.</b>	Negligible to Minor adverse / Not Significant	No effect	Negligible to Minor adverse / Not Significant	There is no potential for coastal process project-lifetime inter-related effects for this impact as the residual effects identified do not occur over sequential project phases.
<b>Changes to the wave regime through presence of wind farm infrastructure.</b>	No effect	Negligible to Minor adverse / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
<b>Changes to the sediment transport regime due to presence of wind farm infrastructure.</b>	No effect	Negligible to Minor adverse / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.

**Table 30-7 Other marine users project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Increased vessel movements</b>	Minor adverse / Not significant	Minor adverse / Not significant	Minor adverse / Not significant	The construction phase of Rampion 2 is expected to increase vessel movements within the vicinity of the Offshore Array Area and export cable corridor. During the operation and maintenance phase the increase in vessel movements will be smaller than those during construction, and during the decommissioning phase vessel movements required are expected to be similar to the construction phase. It is expected that the significance of this effect will be greatest during the construction and decommissioning phases, with a much smaller effect during the operation and maintenance phase. As such, across the project lifetime, the effects on other marine users receptors are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase.
<b>Displacement from the use of safety zones</b>	Minor adverse / Not significant	No effect	Minor adverse / Not significant	The construction and decommissioning of Rampion 2 and the presence of safety zones will exclude other marine user receptors from the Offshore Array Area and along the export cable corridor and may result in a temporary, localised displacement. The impact will be short term. Across the project lifetime, the effects on other marine users receptors are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase.
<b>Temporary increases in suspended sediment and subsequent deposition</b>	Minor adverse / Not significant	No effect	Minor adverse / Not significant	The majority of the seabed disturbance (resulting in highest suspended sediment concentration (SSC)/deposition) will occur during the construction and decommissioning phases. Receptors and associated other marine users receptors are not expected to be significantly affected by increased SSC and deposition and will have recovered in the intervening period between the construction and decommissioning phases. Therefore, across the project lifetime, the effects on other marine users receptors are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase.
<b>Temporary increases in subsea noise associated with the installation of WTG foundations</b>	Minor adverse / Not significant	No effect	No effect	This effect will only arise during the construction phase and as such there will be no inter-related effects across the project-lifetime.
<b>Physical presence of infrastructure</b>	No effect	Minor adverse / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.

**Table 30-8 Fish and shellfish ecology project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Direct disturbance resulting from marine works with the export cable and array area.</b>	Minor adverse / Not significant	Minor adverse / Not significant	Minor adverse / Not significant	<p>Direct disturbance resulting from marine works with the export cable and array area will occur during construction as cables are installed (through ploughing, trenching, or jetting; seabed preparation works; cable burial if required), and the array area installed (foundation installation; vessel anchorage; seabed preparation works; jack-up operations). All fish and shellfish receptors have the potential to be affected by this impact through loss of spawning, nursery or feeding habitats, though demersal fish and shellfish species and demersal spawning species have the greatest potential to be affected. In general, mobile fish species are expected to be able to avoid temporary disturbance. The most vulnerable species are likely to be shellfish which are much less mobile than fish.</p> <p>Direct disturbance during the construction phase from the installation of the offshore export cable corridor and array area will occur within the proposed DCO Order Limits. Direct disturbance occurring outside the Rampion 2 proposed DCO Order Limits (e.g. anchor placement) will be highly limited in extent, and as the species found to surrounding the proposed DCO Order Limits are comparable to those within. Temporary habitat loss / disturbance is likely to occur during the operation and maintenance phase of the Proposed Development as a result of spud-can impacts from jack-up vessels and also cable re-burial works (where necessary). The impacts associated with these operations are likely to be similar (at least in nature) to those associated with the construction phase. Disturbance as a result of maintenance during the operational lifetime of the Proposed Development is predicted to affect a very small proportion of fish and shellfish habitats within the Rampion 2 Study Area, with limited effects on fish and shellfish receptors. Although it is expected that most of the Proposed Development array and offshore export cables will be left in situ, for the purposes of the EIA it has been assumed that all cables will be removed during decommissioning, though any cable protection installed will be left in situ. WTGs and offshore substations will be removed by reversing the methods used to install them.</p> <p>RED have committed to cable burial where seabed conditions allow in order that direct impacts to important fish and shellfish habitats can be avoided as far as practicable, and that any longer duration of impact is limited once the seabed recovers. Where this is not possible, cable protection may be required at the seabed surface. The installation of cable protection and cable crossings is regarded as permanent habitat loss/modification and the effects arising from the use of such is considered under the operation and maintenance phase (see <a href="#">Table 8-10</a> in <a href="#">Chapter 8: Fish and shellfish ecology, Volume 2</a> of the ES (Document Reference: 6.2.8)). Relevant embedded environmental measures, as outlined in <a href="#">Table 8-13</a> in <a href="#">Chapter 8: Fish and shellfish ecology, Volume 2</a> of the ES (Document Reference: 6.2.8), focus on minimising long-term habitat loss, where possible (C-44), cables will be buried where possible to ensure minimal use of cable protection (C-41, C-45, and C-96).</p> <p>Overall, the assessment concludes that these effects across all phases of the project-lifetime were of minor adverse significance, which is not significant in EIA terms. The majority of disturbance is expected to take place in the construction phase, and be of short-term duration, intermittent, and reversible. The habitats are expected to recover to pre-installation condition following construction. Furthermore, the habitats disturbed are widespread throughout the region and are expected to fully recover by the time of decommissioning. Considering the availability of similar suitable habitat within the Proposed DCO Order Limits, and in the wider context of the English Channel and into the southern North Sea, the impact is predicted to be of local spatial extent. Therefore, across the project lifetime, effects on fish and shellfish receptors are not anticipated to interact in such a way as to result in project-lifetime inter-related effects of greater significance than those considered in isolation for each individual phase.</p>

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Mortality, injury, behavioural changes, and auditory masking arising from noise and vibration.</b>	Minor adverse / Not significant	No effect	Minor adverse / Not significant	There is no potential for project-lifetime inter-related effects as the residual effects identified do not occur over sequential project phases.
<b>Impacts arising from UXO Clearance.</b>	Minor adverse / Not significant	No effect	No effect	This effect will only arise during the construction phase and as such there will be no inter-related effects across the project-lifetime.
<b>Impacts of underwater noise from seabed preparation, rock dumping and cable installation.</b>	Minor adverse / Not significant	No effect	No effect	This effect will only arise during the construction phase and as such there will be no inter-related effects across the project-lifetime.
<b>Temporary localised increases in SSC and smothering.</b>	Negligible to Minor adverse / Not Significant	No effect	Negligible to Minor adverse / Not Significant	There is no potential for project-lifetime inter-related effects as the residual effects identified do not occur over sequential project phases.
<b>Direct and indirect seabed disturbances leading to the release of sediment contaminants.</b>	Minor adverse / Not significant	No effect	Minor adverse / Not significant	There is no potential for project-lifetime inter-related effects as the residual effects identified do not occur over sequential project phases.
<b>Long-term loss of habitat and increased hard substrate and structural complexity due to the presence of turbine foundations, scour protection and cable protection.</b>	No effect	Negligible to Minor adverse / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
<b>EMF impacts arising from cables.</b>	No effect	Minor adverse / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.

**Table 30-9 Benthic, subtidal and intertidal ecology project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
Temporary habitat disturbance from offshore construction, maintenance, and decommissioning works.	Minor adverse / Not significant	Minor adverse / Not significant	Minor adverse / Not significant	<p>The benthic habitats that characterise the proposed DCO Order Limits are not geographically restricted to within the proposed development area and are typically widespread throughout the eastern English Channel region. The habitat disturbance throughout the project-lifetime of Rampion 2 will have an impact on a limited footprint compared to their overall extent. The magnitude of habitat disturbance relating to marine activities on benthic subtidal receptors is therefore considered to be minor, indicating that the potential is for localised disturbance and/or loss of habitat that does not threaten the long-term viability of the resource. Therefore, given the relatively small spatial scales for the total habitat disturbance, this temporary loss is not expected to undermine regional ecosystem functions or diminish biodiversity.</p> <p>As noted in the project description as provided in <a href="#">Chapter 4: The Proposed Development, Volume 2</a> of the ES (Document Reference: 6.2.4) there is a commitment made for Horizontal Directional Drilling (HDD) (C-43). Therefore, no habitat disturbance will occur within the intertidal area from export cable installation as the two HDD works exit pits will be located within the subtidal area and will be discrete in nature. Therefore, the magnitude that habitat disturbance relating to marine works at the Proposed Development will have on benthic intertidal receptors is considered to be negligible.</p> <p>The direct impact of habitat disturbance will represent a local spatial extent, short term intermittent impact (for the majority of biotopes), affecting a relatively small portion of the benthic subtidal habitats in the proposed DCO Order Limits. The short-term and localised nature of this impact and the tolerance and recoverability of the majority of the benthic receptors, the significance of the residual effect is deemed minor adverse significance (not significant in EIA terms).</p> <p>The implementation of mitigation options (C-269, C-270, C-272) whereby cable installation will be constrained to minimise the area of physical disturbance and interaction on chalk habitat will ensure a reduction in the magnitude of the impact to a negligible level for this feature. On this basis, and considering the high sensitivity of chalk, the residual effect significance will be minor, not significant in EIA terms.</p> <p>Across the project lifetime, disturbance is not expected to occur to the point of irreversibility and once decommissioning is completed, full recovery to the baseline condition is expected. Therefore, the project lifetime effects on benthic habitats are not anticipated to result in inter-related effects of greater significance than the assessments conclude for each phase in isolation.</p>
Temporary increase in suspended sediment and sediment deposition in the Rampion 2 array area, offshore cable corridor, inter-tidal area, foundations, cables, and rock protection.	Minor adverse / Not significant	No effect	Minor adverse / Not significant	There is no potential for project-lifetime inter-related effects as the residual effects identified do not occur over sequential project phases.
Direct and indirect seabed disturbances leading to the	Minor adverse / Not significant	No effect	Minor adverse / Not significant	There is no potential for project-lifetime inter-related effects as the residual effects identified do not occur over sequential project phases.

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
release of sediment contaminants.				
Increased risk of introduction or spread of marine Invasive Non-Native Species (INNS) may affect benthic ecology and biodiversity.	Minor adverse / Not significant	Minor adverse / Not significant	Minor adverse / Not significant	There is a risk that increased vessel movements during marine works throughout the project-lifetime will contribute to the risk of introduction or spread of marine INNS through ballast water discharge. Impacts associated with introduction of hard substrate is discussed within <a href="#">Chapter 9: Benthic, intertidal and subtidal ecology, Volume 2</a> of this ES (Document Reference: 6.2.9). The movement of commercial vessels is common throughout the region ( <a href="#">Chapter 13: Shipping and navigation, Volume 2</a> of the ES (Document Reference: 6.2.13)) and this provides an existing and potentially more likely method of transport for marine INNS species (due to the higher variety of ports and passage routes). Embedded environmental measures which include an <a href="#">Outline Project Environmental Management Plan (PEMP)</a> (Document Reference: 7.11) (C-95). The Final PEMP will include a biosecurity plan to ensure that the risk of potential introduction and spread of marine INNS from increased vessel activity is minimised. Therefore, the magnitude of the impact that marine works throughout the project-lifetime will have to the introduction or spread of marine INNS is considered to be negligible, indicating that there will not be a discernible change for any length of time, over a small area of the receptor that does not threaten benthic subtidal ecology features, undermine regional ecosystem functions or diminish biodiversity. The residual effect significance will be minor, not significant. It is therefore not anticipated that there will be any inter-related effects of greater significance than those occurring in isolation.
Indirect disturbance arising from the accidental release of pollutants.	Minor adverse / Not significant	Minor adverse / Not significant	Minor adverse / Not significant	There is a risk that indirect disturbance arising from the accidental release of pollutants such as synthetic compounds, heavy metal, and hydrocarbon contamination resulting from marine works and movements could lead to an adverse effect on benthic subtidal ecology receptors. Furthermore, there is potential adverse effect risk to intertidal receptors from accidental release of pollutants from machinery use and vehicle movement across the intertidal zone. Embedded environmental measures which include an <a href="#">Outline Marine Pollution Contingency Plan (C-53)</a> will act to safeguard the marine and intertidal environment and provide environmental measures in the event of an accidental pollution event arising from marine works relating to the Proposed Development, ensuring that the risk of an accidental pollution event is minimised. Therefore, the magnitude of the impact accidental release of pollutants is considered to be negligible, indicating that there will not be a discernible change for any length of time, over a small area of the receptor that does not threaten benthic subtidal ecology features, undermine regional ecosystem functions, or diminish biodiversity. The residual effect significance will be Minor, Not Significant in EIA terms. Therefore, it is considered that there is no potential for inter-related effects of greater significance than the effects assessed in isolation.
Indirect disturbance from increased noise and vibration from construction activities.	Minor adverse / Not significant	No effect	No effect	This effect will only arise during the construction phase and as such there will be no inter-related effects across the project-lifetime.
Long-term habitat loss/alteration from the presence of foundations, scour protection and cable protection.	No effect	Minor adverse / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.



Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
Changes to seabed habitats arising from effects on physical processes, including scour effects and changes in the sediment transport and wave regimes resulting in potential effects on benthic communities.	No effect	Minor adverse / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
Colonisation of the WTGs and scour/cable protection may affect benthic ecology and biodiversity.	No effect	Minor adverse / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
Indirect disturbance arising from EMF generated by the current flowing through the cables buried to less than 1.5m below the surface.	No effect	Negligible / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.

Table 30-10 Marine mammals receptor-led inter-related effects assessment

Receptor-led effects	Inter-related assessment
<b>Inter-related effect from the combination of disturbance from underwater noise, the presence of vessels, and loss of prey resources on marine mammals.</b>	<p>The greatest potential for spatial and temporal interactions are likely to occur with underwater construction noise impacts (i.e. during the construction phase). The individual impacts were assigned a significance of <b>negligible</b> to <b>minor adverse</b>. It is noted that some of these interactions are mutually exclusive (i.e. disturbance / displacement resulting from underwater noise will mean reduced potential for vessel interactions). It is therefore not anticipated that any inter-related effects will be produced that are of greater significance than the assessments presented for each in isolation.</p>
<b>Inter-related effects from the interaction of increased SSC and smothering, and underwater noise.</b>	<p>With respect to the interaction with increased SSC and smothering, and underwater noise, these impacts were assigned a significance of <b>minor adverse</b> for all fish and shellfish receptors apart from black bream which was <b>moderate adverse</b>. Therefore, the effect on mammals (via the impact on prey species) can also be considered as <b>minor adverse</b> significance at most (as the potential for effect is indirect).</p> <p>Although potential inter-related impacts may arise, it is important to recognise that some of the activities are mutually exclusive. Furthermore, underwater noise from piling which is predicted to result in displacement of organisms which will in turn mean that these species will not be exposed to the greatest predicted increases in SCC from smothering and drilling in the array area. Therefore, effects of greater significance than the individual impacts in isolation are not predicted.</p>
<b>Inter-related effects from the interaction of increased SSC and smothering, and habitat loss/disturbance.</b>	<p>The greatest potential for inter-related effects is predicted to occur through the interaction of both temporary and permanent habitat loss/disturbance from foundation installation/jack-up vessels/anchor placement/scour, indirect habitat disturbance due to sediment deposition and indirect effects of changes in physical processes due the presence of infrastructure in the operational offshore wind farm.</p> <p>With respect to this interaction, these impacts were assigned a significance of <b>minor adverse</b> for all fish and shellfish receptors apart from black bream which was <b>moderate adverse</b>. Therefore, the effect on mammals (via the impact on prey species) can also be considered as <b>minor adverse</b> significance at most (as the potential for effect is indirect).</p> <p>In addition, any effects due to changes in the physical processes are likely to be limited, both in extent and in magnitude, with receptors having low sensitivity to the scale of changes predicted. As such, these interactions are predicted to be no greater in significance than that for the individual effects assessed in isolation.</p>

**Table 30-11 Marine mammals project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Disturbance from underwater noise.</b>	Negligible to Minor adverse/ Not Significant	Negligible / Not significant	Minor adverse / Not Significant	Disturbance to marine mammals will be mainly caused by underwater noise from piling and UXO in the construction phase and removal of structures in the decommissioning phase. The construction and decommissioning phases are significantly temporally separate such that there will be no interaction between the two. Disturbance from underwater noise was assessed as Not Significant in EIA terms. Therefore, across the Proposed Development lifetime, the effects on marine mammal receptors are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase.
<b>Collisions and disturbance from vessels.</b>	Minor adverse / Not Significant	Negligible to Minor adverse/ Not Significant	Negligible to Minor adverse/ Not Significant	The potential for disturbance and/or collision effects will arise at all stages of the Proposed Development, resulting in a potential lifetime effect. However, it is not predicted that the significance of any potential effects will increase due to the interaction of this impact across all Proposed Development stages, rather be maintained at the same level throughout the project. With the proposed implementation of a Vessel Management Plan (C 51), impacts from vessel activity is assessed as minor and therefore not significant across all three phases. Therefore, across the Proposed Development lifetime, the effects on marine mammals are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase.
<b>Changes to prey availability.</b>	Negligible / Not significant	Negligible / Not significant	Negligible / Not significant	The potential for changes to prey availability will arise at all stages of the Proposed Development, resulting in a potential lifetime effect. However, it is not predicted that the significance of any potential effects will increase due to the interaction of this impact across all Proposed Development stages, rather be maintained at the same level throughout the project. As marine mammals are generalist feeders, impacts are assessed as negligible throughout all three phases. Therefore, across the Proposed Development lifetime, the effects on marine mammals are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phase.

**Table 30-12 Offshore ornithology project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Disturbance and displacement: array area.</b>	Negligible / Not significant	Negligible / Not significant	Negligible / Not significant	<p>The activities within an array area associated within the construction, operation and maintenance, and decommissioning of WTGs has the potential to directly disturb and displace seabirds that would normally reside within and around the area of sea where Rampion 2 is proposed to be developed.</p> <p>Throughout the project-lifetime, this in effect represents indirect habitat loss, which would potentially reduce the area available to those seabirds to forage, rest and / or moult that currently occur within and around Rampion 2 and may be susceptible to displacement from such a development. Displacement may contribute to individual birds experiencing fitness consequences, which at an extreme level could lead to the mortality of individuals, though during the construction and decommissioning phases of an offshore windfarm such activities are spatially and temporally restricted.</p> <p>Given a magnitude of change of Negligible on all offshore ornithological receptors, following the assessment undertaken in <a href="#">Chapter 12: Offshore and intertidal ornithology, Volume 2</a> of the ES (Document Reference: 6.2.12), the potential effect of displacement and disturbance from activities throughout the project-lifetime in the array area on all offshore ornithological receptors has been assessed as Not Significant. As none of the offshore impacts on birds were assessed individually to have any greater than a minor adverse effect, it is considered highly unlikely that they would inter-relate to form an overall significant effect on offshore and intertidal ornithology receptors.</p>
<b>Disturbance and displacement: offshore cable corridor.</b>	Negligible / Not significant	No effect	Negligible / Not significant	There is no potential for project-lifetime inter-related effects as the residual effects identified do not occur over sequential project phases.
<b>Indirect effects: offshore cable corridor and array area.</b>	Negligible / Not significant	Negligible / Not significant	Negligible / Not significant	<p>During the project-lifetime of Rampion 2 there is the potential for indirect effects arising from the displacement of prey species due to increased disturbance, or to disturbance of habitats from increased suspended sediment and physical disturbance to the seabed. Underwater noise may cause fish and mobile invertebrates to avoid the construction area and also affect their physiology and behaviour. Suspended sediments may cause fish and mobile invertebrates to avoid the construction area and may smother and hide immobile benthic prey. These mechanisms may result in less prey being available within the construction area to foraging seabirds. However, as no significant effects were identified to potential prey species (fish or benthic) or on the habitats that support them in the assessments on fish and benthic ecology (<a href="#">Chapter 8: Fish and shellfish ecology, Volume 2</a> of the ES (Document Reference: 6.2.8) and <a href="#">Chapter 9: Benthic, subtidal and intertidal ecology, Volume 2</a> of the ES (Document Reference: 6.2.9), respectively) then there is no potential for any indirect effects of an adverse significance to occur on offshore and intertidal ornithology receptors. Therefore, the project-lifetime effects on this offshore ornithology receptor are not anticipated to result in inter-related effects of greater significance than the assessments conclude for each phase in isolation.</p>
<b>Collision risk: array area.</b>	No effect	Negligible / Not significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.

**Table 30-13 Shipping and navigation project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Displacement of vessels (worst-case element is grounding risk).</b>	Tolerable <sup>1</sup> / Not Significant	Tolerable / Not Significant	Tolerable / Not Significant	Marine works activities throughout the construction and decommissioning phases associated with the installation/removal of structures and cables, and the presence of structures during the operation and maintenance phase may displace existing routes/activity, increase grounding risk, increase encounters and collision risk with other third-party vessels. Overall, it is predicted that the effect is of Tolerable significance throughout the project-lifetime which is Not Significant in EIA terms. The project-lifetime effects on this activity are not anticipated to result in inter-related effects of greater significance than the assessments conclude for each phase in isolation.
<b>Third-party to project vessel collision risk.</b>	Broadly acceptable / Not Significant	Broadly acceptable / Not Significant	Broadly acceptable / Not Significant	Vessels associated with marine works across the project-lifetime may increase encounters and collision risk for other vessels already operating in the area. It is expected that up to 2,415 return trips by vessels may be made throughout the construction and decommissioning phases, and the number of trips for the operation and maintenance phase is expected to be considerably reduced (up to 869 return trips per year). All phases of the Proposed Development may utilise Restricted in Ability to Manoeuvre vessels. Encounter and collision risk involving a project vessel will be managed by marine coordination (C-88) including the application of traffic management procedures such as the designation of entry and exit points to and from the array and routes to and from construction ports. Such procedures will take account of those areas where collision risk is assessed as greatest (where third-party vessels pass or undertake operational activities in proximity to the array area frequently such as marine aggregate dredgers). Additionally, experience from and procedures established for Rampion 1 will be taken into account, project vessels will carry Automatic Identification System and be compliant with Flag State regulations including International Maritime Organization conventions such as the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs) (IMO, 1972/77), and information for fishing vessels will also be promulgated through ongoing liaison with fishing fleets via an appointed Fisheries Liaison Officer (C-47). Furthermore, an application for safety zones of 500m will be sought during the construction phase (C-56). These will serve to protect project vessels engaged in construction activities. Minimum advisory passing distances, as defined by risk assessment, may also be applied, with advanced warning and accurate locations of both safety zones and any minimum advisory safe passing distances provided by Notifications to Mariners and Kingfisher Bulletins (C-46 and C-85). RED will exhibit lights, marks, sounds, signals, and other aids to navigation as required by Trinity House, and Maritime and Coastguard Agency, including the buoyed construction area (C-84). These navigational aids will further maximise mariner awareness when in proximity, both in day and night conditions including in poor visibility. Overall, it is predicted that the significance of the effect due to increased third-party to project vessel collision risk is of Broadly Acceptable significance, which is Not Significant in EIA terms. The project-lifetime effects on this activity are not anticipated to result in inter-related effects of greater significance than the assessments conclude for each phase in isolation.

<sup>1</sup> The significance criteria applied to the shipping and navigation project-lifetime inter-related effects assessment utilised the methodology set out in **Section 13.8 of Chapter 13: Shipping and navigation, Volume 2** of the ES (Document Reference: 6.2.13). Effects determined to be of Broadly Acceptable significance are low risk and not significant in EIA terms. Effects determined to be of Tolerable significance are intermediate risk and not significant in EIA terms. Effects determined to be of Unacceptable significance are high risk and significant in EIA terms.

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Reduced access to local ports (worst-case element is Shoreham Port).</b>	Tolerable / Not Significant	Tolerable / Not Significant	Tolerable / Not Significant	Marine works activities associated with the construction and decommissioning of structures and cables may displace existing routes / activity restricting access to ports/harbours. During the operation and maintenance phase, the presence of structures in the offshore environment may displace existing routes / activity restricting access to ports/harbours and prevent use of existing aids to navigation. To ensure the impact is assessed in as much detail as possible overall, a number of ports and harbours in the area have been considered individually, in <a href="#">Chapter 13: Shipping and navigation, Volume 2</a> of the ES (Document Reference: 6.2.13). Overall, it is predicted that the effect is of Tolerable significance, which is Not Significant in EIA terms. The project-lifetime effects on this activity are not anticipated to result in inter-related effects of greater significance than the assessments conclude for each phase in isolation.
<b>Vessel to structure collision risk (worst-case element is internal collision risk).</b>	No effect	Tolerable / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
<b>Changes in under keel clearance.</b>	No effect	Broadly acceptable / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
<b>Increased anchor interaction with sub-sea cables.</b>	No effect	Broadly acceptable / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.
<b>Reduction of emergency response provision including SAR capability.</b>	No effect	Broadly acceptable / Not Significant	No effect	This effect will only arise during the operation and maintenance phase and as such there will be no inter-related effects across the project-lifetime.

**Table 30-14 SLVIA and LVIA receptor-led inter-related effects assessment**

Receptor-led effects	Inter-related assessment
<b>Inter-related landscape effects</b>	<p data-bbox="468 344 753 378"><b><u>Construction phase</u></b></p> <p data-bbox="468 415 2819 550">The majority of Landscape Character Areas (LCAs) and landscape designations in the SLVIA study area will not experience inter-related effects, since they have either no visibility, or very limited / distant visibility, of either the construction of the onshore infrastructure or the construction of the offshore elements of Rampion 2, and therefore have limited potential for inter-related effects to occur. Inter-related effects will only occur on those LCAs and landscape designations near the landfall, where the construction of the onshore infrastructure will occur in areas that may also be susceptible to changes resulting from views of the construction of the offshore infrastructure.</p> <p data-bbox="468 575 2819 672">Based on the assessments undertaken in <a href="#">Chapter 18: Landscape and visual impact, Volume 2</a> of the ES (Document Reference 6.2.18), a limited number of LCAs are identified as having potential to have inter-related effects arising through the potential change in character resulting from the construction of the onshore infrastructure and offshore infrastructure, as follows:</p> <ul data-bbox="575 697 1442 1491" style="list-style-type: none"> <li>• South Coast Shoreline (SC1<sup>2</sup>);</li> <li>• Chichester to Yapton Coastal Plain (SC9);</li> <li>• Lower Arun Valley (SC10);</li> <li>• Angmering Upper Coastal Plain (SC12);</li> <li>• Climping Lower Coastal Plain (LCA No. 31);</li> <li>• Middle Arun Valley Floor (LCA No. 34);</li> <li>• Lower Arun Valley Floor (LCA No. 35);</li> <li>• Crossbush Arun Valley Sides (LCA No. 36);</li> <li>• Lyminster Arun Valley Sides (LCA No. 37);</li> <li>• Littlehampton Arun Valley Sides (LCA No. 38);</li> <li>• Lyminster Angmering Coastal Plain (No. 40);</li> <li>• South Downs Upper Coastal Plain (R1);</li> <li>• Arun Valley Sides (G4);</li> <li>• Angmering and Clapham Wooded Estate Downland (B4); and</li> <li>• Arun to Adur Open Downs (A3).</li> </ul> <p data-bbox="468 1516 2819 1650">Effects assessments for the offshore elements of Rampion 2 are undertaken in <a href="#">Chapter 15: Seascape, landscape and visual impact assessment, Volume 2</a> of the ES (Document Reference 6.2.15), and onshore infrastructure within <a href="#">Chapter 18: Landscape and visual impact, Volume 2</a> of the ES (Document Reference 6.2.18) with outcomes reported within and throughout the ES. Inter-related effects are assessed as most likely to occur in a localised area of some of these LCAs, particularly those within closer proximity to the coast in West Sussex within the Arun Valley, and from the Adur to Arun Open Downs (A3) within the SDNP.</p> <p data-bbox="468 1675 2819 1806">The perceived character of localised parts of the Chichester to Yapton Coastal Plain (SC9) and Lower Arun Valley (SC10) nearer the coast (between Littlehampton and Climping) (<a href="#">Map 2, Figure 15.19b, Volume 3</a> of the ES (Document Reference: 6.3.15) could potentially experience significant inter-related effects during, and close to, the construction of the landfall and onshore cable route, together with the construction of the offshore elements of Rampion 2 in offshore views, over a short-term period when their construction periods overlap.</p>

<sup>2</sup> See [Chapter 18: Landscape and visual impact assessment, Volume 2](#) of the ES (Document Reference: 6.2.18) for Site ID references.

## Receptor-led effects Inter-related assessment

The perceived character of localised parts of the Adur to Arun Open Downs (A3) could potentially experience significant inter-related effects during, and close to, the construction of the onshore cable route, together with the construction of the offshore elements of Rampion 2 in views from the tops of the downs (roughly between Warningcamp and Chantry Hill) ([Map 2, Figure 15.19b, Volume 3](#) of the ES (Document Reference: 6.3.15)), over a short-term period when their construction periods overlap.

In reality, the programming would mean there would likely be some degree of separation between the construction of the onshore infrastructure and construction of the offshore elements of Rampion 2. The period over which potentially significant inter-related effects on landscape character occur during construction is therefore limited to the short-term with inter-related effects being temporary, and becoming not significant during the operational phase, when the landfall and onshore cable route will have a **negligible** change to landscape character.

The receptor-led inter-related effects of the construction of the onshore infrastructure and the construction of the offshore elements of Rampion 2 are assessed as **not significant** on the perceived character of all LCAs listed above. It is therefore not anticipated that any receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered alone.

### Operation and maintenance phase

Based on the assessments undertaken in [Chapter 15: Seascape, landscape and visual impact assessment, Volume 2](#) of the ES (Document Reference 6.2.15) and [Chapter 18: Landscape and visual impact, Volume 2](#) of the ES (Document Reference 6.2.18) due to the geographic separation of the offshore elements of Rampion 2 and the onshore substation, the assessment identifies **no significant** inter-related landscape effects resulting from the operation of the Rampion 2 wind farm and the onshore substation.

### Decommissioning phase

The inter-related residual landscape effects arising as a result of the decommissioning of the offshore elements of Rampion 2 are assessed as being of the same magnitude and significance on all SLVIA and LVIA receptors as those arising due to the construction, and operation and maintenance phases. Differing primarily as the residual effects being short-term, temporary, and reducing during the length of the decommissioning phase (i.e. similar to the construction phase). For all SLVIA and LVIA receptors these impacts during decommissioning are assessed to be of no greater magnitude and effects of no greater significance than the inter-related landscape effects assessed during the construction, and operation and maintenance phase assessment above. Therefore, **no significant** inter-related landscape effects resulting from the operation of the Rampion 2 wind farm and the onshore substation.

## Inter-related visual effects

### Construction phase

The majority of viewpoints and visual receptors in the SLVIA study area will not experience inter-related effects, since they have either no visibility, or very limited/distant visibility, of either or both the construction of the onshore infrastructure or the offshore elements of Rampion 2, and therefore there is limited potential for inter-related effects to occur. Inter-related effects will only occur on those viewpoints and visual receptors near the landfall, or near to the onshore cable corridor, where the construction of the onshore infrastructure will occur in areas that may also be susceptible to changes resulting from views of the construction of the offshore elements of Rampion 2.

Based on the assessments undertaken in [Chapter 18: Landscape and visual impact, Volume 2](#) of the ES (Document Reference 6.2.18) a limited number of viewpoints and visual receptors are identified as having potential to have inter-related effects arising through the potential change to views resulting from the construction of the onshore infrastructure and offshore infrastructure, as follows:

- Settlements of Littlehampton and Arundel;
- Railway Line from Littlehampton and Ford to Arundel;
- South Downs Way (Viewpoints 20, 53, and 54<sup>3</sup>);
- South Coast Cycle Route (Sustrans NCR 2);

<sup>3</sup> See [Chapter 18: Landscape and visual impact assessment, Volume 2](#) of the ES (Document Reference: 6.2.18) for viewpoint and site ID references.



## Receptor-led effects Inter-related assessment

- A259 between Climping and Littlehampton;
- Arun Way;
- Monarch's Way;
- Littlehampton Golf Club;
- Littlehampton West Beach including Climping Beach (Viewpoint 40 – Climbing Beach);
- Arundel Castle (Viewpoint 33 - Arundel Castle);
- Amberley Mount (Viewpoint 53 – Amberley Mount);
- Chantry Hill Open Access Land (Viewpoint 54 - Chantry Hill); and
- Chanctonbury Hill (including Chanctonbury Ring and Open Access Land) (Viewpoint 52 – Chanctonbury Ring).

These visual receptors do not necessarily experience significant effects as a result of both onshore and offshore elements of the project. Effects assessments for the offshore elements of Rampion 2 are undertaken in [Chapter 15: Seascape, landscape and visual impact assessment, Volume 2](#) of the ES (Document Reference 6.2.15) and onshore infrastructure within [Chapter 18: Landscape and visual impact, Volume 2](#) of the ES (Document Reference 6.2.18) with outcomes reported within and throughout the ES.

Inter-related visual effects are assessed as most likely to occur from two main geographic areas, within closer proximity to the coast in West Sussex within the Arun Valley, and from parts of the Adur to Arun Open Downs (A3) within the SDNP ([Map 2, Figure 15.19b, Volume 3](#) of the ES (Document Reference: 6.3.15)).

Views experienced by receptors within localised parts of the West Sussex coastal plain, the Lower Arun Valley and its shoreline (between Littlehampton and Climping) could potentially experience significant inter-related effects during, and close to, the construction of the landfall and onshore cable route, together with the construction of the offshore elements of Rampion 2 in offshore views, over a short-term period when their construction periods overlap. These include views from short sections of the Arun Way, NCR2, Littlehampton Golf Club and Littlehampton West Beach, including Climping Beach. Significant inter-related visual effects could potentially be experienced, particularly focused on views the western part of Littlehampton West Beach (also includes Climping Beach), including the Arun Way (England Coastal Path/PROW 829 all overlap with Arun Way) that passes along the beach, where there are likely to be close views of the landfall and cable route during construction, together with the construction of the offshore elements of Rampion 2 out to sea in offshore views (as seen in Viewpoint 40 ([Figure 15.59, Volume 3](#) of the ES (Document Reference: 6.3.15)) and onshore cable corridor Viewpoint A ([Figure 18.7a-c, Volume 3](#) of the ES (Document Reference: 6.3.18))). Inter-related visual effects are assessed as diminishing rapidly with distance north along the Arun Valley, where offshore views quickly become intermittent and less frequent, due to the enclosure of the low-lying valley, field boundaries and settlement, which limit views of the offshore elements of Rampion 2.

Views experienced by receptors visiting the keep at Arundel Castle could potentially experience significant inter-related effects during the construction of the onshore cable route, together with the construction of the offshore elements of Rampion 2. These effects are experienced from the elevated viewing position at the keep. Which affords a perspective over the coastal plain below. From this position the construction of the onshore cable corridor is visible in the distance with the offshore elements of Rampion 2 in the seascape backdrop in the southerly view (as seen in Viewpoint 33 ([Figure 15.56, Volume 3](#) of the ES (Document Reference: 6.3.15)) and onshore cable corridor Viewpoint E ([Figure 18.25, Volume 3](#) of the ES (Document Reference: 6.3.18))), over a short-term period when their construction periods overlap.

Views experienced by receptors within localised parts of the Adur to Arun Open Downs (A3) could potentially experience significant inter-related effects during, and close to, the construction of the onshore cable route, together with the construction of the offshore elements of Rampion 2 in sea views experienced from elevated sections of the downs, over a short-term period when their construction periods overlap. These include views from short sections of the South Downs Way between Chantry Post near Chantry Hill to Barnsfarm Hill including representative views from Viewpoint 20 Springhead Hill ([Figure 15.45, Volume 3](#) of the ES (Document Reference: 6.3.15)), Viewpoint 53 Amberley Mount ([Figure 15.66, Volume 3](#) of the ES (Document Reference: 6.3.15)), and Viewpoint 54 Chantry Hill ([Figure 15.67, Volume 3](#) of the ES (Document Reference: 6.3.15)) (onshore cable corridor Viewpoint G ([Figure 18.30 Volume 3](#) of the ES (Document Reference: 6.3.18))), and the associated open access land around Chantry Hill. Effects are assessed as significant where there will be southerly views from these viewpoints and the South Downs Way, over the construction works within the cable route corridor to the Rampion 2 array area in the distant seascape backdrop, simultaneously in the same portion of the view.

The inter-related effects of the construction of the onshore infrastructure and the construction of the offshore elements of Rampion 2 could potentially experience significant on all other representative viewpoints, including more distant viewpoints from the South Downs, where there may be low to negligible changes arising as a result of the onshore

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## Receptor-led effects Inter-related assessment

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cable corridor construction (such as Viewpoints 17, 18, 19, 51, 52, 55, and 58 ([Figures 15.42, 15.43, 15.44, 15.64, 15.65, 15.68, and 15.70, Volume 3](#) of the ES (Document Reference: 6.3.15)) and where these effects occur in north-westerly views over the northern scarp and the Weald, within views away from the seascape in a different portion of the view to the Rampion 2 array area.

The assessment identifies potentially significant construction stage inter-related effects of the onshore infrastructure and offshore elements of Rampion 2 on the visual amenity experienced by people within a localised geographic area. Potentially significant construction stage inter-related visual effects are likely to occur in close proximity to the construction of onshore infrastructure at the landfall and the onshore cable route, from where there is potential for simultaneous or sequential views of the construction of the offshore elements of Rampion 2 out to sea in sea views from these routes.

In reality, the programming would mean there would likely be some degree of separation between the construction of the onshore infrastructure and construction of the offshore elements of Rampion 2. The period over which potentially significant inter-related visual effects on views and visual receptors occur during construction is limited to the short-term with inter-related effects being temporary, and becoming not significant during the operational phase, when the landfall and onshore cable route will have a **negligible** change to views.

The receptor-led inter-related effects of the construction of the onshore infrastructure and the construction of the offshore elements of Rampion 2 are assessed as **not significant** on the perceived views of all visual receptors listed above. It is therefore not anticipated that any receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered alone.

### Operation and maintenance phase

Based on the assessments undertaken in [Chapter 15: Seascape, landscape and visual impact assessment, Volume 2](#) of the ES (Document Reference 6.2.15) and [Chapter 18: Landscape and visual impact, Volume 2](#) of the ES (Document Reference 6.2.18) due to the geographic separation of the offshore elements of Rampion 2 and the onshore substation, the assessment identifies **no significant** inter-related visual effects resulting from the operation of the Rampion 2 wind farm and the onshore substation.

### Decommissioning phase

The inter-related residual visual effects arising as a result of the decommissioning of the offshore elements of Rampion 2 are assessed as being of the same magnitude and significance on all SLVIA and LVIA receptors as those arising due to the construction, and operation and maintenance phases. Differing primarily as the residual effects being short-term, temporary, and reducing during the length of the decommissioning phase (i.e. similar to the construction phase). For all SLVIA and LVIA receptors these impacts during decommissioning are assessed to be of no greater magnitude and effects of no greater significance than the inter-related visual effects assessed during the construction, and operation and maintenance phase assessment above. Therefore, **no significant** inter-related visual effects resulting from the operation of the Rampion 2 wind farm and the onshore substation.

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**Table 30-15 Air quality receptor-led inter-related effects assessment**

Receptor-led effects	Inter-related assessment
<p>Effects on human health due to emissions from air pollutants at human receptors, such as residential properties, schools, medical facilities, prisons, and commercial properties.</p> <p>Loss of amenity due to dust and odour at human receptors, such as residential properties, schools, medical facilities, prisons, and commercial properties.</p>	<p>The construction phase has the highest likelihood of receptor-led effects as several activities take place during this phase (refer to <a href="#">Chapter 4: The Proposed Development, Volume 2</a> of the ES (Document Reference: 6.2.4)). Although receptor-led effects will likely be short term and temporary depending on works being completed in vicinity of a receptor.</p> <p>The implementation of the <a href="#">Outline Code of Construction Practice</a> (Document Reference: 7.2) and other embedded environmental measures have been considered within the individual aspect assessments which conclude <b>Not Significant</b> effects for noise and vibration, air quality, and transport.</p> <p><a href="#">Chapter 28: Population and human health, Volume 2</a> of this ES (Document Reference: 6.2.28) has considered the potential impacts from the Proposed Development and has inherently considered the effects on human receptors. This assessment concluded negligible to minor adverse effects that are considered Not Significant in EIA terms across all human health receptors. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapters.</p> <p>Overall, some inter-related effects on residents may arise at some locations on a temporary basis. However, embedded environmental measures are designed to reduce these effects and it is considered unlikely that any inter-related effects will exceed the significance reported in the individual aspect chapters for noise and vibration, air quality, transport or landscape and visual effects. The decommissioning phase is expected to be broadly similar to the construction phase.</p>
Effects on designated ecological receptors.	<p><a href="#">Chapter 19: Air quality, Volume 2</a> of the ES (Document Reference: 6.2.19) has assessed potential likely significant effects on ecological receptors, including the Amberley Mount to Sullington Hill Sites of Special Scientific Interest (SSSI) and the Climping Beach SSSI. Impacts have been considered further on ecological receptors, where appropriate, in <a href="#">Chapter 22: Terrestrial ecology and nature conservation, Volume 2</a> of the ES (Document Reference: 6.2.22). It is considered unlikely that any inter-related effects will exceed the significance reported in <a href="#">Chapter 22: Terrestrial ecology and nature conservation, Volume 2</a> of the ES (Document Reference: 6.2.22).</p>

**Table 30-16 Soils and agriculture receptor-led inter-related effects assessment**

Receptor-led effects	Inter-related assessment
<p>Impact on agricultural land and soils.</p> <p>Potential for inter-related effects with transport, water environment and ground conditions.</p>	<p>Inter-related effects could arise at some agricultural land/operations such as from effects to water resources associated with land drainage, mobilisation of contaminants and disruption to transport (such as severance effects to accesses). However, embedded environmental measures are designed to reduce these effects. For example, the seasonal timing of the construction works will be planned to minimise risks to water environment and flood risk receptors, terrestrial ecology nature conservation and soils and agricultural land. Relevant measures will also be included in the <b>Outline Soils Management Plan</b> (SMP) (Document Reference: 7.4) and the Outline Material Management Plan to minimise effects on the soil resource.</p> <p>Assessment of potential drainage effects for the Proposed Development has been considered in <b>Chapter 26: Water environment, Volume 2</b> of the ES (Document Reference 6.2.26). This assessment concluded negligible to minor adverse effects that are considered Not Significant in EIA terms. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapter.</p> <p>Assessment of potential severance effects as a result of the Proposed Development has been considered in <b>Chapter 23: Transport, Volume 2</b> of the ES (Document Reference 6.2.23). This assessment concluded negligible to minor adverse effects that are considered Not Significant in EIA terms. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapter.</p> <p>Assessment of potential contamination effects for the Proposed Development has been considered in <b>C Chapter 24: Ground conditions, Volume 2</b> of the ES (Document Reference 6.2.24). This assessment concluded negligible to minor adverse effects that are considered Not Significant in EIA terms. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapter.</p>

**Table 30-17 Noise and vibration receptor-led inter-related effects assessment**

Receptor-led effects	Inter-related assessment
<p>Receptors considered in the noise and vibration assessment include residential receptors, community services, commercial, terrestrial ecology, historic environment, and leisure areas.</p>	<p>The construction phase has the highest likelihood of receptor-led effects as several activities take place during this phase (see <a href="#">Chapter 4: The Proposed Development, Volume 2</a> of the ES (Document Reference: 6.2.4)). Although construction phase receptor-led effects will likely be short term and temporary depending on works being completed in vicinity of a receptor.</p> <p>The implementation of the <a href="#">Outline Code of Construction Practice</a> (Document Reference: 7.2) and other embedded environmental measures have been considered within the individual aspect assessments which conclude Not Significant effects for noise and vibration, air quality, transport, and human health.</p> <p><a href="#">Chapter 28: Population and human health, Volume 2</a> of this ES (Document Reference: 6.2.28) has considered the potential impacts from the Proposed Development and has inherently considered the effects on human receptors. This assessment concluded negligible to minor adverse effects that are considered Not Significant in EIA terms across all human health receptors. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapters.</p> <p>Overall, some inter-related effects on residents may arise at some locations on a temporary basis. However, embedded environmental measures are designed to reduce these effects and it is considered unlikely that any inter-related effects will exceed the significance reported in the individual aspect chapters for noise and vibration, air quality, transport, landscape and visual effects, or human health.</p> <p>Operation and maintenance effects for noise and vibration are expected to be limited to occasional site visits and maintenance works. This is expected to result in effects that are Not Significant in EIA terms, and they are unlikely to produce significant inter-related receptor-led effects.</p> <p>The embedded mitigation for the onshore substation includes enclosures that increases the size of the plant equipment, thereby having an inter-related effect with the LVIA (<a href="#">Chapter 18: Landscape and visual impact, Volume 2</a> of the ES (Document Reference: 6.2.18)), though for noise any landscape mitigation would reduce effects (i.e. screening) and therefore inter-related effects for noise and vibration from the onshore substation would be considered negligible. The operation of the wind farm has been predicted to result in negligible noise effects and therefore no inter-related effects with landscape would be anticipated.</p> <p>Decommissioning phase receptor-effects are expected to be broadly similar to the construction phase. Therefore, it is considered unlikely that any inter-related effects will exceed the significance reported in the individual aspect chapters for noise and vibration, air quality, transport, landscape and visual effects, or human health.</p>

**Table 30-18 Transport receptor-led inter-related effects assessment**

Receptors considered	Inter-related assessment
<p>Receptors considered in the transport assessment include people, sensitive groups, pedestrians, cyclists, sensitive locations, pedestrians, local areas, open spaces, sites (ecological and tourist), and highway links. There is potential for inter-related effects with air quality, noise and vibration, transport, socio-economics, and landscape and visual impact, and human health.</p>	<p><b>Chapter 19: Air quality, Volume 2</b> of the ES (Document Reference: 6.2.19) and <b>Chapter 21: Noise and vibration, Volume 2</b> of the ES (Document Reference: 6.2.21) utilise data from <b>Chapter: 23: Transport, Volume 2</b> of the ES (Document Reference: 6.2.23) in their assessments.</p> <p>The Construction phase has the highest likelihood of receptor-led effects as several activities take place during this phase (refer to <b>Chapter 4: The Proposed Development, Volume 2</b> (Document Reference: 6.2.4)). Although receptor-led effects will likely be short term and temporary depending on works being completed in vicinity of a receptor.</p> <p>The implementation of the <b>Outline Code of Construction Practice</b> (Application Document Reference: 7.2) and other embedded environmental measures have been considered within the individual aspect assessments which conclude Not Significant effects for noise and vibration, air quality and transport. Significant effects remain for the landscape and visual impact aspect.</p> <p>During the construction phase the onshore cable corridor will unavoidable and significantly affect the landscape character and associated elements (treelines, woodland, hedges, and scrub) within part of 14 LCAs crossed by the onshore cable corridor. The duration of these effects will be short term, occurring within the 3.5 year onshore cable corridor construction phase. During the construction phase there will be significant visual effects on the views experienced by people from transport routes and PRowS. The onshore substation at Oakendene will have a significant effect on the landscape character within which it is located, namely the J3 Cowfold &amp; Shermanbury Farmlands Local Character Area (LCA) throughout the construction, operation and maintenance, and decommissioning phases.</p> <p>During construction of the onshore Oakendene substation and the existing National Grid Bolney substation extension there will be a significant effect on the views experienced by people walking on Public Right of Way (PRow). By Year 10 significant visual effects will be limited to views from PRow 1786 on high ground to the south of the site near Taintfield Wood. Minor to Moderate Adverse (Not Significant) and Moderate to Major Adverse (Significant) effects also remain for socio-economics in relation to the enjoyment of onshore recreational activities (namely PRow users).</p> <p>Overall, there is potential that inter-related effects on residents, open spaces and / or sites may arise at some locations on a temporary basis. However, embedded environmental measures are designed to reduce these effects and it is considered unlikely that any inter-related effects would exceed the significance reported in the individual aspect chapters for noise and vibration, air quality, transport, socio-economics, landscape and visual effects, or human health.</p> <p>Operation and maintenance effects for transport are expected to be limited to occasional site visits and maintenance works. This is expected to result in effects that are <b>Negligible</b> (Not Significant) in EIA terms and they are unlikely to produce significant inter-related receptor-led effects.</p> <p>Decommissioning phase receptor-effects are expected to be broadly similar to the construction phase. Therefore, it is considered unlikely that any inter-related effects will exceed the significance reported in the individual aspect chapters for noise and vibration, air quality, transport, landscape and visual effects, or human health.</p>

**Table 30-19 Transport project-lifetime inter-related effects assessment**

Impact type	Residual effects			Inter-related assessment
	Construction	Operation and maintenance	Decommissioning	
<b>Severance</b>	Negligible / Not Significant	Negligible / Not Significant	Negligible / Not Significant	Potential effects on local drivers as a result of slow moving traffic, severance of routes, pedestrian delay, pedestrian amenity, and road safety associated with the onshore traffic movements of Rampion 2 may occur across the local road network during the construction phase.
<b>Driver delay</b>	Negligible / Not Significant	Negligible / Not Significant	Negligible / Not Significant	During operation and maintenance phase, any effects are likely to be limited and localised (with reduced traffic movements associated with the operation and maintenance phase). Therefore, there would be no significant effects on receptors across the construction and operation phases.
<b>Pedestrian amenity, Pedestrian delay and Fear and intimidation</b>	Negligible / Not Significant	Negligible / Not Significant	Negligible / Not Significant	Effects during decommissioning are uncertain at this stage but would occur after completion of the operation and maintenance phase and would not be continuous with the construction phase effects. Therefore, the transport effects described in <a href="#">Chapter: 23: Transport, Volume 2</a> of the ES (Document Reference: 6.2.23) will be confined to each phase of the Proposed Development.
<b>Accidents and safety</b>	Negligible / Not Significant	Negligible / Not Significant	Negligible / Not Significant	The peaks of the construction and operational and maintenance phases do not overlap temporally, therefore the impacts arising from either phase would also be distinct from one another, and effects would be no greater than (and are likely to be less than) those occurring during construction phase. It is considered unlikely that any project-lifetime inter-related effects will exceed the significance reported in <a href="#">Chapter 22: Terrestrial ecology and nature conservation, Volume 2</a> of the ES (Document Reference: 6.2.22).

**Table 30-20 Ground conditions receptor-led inter-related effects assessment**

Receptor-led effects	Inter-related assessment
<p>Controlled waters (groundwater in superficial deposits / groundwater in bedrock / surface waters (for example, reservoirs, streams, rivers, lakes, and ponds)).</p> <p>Potential for inter-related effects with water environment.</p>	<p>For ground conditions, the highest potential for inter-related effects arises for controlled waters receptors where effects on water quality through mobilisation of contamination assessed in this chapter and effects on water quantity (flow and levels) assessed in <a href="#">Chapter 26: Water environment, Volume 2</a> of the ES (Document Reference: 6.2.26) interact during the construction or decommissioning phases.</p> <p>Taking into account the implementation of the embedded environmental measures (<a href="#">Commitments Register</a> (Document Reference: 7.22), no significant ground conditions or water environment effects are predicted. Therefore, it is considered unlikely that the significance of effects when combined with potential water environment effects on controlled waters would be any greater than that recorded during construction for ground conditions alone.</p>
<p>Human health (construction/ operational workers).</p> <p>Potential for inter-related effects with air quality and noise.</p>	<p><a href="#">Chapter 28: Population and human health, Volume 2</a> of this ES (Document Reference: 6.2.28) has considered the potential impacts from the Proposed Development and has inherently considered the effects on human receptors. This assessment concluded negligible to minor adverse effects that are considered Not Significant in EIA terms across all human health receptors. It is not anticipated that any further receptor-led inter-related effects will occur that are of any greater significance compared to the impacts considered already within the ES chapters.</p> <p>Operation and maintenance effects for ground conditions are expected to be limited to occasional site visits and maintenance works. This is expected to result in effects that are <b>Not Significant</b> in EIA terms and they are unlikely to produce significant inter-related receptor-led effects.</p> <p>Decommissioning phase receptor-effects are expected to be broadly similar to the construction phase. Therefore, it is considered unlikely that any inter-related effects will exceed the significance reported in the individual aspect chapters for noise and vibration, air quality, transport, landscape and visual effects, or human health.</p>



**Table 30-21 Water environment receptor-led inter-related effects assessment**

Receptor-led effects	Inter-related assessment
<p>Inter-related effects on water environment receptors, such as such as WFD water bodies, water dependent conservation sites and water resources.</p>	<p>The assessment of effects on water environment receptors as presented in <a href="#">Chapter 26: Water environment, Volume 2</a> of the ES (Document Reference: 6.2.26) has taken into account the potential for multiple impacts from the Proposed Development affecting these receptors and no significant inter-related effects are anticipated. For example, water quality effects on water environment receptors resulting from mobilisation of ground contaminants have been considered together.</p>
<p>Designated ecological sites.</p>	<p>This chapter does not identify any likely significant effects on the hydrological regimes across designated sites or groundwater dependent terrestrial ecosystems due to the construction, operation and maintenance or decommissioning of the Proposed Development. Therefore, the ecological features that these designated sites and habitats support will also not be subject to likely significant inter-related effects.</p>

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## 30.7 Summary of inter-related effects

30.7.1 **Table 30-22** presents a summary of the inter-related effects assessment on the aspects considered within this ES.

**Table 30-22 Water environment receptor-led inter-related effects assessment**

Aspect	Assessment of inter-related effect	
	Receptor-related	Project-lifetime
<b>Coastal Processes</b>	Not significant <sup>4</sup>	Not significant
<b>Other marine users</b>	Not significant <sup>4</sup>	Not significant
<b>Fish and shellfish</b>	Not significant <sup>4</sup>	Not significant
<b>Benthic, subtidal and intertidal ecology</b>	Not significant <sup>4</sup>	Not significant
<b>Commercial fisheries</b>	Not significant <sup>4</sup>	Not significant <sup>4</sup>
<b>Marine mammals</b>	Not significant	Not significant
<b>Offshore ornithology</b>	Not significant <sup>4</sup>	Not significant
<b>Shipping and navigation</b>	Not significant <sup>4</sup>	Not significant
<b>Civil and military aviation</b>	Not significant <sup>4</sup>	Not significant <sup>4</sup>
<b>Seascape, landscape and visual impact assessment</b>	Not significant	Not significant <sup>4</sup>
<b>Marine arch</b>	Not significant <sup>4</sup>	Not significant <sup>4</sup>
<b>Socio-economics</b>	Not significant <sup>4</sup>	Not significant <sup>4</sup>
<b>Landscape and visual impact assessment</b>	Not significant	Not significant <sup>4</sup>
<b>Air quality</b>	Not significant	Not significant <sup>4</sup>
<b>Soils and agriculture</b>	Not significant	Not significant <sup>4</sup>

<sup>4</sup> The inter-related effects for this have been assessed within the aspect chapter and not within this chapter of the ES.

Aspect	Assessment of inter-related effect	
	Receptor-related	Project-lifetime
Noise and vibration	Not significant	Not significant <sup>4</sup>
Terrestrial ecology	Not significant <sup>4</sup>	Not significant <sup>4</sup>
Transport	Not significant	Not significant
Ground conditions	Not significant	Not significant <sup>4</sup>
Historic environment	Not significant <sup>4</sup>	Not significant <sup>4</sup>
Water environment	Not significant	Not significant <sup>4</sup>
MADS	Not significant <sup>4</sup>	Not significant <sup>4</sup>
Population and human health	Not significant <sup>4</sup>	Not significant <sup>4</sup>
Climate change	Not significant <sup>4</sup>	Not significant <sup>4</sup>

## 30.8 Glossary of terms and abbreviations

Table 30-23 Glossary of terms and abbreviations

Term (acronym)	Definition
<b>BEIS</b>	Business, Energy & Industrial Strategy
<b>CAA</b>	Civil Aviation Authority
<b>CAP</b>	Civil Aviation Publication
<b>COLREGs</b>	Convention on the International Regulations for Preventing Collisions at Sea
<b>DCO</b>	Development Consent Order
<b>DESNZ</b>	Department for Energy Security & Net Zero
<b>EIA</b>	Environmental Impact Assessment
<b>ES</b>	Environmental Statement
<b>HDD</b>	Horizontal Directional Drilling
<b>ICCI</b>	In Combination Climate Impact assessment
<b>INNS</b>	Invasive Non-Native Species
<b>LCA</b>	Landscape Character Area
<b>LVIA</b>	Landscape and visual impact assessment
<b>MCA</b>	Marine Character Area
<b>MHWS</b>	Mean High Water Springs
<b>NPS</b>	National Policy Statement
<b>O&amp;M</b>	Operation and maintenance
<b>Offshore Array Area</b>	The offshore area within which wind turbine generators and offshore platforms and associated cables will be located.
<b>OMU</b>	Other marine users
<b>PEIR</b>	Preliminary Environmental Information Report
<b>PEMP</b>	Project Environmental Management Plan
<b>PINS</b>	Planning Inspectorate

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<b>Term (acronym)</b>	<b>Definition</b>
<b>PRoW</b>	Public Rights of Way
<b>RED</b>	Rampion Extension Development
<b>SCT</b>	Seascape Character Type
<b>Sites of Special Scientific Interest (SSSI)</b>	Statutory Consultation refers to statutory consultation that is required under Section 42 and Section 47 of the Planning Act 2008 with the relevant consultation bodies and the public on the preliminary environmental information.
<b>SLVIA</b>	Seascape, landscape, and visual impact assessment
<b>SMP</b>	Soils Management Plan
<b>Suspended sediment concentration (SSC)</b>	The mass concentration (mass/volume) of sediment in suspension.
<b>WTG</b>	Wind Turbine Generator

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## 30.9 References

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