



**AQUIND Limited**

---

# **AQUIND INTERCONNECTOR**

## **Environmental Statement – Volume 1 – Chapter 30 Summary and Conclusions**

The Planning Act 2008

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

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

Document Ref: 6.1.30

PINS Ref.: EN020022

**AQUIND Limited**

---

# **AQUIND INTERCONNECTOR**

## **Environmental Statement – Volume 1 – Chapter 30 Summary and Conclusions**

**PINS REF.: EN020022**

**DOCUMENT: 6.1.30**

**DATE: 14 NOVEMBER 2019**

WSP

WSP House

70 Chancery Lane

London

WC2A 1AF

+44 20 7314 5000

[www.wsp.com](http://www.wsp.com)

## DOCUMENT

<b>Document</b>	<b>6.1.30 Environmental Statement – Volume 1 – Chapter 30 Summary and Conclusions</b>
<b>Revision</b>	001
<b>Document Owner</b>	WSP UK Limited
<b>Prepared By</b>	E. Niehorster
<b>Date</b>	13 November 2019
<b>Approved</b>	U. Stevenson
<b>Date</b>	13 November 2019

## CONTENTS

<b>30.</b>	<b>SUMMARY AND CONCLUSIONS</b>	<b>30-1</b>
<b>30.1.</b>	<b>INTRODUCTION</b>	<b>30-1</b>
<b>30.2.</b>	<b>SUMMARY</b>	<b>30-1</b>
<b>30.3.</b>	<b>OVERALL SUMMARY</b>	<b>30-15</b>

---

## 30. SUMMARY AND CONCLUSIONS

---

### 30.1. INTRODUCTION

- 30.1.1.1. This Environmental Statement ('ES') presents the assessment of the potential likely significant effects in connection with the Proposed Development.
- 30.1.1.2. Information regarding the evolution of the Proposed Development, including optioneering and site selection, is provided in Chapter 2 (Consideration of Alternatives) and a description of the Proposed Development is outlined in Chapter 3 (Description of the Proposed Development) of the ES Volume 1 (document reference 6.1.2 and 6.1.3 respectively).
- 30.1.1.3. Chapters 6 to 14 of the ES Volume 1 (document reference 6.1.6 to 6.1.14) provide environmental information in relation to the marine aspects of the Proposed Development with respect to the various marine technical disciplines. The marine components assessed within these chapters extend from the Mean High Water Springs ('MHWS') at Eastney to the UK/France Exclusive Economic Zone ('EEZ') Boundary Line (apart from chapters on benthic habitat and marine archaeology).
- 30.1.1.4. Chapters 15 to 26 of the ES Volume 1 (document reference 6.1.15 to 6.1.26) outline environmental information in relation to the onshore aspects of the Proposed Development with regard to the various onshore technical disciplines. The onshore components covered by these chapters extend from the Mean Low Water Springs ('MLWS') to the Converter Station location at Lovedean.
- 30.1.1.5. Chapters 27 to 29 of the ES Volume 1 (document reference 6.1.27 to 6.1.29) outline environmental information relevant to both the onshore and marine components of the Proposed Development.
- 30.1.1.6. Intertidal aspects of the Proposed Development are assessed within the marine chapters, with the exception of intertidal ornithology, which is addressed in Chapter 16 (Onshore Ecology). Both the Water Framework Directive ('WFD') assessments of the ES Volume 3 (document reference 6.3.7.1 and 6.3.20.2) and Habitats Regulations Assessment ('HRA') (document reference 6.8) have been undertaken to assess the marine and onshore components and any relevant overlap between these.

### 30.2. SUMMARY

- 30.2.1.1. The Environmental Impact Assessment ('EIA') process involved an iterative approach to inform the design, and where practicable, measures to mitigate any likely significant environmental effects were incorporated into the design of the Proposed Development to avoid, reduce or offset such effects. The result is such that the design of the Proposed Development includes embedded mitigation.

30.2.1.2. The mitigation measures identified within the technical chapters (Chapters 6 to 29) are outlined in the Mitigation Schedule (document reference 6.6).

30.2.1.3. The following sections provide a summary of the residual effects predicted in respect of the Construction (and decommissioning) and Operational (including repair and maintenance) Stages of the Proposed Development.

### **30.2.2. CHAPTER 6 (PHYSICAL PROCESSES)**

#### **Construction (and decommissioning)**

30.2.2.1. No significant residual effects are anticipated on physical processes resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered physical disturbances to seabed geology and morphology, changes to local sediment regimes and changes to coastal and marine processes including the transport of sediment.

#### **Operation (including repair and maintenance)**

30.2.2.2. No significant residual effects are anticipated on physical processes during the operation of the Proposed Development. The impacts assessed relates to changes to sediment regimes and coastal and marine processes including the transport of sediment.

### **30.2.3. CHAPTER 7 (MARINE WATER AND SEDIMENT QUALITY)**

#### **Construction (and decommissioning)**

30.2.3.1. No significant residual effects are anticipated on marine water and sediment quality resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered the temporary increase in suspended sediment concentration and resuspension of contaminated sediment.

30.2.3.2. A Marine WFD assessment was undertaken for the possible construction (and decommissioning effects) of the Proposed Development (Appendix 7.1 (Marine WFD) of the ES Volume 3 (document reference 6.3.7.1)). The Marine WFD Assessment concluded that there is no potential for deterioration of WFD receptors as a result of marine activities associated with the Proposed Development.

#### **Operation (including repair and maintenance)**

30.2.3.3. No significant residual effects are anticipated on marine water and sediment quality resulting from the operation of the Proposed Development alone. The impacts assessed considered the temporary increase in suspended sediment concentration and resuspension of contaminated sediment.

30.2.3.4. A Marine WFD assessment was undertaken for the possible operational effects of the Proposed Development (Appendix 7.1 (Marine WFD Assessment) of the ES Volume 3 (document reference 6.3.7.1)). The Marine WFD Assessment concluded that there is no potential for deterioration of WFD receptors as a result of marine activities associated with the Proposed Development.

#### **30.2.4. CHAPTER 8 (INTERTIDAL AND BENTHIC HABITATS)**

##### **Construction (and decommissioning)**

30.2.4.1. No significant residual effects are anticipated on intertidal and benthic habitats resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered direct seabed disturbance/temporary habitat loss, temporary increase in suspended sediments, deposition of sediment (smothering) and the resuspension of contaminated sediment.

##### **Operation (including repair and maintenance)**

30.2.4.2. No significant residual are effects anticipated on intertidal and benthic habitats resulting from operation of the Proposed Development. The impacts assessed considered seabed disturbance, permanent habitat loss and heat emissions.

#### **30.2.5. CHAPTER 9 (FISH AND SHELLFISH)**

##### **Construction (and decommissioning)**

30.2.5.1. No significant residual effects are anticipated on fish and shellfish resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered temporary habitat disturbance or loss, temporary increase in suspended sediments (and smothering), entrainment/removal of eggs and larvae and noise and vibration.

##### **Operation (including repair and maintenance)**

30.2.5.2. No significant residual effects are anticipated on fish and shellfish resulting from the operation of the Proposed Development. The impacts assessed considered seabed disturbance (and associated increases in sediment concentrations and deposition), electro-magnetic fields and permanent habitat loss.

#### **30.2.6. CHAPTER 10 (MARINE MAMMALS AND BASKING SHARKS)**

##### **Construction (and decommissioning)**

30.2.6.1. No significant residual effects are anticipated on marine mammals and basking sharks resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered increased noise from the geophysical survey and positioning equipment, potential vibro-hammering and sheet piling.

**Operation (including repair and maintenance)**

- 30.2.6.2. No significant residual effects are anticipated on marine mammals and basking sharks resulting from operation of the Proposed Development. The impacts assessed considered increased noise from the geophysical survey and positioning equipment.

**30.2.7. CHAPTER 11 (MARINE ORNITHOLOGY)**

**Construction (and decommissioning)**

- 30.2.7.1. No significant residual effects are anticipated on marine ornithology resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered disturbance and displacement from plant and vessels, reduce prey availability as a consequence of seabed disturbance/and or loss and exposure to fuels/chemicals due to spills.

**Operation (including repair and maintenance)**

- 30.2.7.2. No significant residual effects are anticipated on marine ornithology resulting from the operation of the Proposed Development. The impacts assessed considered disturbance and displacement from plant and vessels, reduce prey availability as a consequence of seabed disturbance/and or loss and exposure to fuels/chemicals due to spills.

**30.2.8. CHAPTER 12 (COMMERCIAL FISHERIES)**

**Construction (and decommissioning)**

- 30.2.8.1. No significant residual effects are anticipated on commercial fisheries resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered temporary loss or restricted access to established fishing grounds, temporary displacement of fishing activity into other areas, interference to normal fishing activities, navigational safety issues, temporary increases in steaming times and obstacles on the seabed.

**Operation (including repair and maintenance)**

- 30.2.8.2. No significant residual effects are anticipated on commercial fisheries resulting from the operation of the Proposed Development. The impacts assessed considered complete/temporary loss or restricted access to established fishing grounds, complete/temporary displacement of fishing activity into other areas, interference to normal fishing activities, navigational safety issues, temporary increases in steaming times and obstacles on the seabed.



### 30.2.9. CHAPTER 13 (SHIPPING, NAVIGATION AND OTHER MARINE USERS)

#### Construction (and decommissioning)

- 30.2.9.1. No significant residual effects are anticipated on shipping, navigation and other marine users resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered increased collision risk, disruption to vessel routeing/timetables, disruption to ports, disruption to fishing activity, disruption to aggregate dredging activities, disruption to military exercises, disruption to recreational activities, disruption to recreational angling, anchor dragging, emergency anchoring, vessel foundering, dropped objects and fishing gear.

#### Operation (including repair and maintenance)

- 30.2.9.2. No significant residual effects are anticipated on shipping, navigation and other marine users resulting from the operation of the Proposed Development. The impacts assessed considered increased collision risk, disruption to vessel routeing/timetables, disruption to ports, disruption to fishing activity, disruption to aggregate dredging activities, disruption to military exercises, disruption to recreational activities, disruption to recreational angling, anchor dragging, emergency anchoring, vessel foundering, dropped objects, fishing gear snagging and magnetic compass interference.

### 30.2.10. CHAPTER 14 (MARINE ARCHAEOLOGY)

#### Construction (and decommissioning)

- 30.2.10.1. No significant residual effects are anticipated on marine archaeology resulting from construction (and decommissioning) of the Proposed Development. The impacts assessed considered direct and indirect disturbance/damage to known and unknown marine archaeological assets and direct impacts on known and unknown assets from use of anchors by vessels.

#### Operation (including repair and maintenance)

- 30.2.10.2. No significant residual effects are anticipated on marine archaeology resulting from the operation of the Proposed Development. The impacts assessed considered direct and indirect disturbance/damage to known and unknown marine archaeological assets and direct impacts on known and unknown assets from use of anchors by vessels.

## 30.2.11. CHAPTER 15 (LANDSCAPE AND VISUAL AMENITY)

### Construction (and decommissioning)

- 30.2.11.1. For the Converter Station Area, significant residual adverse effects are predicted on landscape character, associated local landscape features, the setting of South Downs National Park ('SDNP') and visual receptors during the Construction Stage. At the Decommissioning Stage there would be significant effects on some landscape character areas, the setting of the SDNP and local landscape features as well as on some residents, recreational and transport users over the duration of the works at the Converter Station Area.
- 30.2.11.2. For the Onshore Cable Corridor, significant residual adverse effects are predicted on some landscape and urban character areas and some local landscape features during construction. Effects on visual amenity and visual receptors are not predicted to be significant. The Decommissioning Stage has been scoped out of the Onshore Cable Corridor assessment.
- 30.2.11.3. For the Landfall, significant residual adverse effects are predicted on landscape features (including tranquillity, footpaths, National Cycle Route 2 and openness) and on visual amenity and visual receptors including residents, recreational and transport users during construction. At the Decommissioning Stage there would likely be a significant residual effect on tranquillity, and on immediate residents and recreational and transport users at the Landfall.

### Operation (including repair and maintenance)

- 30.2.11.4. For the Converter Station Area, significant adverse effects are predicted on landscape character, associated landscape features, the setting of SDNP and visual receptors during operation. As planting matures, the significance of many effects would reduce and would not be significant after 10 years. Effects would remain significant on landscape character of the area and some immediate residents within a 1.2 km radius of the Converter Station Area, and on some recreational and transport users over very localised sections of Public Rights of Way ('PRoW') and roads within a 3 km radius of the Converter Station Area after 20 years.
- 30.2.11.5. Operational effects relating to the Onshore Cable Corridor were not considered, as it was agreed that these were scoped out of the Landscape and Visual Amenity assessment. At the Landfall, significant residual adverse effects are predicted on landscape features (openness), residents and recreational users immediately after the Construction Stage and on commencement of operation. After 10 years, as planting matures there would be no significant effects at the Landfall.

### 30.2.12. CHAPTER 16 (ONSHORE ECOLOGY)

#### Construction (and decommissioning)

30.2.12.1. No significant residual effects are anticipated to onshore ecology features resulting from construction (and decommissioning) of the Proposed Development. The effects that were assessed included:

- effects on ecological features from loss of semi-improved grassland habitat, loss and fragmentation of hedgerows, and fragmentation of foraging and commuting habitat for bats (negligible adverse effect);
- effects on Denmead Meadows and Kings Pond Site of Importance for Nature Conservation ('SINC') (negligible adverse effect);
- effects on wintering birds following assessment of noise impacts (negligible adverse); and
- effects on [REDACTED], reptiles and hedgehogs (negligible).

30.2.12.2. Decommissioning effects are anticipated to be similar to Construction Stage effects, and are therefore not expected to be significant.

#### Operation (including repair and maintenance)

30.2.12.3. No residual effects are anticipated to onshore ecology features during the operation of the Proposed Development.

### 30.2.13. CHAPTER 17 (SOILS AND AGRICULTURAL LAND USE)

#### Construction (and decommissioning)

30.2.13.1. Significant residual adverse effects are anticipated in connection with construction of Sections 1 to 4 of the Onshore Cable Corridor, including the Converter Station Area, due to the temporary loss of agricultural land, with temporary impacts on five farm holdings and permanent impacts on three of those holdings. No significant adverse effects are anticipated due to the temporary and permanent loss of best and most versatile ('BMV') land, the permanent loss of agricultural land, the loss of or damage to soil resources and the temporary impacts on five farm holdings or permanent impacts to two farm holdings. Decommissioning has been scoped out with regards to Soils and Agricultural Land Use.

#### Operation (including repair and maintenance)

30.2.13.2. No significant residual effects are anticipated on soils and agricultural land use from the operation of the Proposed Development, including in relation to the reinstatement of agricultural land and the reinstatement of soil profiles over cable ducts.

### 30.2.14. CHAPTER 18 (GROUND CONDITIONS)

#### Construction (and decommissioning)

- 30.2.14.1. No significant residual effects are anticipated on ground conditions resulting from construction (and decommissioning) of the Proposed Development. The effects assessed included exposure of contaminated soils and groundwater, removal of contaminated soils, and spills associated with construction works.

#### Operation (including repair and maintenance)

- 30.2.14.2. No significant residual effects are anticipated on ground conditions during operation of the Proposed Development. The effects assessed included exposure to potentially contaminated soils or groundwater and deterioration of concrete due to aggressive ground conditions.

### 30.2.15. CHAPTER 19 (GROUNDWATER)

#### Construction (and decommissioning)

- 30.2.15.1. Significant residual effects are predicted associated with the potential requirement for dewatering of chalk groundwater aquifers in Section 4, 5, 6 and 7 during construction of the trenched parts of the Onshore Cable Corridor (if required). The effect is predicted to be moderate adverse on various chalk aquifers. For the remaining Sections of the Onshore Cable Corridor, the groundwater dewatering impacts are not significant. There are no other significant quantity or quality groundwater effects related to the construction of the Converter Station Area, the Onshore Cables or the Landfall. The decommissioning of the Proposed Development is anticipated to result in similar effects to construction, as a worst-case scenario, and is therefore potentially significant.

#### Operation (including repair and maintenance)

- 30.2.15.2. No significant residual effects are anticipated on groundwater during operation of the Proposed Development. The impacts assessed considered groundwater quantity and quality in relation to the Converter Station, the Onshore Cable Corridor and the Landfall.

### 30.2.16. CHAPTER 20 (SURFACE WATER RESOURCES AND FLOOD RISK)

#### Construction (and decommissioning)

- 30.2.16.1. No significant residual effects are anticipated on surface water resources and flood receptors resulting from construction (and decommissioning) of the Proposed Development. Impacts assessed comprised change to surface water receptors with regards to surface water drainage patterns and water quality, water supply and wastewater infrastructure, and human receptors and associated infrastructure with regards to the flood risk profile.

- 30.2.16.2. In addition, an onshore WFD assessment was undertaken to assess the potential impacts on the Proposed Development on the WFD groundwater and surface water bodies within the study area (Appendix 20.2 (Onshore WFD Assessment) of the ES Volume 3 (document reference 6.3.20.2). The assessment concluded that the impacts of the Proposed Development are compliant with the WFD when the mitigation measures are taken into account, as provided for in the Onshore Outline Construction Environmental Management Plan (document reference 6.9).

**Operation (including repair and maintenance)**

- 30.2.16.3. No significant residual effects are anticipated on surface water resources and flood receptors during operation of the Proposed Development. Impacts assessed included changes to surface water receptors with regards to surface water drainage patterns and water quality, water supply and wastewater infrastructure, and human receptors and associated infrastructure with regards to the flood risk profile.

**30.2.17. CHAPTER 21 (HERITAGE AND ARCHAEOLOGY)**

**Construction (and decommissioning)**

- 30.2.17.1. No significant residual effects are anticipated to heritage and archaeology resulting from construction (and decommissioning) of the Proposed Development. The effects assessed included the partial or complete loss to buried heritage assets as a result of the Proposed Development.

**Operation (including repair and maintenance)**

- 30.2.17.2. No significant effects are anticipated on heritage and archaeology during the operation of the Proposed Development. A residual effect that is not significant (minor adverse) is expected due to changes to the setting of Scotland Cottage due to the introduction of the Converter Station Area into the landscape.

**30.2.18. CHAPTER 22 (TRAFFIC AND TRANSPORT)**

**Construction (and decommissioning)**

- 30.2.18.1. Significant residual adverse effects are anticipated in the vicinity of the Converter Station Area (within Section 1 and 2) during construction (and decommissioning) of the Proposed Development, due to a combination of severance, changes to pedestrian and cycle amenity, traffic delay and fear and intimidation.
- 30.2.18.2. Significant residual adverse effects are anticipated in the vicinity of the Onshore Cable Corridor and the wider study area, within Sections 3-10, during construction (and decommissioning) of the Proposed Development due to a combination of severance, changes to pedestrian and cycle amenity, traffic delay, fear and intimidation and accidents and safety.

30.2.18.3. Effects of decommissioning the Proposed Development are expected to be similar to the Construction Stage effects as a worst case, and therefore significant effects are anticipated.

**Operation (including repair and maintenance)**

30.2.18.4. The operational assessment of traffic and transport has been scoped out of the assessment.

**30.2.19. CHAPTER 23 (AIR QUALITY)**

**Construction (and decommissioning)**

30.2.19.1. No significant residual effects are anticipated related to air quality resulting from construction (and decommissioning) of the Proposed Development. The effects assessed included changes to air quality anticipated due to non-construction related traffic (i.e traffic using alternative routes as a result of diversions, road closures and other traffic management), construction stage local power generation, construction site activities and generated construction traffic.

**Operation (including repair and maintenance)**

30.2.19.2. No significant residual effects are anticipated in relation to air quality during operation of the Proposed Development. The operational effects assessed included changes to air quality resulting from the back-up power generation for the Optical Regeneration Station(s) ('ORS').

**30.2.20. CHAPTER 24 (NOISE AND VIBRATION)**

**Construction (and decommissioning)**

30.2.20.1. In Section 4 (Hambledon Road to Farlington Avenue) a significant adverse residual effect (major) is predicted during weekend daytime construction works on London Road, if works occur over consecutive weekends. If works occur over non-consecutive weekends, no significant effects are expected.

30.2.20.2. In Section 5 (Farlington) a significant adverse residual effect (major) is predicted if construction works on Havant Road occur during the night. A significant adverse residual effect (major) is also predicted if these works occur during the daytime across consecutive weekends. If these works occur during the daytime across non-consecutive weekends, no significant effects are expected.

30.2.20.3. In Section 8 (Eastern Road (adjacent to Great Salterns Golf Course) to Moorings Way) a significant adverse residual effect (major) is predicted during weekday evening, weekend daytime and night-time construction works on Eastern Road outside the Harbourside Caravan Park. If works outside the Caravan Park were limited to weekday daytimes (07:00 to 19:00 hours), significant effects could be avoided.

30.2.20.4. No significant noise and vibration related effects are anticipated from other construction activities or during decommissioning of the Proposed Development.

**Operation (including repair and maintenance)**

30.2.20.5. No significant residual effects are anticipated from the operation of the Proposed Development as a result of the operational noise from the Converter Station or Telecommunications Building(s) at Lovedean, or from the ORS' at the Landfall.

**30.2.21. CHAPTER 25 (SOCIO-ECONOMICS)**

**Construction (and decommissioning)**

30.2.21.1. Significant adverse effects are predicted during the construction of the Proposed Development due to:

- Temporary loss of recreational areas at Farlington Playing Fields and Bransbury Park (moderate); and
- Temporary disruption from changes to access, traffic, noise, air and visual amenity for tourist receptors for visitors to Southsea Leisure Park, Victorious Festival and South Central Festival (moderate).

30.2.21.2. No significant residual effects are anticipated due to:

- Disruption from changes to access, traffic, noise, air and visual amenity on residences, community facilities and businesses;
- Temporary loss of access or outside space for businesses;
- Temporary disruption from changes to access, traffic, noise, air and visual amenity for tourist receptors and events; and
- Diversion of PRoW and long-distance paths.

30.2.21.3. A beneficial effect is expected for regional and national employment generation.

30.2.21.4. Effects due to decommissioning are expected to be similar to the Construction Stage effects as a worst case, and therefore potentially significant.

**Operation (including repair and maintenance)**

30.2.21.5. Significant adverse effects are anticipated from the operation of the Proposed Development due to loss of amenity for pedestrians on PRoW in proximity to the Converter Station (moderate to minor- moderate). No other significant adverse effects are anticipated in connection with the operation of the Proposed Development.

## **30.2.22. CHAPTER 26 (HUMAN HEALTH)**

### **Construction (and decommissioning)**

- 30.2.22.1. Residual significant adverse effects are predicted on health during the construction of the Proposed Development due to the generation of noise emissions during the construction of the Onshore Cables. No significant residual effects are anticipated on health due to emissions of pollutants to air; changes to landscape and green space; changes in the local business activity and employment; contact with contaminated soil/land and water, and changes to local transport and access to community facilities. No significant residual effects are expected due to the decommissioning of the Proposed Development.

### **Operation (including repair and maintenance)**

- 30.2.22.2. No residual significant effects are anticipated from the operation of the Proposed Development. Emissions of pollutants to air and generation of noise; changes to landscape and green space; perceived fear of harm from electro-magnetic field exposure; and changes local transport and access to community facilities were assessed as minor adverse or negligible and therefore not significant.

## **30.2.23. CHAPTER 27 (WASTE AND MATERIAL RESOURCES)**

### **Construction (and decommissioning)**

- 30.2.23.1. Potential significant adverse effects are predicted to arise during construction due to the requirement for specialist rock material for the marine components of the Proposed Development.
- 30.2.23.2. No residual significant adverse effects are anticipated from material consumption during site remediation and preparation. Adverse effects from disposal of waste to landfill during site remediation, preparation and construction are not anticipated to be significant.
- 30.2.23.3. Decommissioning of the Proposed Development has been scoped out of the waste and material resources assessment.

### **Operation (including repair and maintenance)**

- 30.2.23.4. Significant adverse effects from material resource consumption are forecast across the operational life, from the requirement to consume specialist rock material for the Marine Cable. No residual significant adverse effects are anticipated from disposal of waste to landfill during the first year of operation of the Proposed Development.



## 30.2.24. CHAPTER 28 (CARBON AND CLIMATE CHANGE)

### Construction (and decommissioning)

30.2.24.1. Significant adverse (minor) effects are anticipated due to greenhouse gas emissions in connection with construction of the Proposed Development. Decommissioning of the Proposed Development was scoped out of the assessment of carbon emissions.

30.2.24.2. No significant effects are anticipated due to the impacts of climate change in connection with the construction of the Proposed Development. Effects of climate change due to decommissioning are expected to be similar to the Construction Stage as a worst-case, and therefore not significant.

### Operation (including repair and maintenance)

30.2.24.3. Significant beneficial effects (moderate) are predicted to arise during the Operational Stage. The net CO<sub>2</sub> emissions due to the Proposed Development, over its minimum 40 year lifespan (from construction and operation), are expected to be approximately -1,272,000 tCO<sub>2</sub>e, due to the change in emissions from the generation plant due to energy transfers between UK and France.

30.2.24.4. No significant effects are anticipated due to the effects of climate change on the operation of the Proposed Development.

## CHAPTER 29 (CUMULATIVE EFFECTS)

### Construction (and decommissioning) – Inter-Project Effects

#### Marine

30.2.24.5. In relation to the marine components of the Proposed Development (Chapters 6 - 14), no significant residual cumulative effects were predicted to result from the cumulative contribution of impacts from the Proposed Development with other projects during the Construction (and decommissioning) Stage.

#### Onshore

30.2.24.6. In relation to the onshore components of the Proposed Development (Chapters 15 - 26) and those chapters which consider both onshore and marine components of the Proposed Development (Chapters 27 and 28), significant residual cumulative effects were predicted to result from the cumulative contribution of impacts from the Proposed Development with other projects during the Construction (and decommissioning) Stage for Onshore Ecology, Landscape and Visual Amenity and Waste and Material Resources. The significant cumulative effects were identified in relation to the following developments:

- Onshore Ecology:
  - 68 Land to the south of Old Mill Lane and east/south-east of The Haven (19/01071/FUL).
- Landscape and Visual Amenity:

- 67 Land South of Lovedean Electricity Substation (57524/001); and
- 68 Land to the south of Old Mill Lane and east/south-east of The Haven (19/01071/FUL).
- Waste and Materials:
  - 74 Southsea Seafront from Long Curtain Moat in the West to Eastney Marine Barracks in the East (19/01097/FUL).

30.2.24.7. No other significant cumulative effects have been identified for the onshore development.

### **Operation (including repair and maintenance) – Inter-Project Effects**

#### **Marine**

30.2.24.8. In relation to the marine components of the Proposed Development (Chapters 6 - 14), no significant residual cumulative effects were predicted to result from the cumulative contribution of impacts from the Proposed Development with other projects during the Operational Stage (including repair and maintenance).

#### **Onshore**

30.2.24.9. In relation to the onshore components of the Proposed Development (Chapters 15 - 26) and those chapters which consider both onshore and marine components of the Proposed Development (Chapters 27 and 28), significant effects from the Operational Stage have been identified for Landscape and Visual Amenity. Significant cumulative effects have been identified in relation to the following developments:

- 67 Land South of Lovedean Electricity Substation (57524/001); and
- 68 Land to the south of Old Mill Lane and east/south-east of The Haven (19/01071/FUL).

### **Intra-Project Effects**

30.2.24.10. No significant residual effects are expected due to intra-project effects. A number of intra-project effects have been identified for both offshore and onshore receptors, however, the interrelationship of effects on these receptors are not considered to result in an additive or synergistic effect, that would alter the conclusions made in the environmental topic chapter assessments.

### **Transboundary Effects**

30.2.24.11. No significant residual effects are predicted due to transboundary effects. Chapters 6-14 (the marine chapters) have assessed the potential likely significant transboundary effects arising from the Proposed Development within each topic chapter.

30.2.24.12. Transboundary effects have not been identified in connection with the onshore components of the Proposed Development (chapters 15-26) as sensitive receptors are likely to be limited to the UK terrestrial environment.

30.2.24.13. Chapters 27 (Waste and Material Resources) and Chapter 28 (Carbon and Climate Change) were scoped out of the transboundary assessment.

### **30.3. OVERALL SUMMARY**

30.3.1.1. The significant adverse effects anticipated during construction of the Proposed Development comprise:

- Effects on landscape character, associated local landscape features, the setting of SDNP or visual amenity and visual receptors at the Converter Station Area, the Onshore Cable Corridor and the Landfall at Eastney (see Chapter 15 (Landscape and Visual Amenity)).
- Effects due to the temporary loss of agricultural land, the temporary impacts on five farm holdings and the permanent impacts on three of those holdings (see Chapter 17 (Soils and Agricultural Land Use)).
- Effects associated with the potential requirement for dewatering of groundwater aquifers in Section 4, 5, 6 and 7 during construction of the Onshore Cable Corridor (see Chapter 19 (Groundwater)).
- Effects related to severance, changes to pedestrian and cycle amenity, traffic delay and fear and intimidation in Sections 1 and 2 (see Chapter 22 (Traffic and Transport)).
- Effects related to severance, changes to pedestrian and cycle amenity, traffic delay, fear and intimidation and accidents and safety in Sections 3-10 (see Chapter 22 (Traffic and Transport)).
- Effects from noise impacts during evening, night-time and/or weekend construction works in Section 4, 5 and 8 (see Chapter 24 (Noise and Vibration)).
- Effects are predicted due to the temporary loss of recreational areas and temporary disruption from changes to access, traffic, noise, air and visual amenity for tourist receptors (see Chapter 25 (Socio-economics)).
- Effects on health due to the generation of noise emissions from construction of the Onshore Cable Route (see Chapter 26 (Human Health)).
- Effects due to the requirement for specialist rock material for the marine components of the Proposed Development (see Chapter 27 (Waste and Material Resources)).
- Effects of greenhouse gas emissions during construction of the Proposed Development (see Chapter 28 (Carbon and Climate Change)).

- Effects due to inter-project cumulative effects associated with Onshore Ecology, Landscape and Visual Amenity and Waste and Material Resources (see Chapter (29 Cumulative Effects)).

30.3.1.2. The significant adverse effects anticipated during decommissioning, as a potential worst-case, of the Proposed Development comprise:

- Effects on some landscape character areas, the setting of the SDNP and local landscape features as well as on some residents, recreational and transport users over the duration of the works at the Converter Station Area (see Chapter 15 (Landscape and Visual Amenity)).
- Effects on tranquillity and on immediate residents and recreational and transport users at the Landfall at Eastney (see Chapter 15 (Landscape and Visual Amenity)).
- Effects associated with the potential requirement for dewatering of groundwater aquifers in Section 4, 5, 6 and 7 during decommissioning of the Onshore Cable Corridor (see Chapter 19 (Groundwater)).
- Effects related to severance, changes to pedestrian and cycle amenity, traffic delay and fear and intimidation in Sections 1 and 2 (see Chapter 22 (Traffic and Transport)).
- Effects related to severance, changes to pedestrian and cycle amenity, traffic delay, fear and intimidation and accidents and safety in Sections 3-10 (see Chapter 22 (Traffic and Transport)).
- Effects are predicted due to the temporary loss of recreational areas and temporary disruption from changes to access, traffic, noise, air and visual amenity for tourist receptors (see Chapter 25 (Socio-economics)).

30.3.1.3. The significant adverse effects anticipated during operation of the Proposed Development comprise:

- Effects on landscape character, associated landscape features, the setting of SDNP and visual receptors for the Converter Station Area. As planting matures, the significance of many effects would reduce and would not be significant after 10 years. Effects would remain significant on landscape character of the area and some immediate residents within a 1.2 km radius of the Converter Station Area, and on some recreational and transport users over very localised sections of PRoW and roads within a 3 km radius of the Converter Station Area after 20 years (see Chapter 15 (Landscape and Visual Amenity)).
- Effects on landscape features (openness), residents and recreational users immediately after construction and on commencement of operation at the Landfall

at Eastney. After 10 years, as planting matures there would be no significant effects at the Landfall (see Chapter 15 (Landscape and Visual Amenity)).

- Effects from loss of amenity for pedestrians on PRow at the Converter Station (see Chapter 25 (Socio-economics)).
- Effects from material resource consumption from the requirement to consume specialist rock material for the Marine Cable (see Chapter 27 (Waste and Material Resources)).
- Effects from inter-project cumulative effects associated with Landscape and Visual Amenity (see Chapter 29 (Cumulative Effects)).

30.3.1.4. The net CO<sub>2</sub> emissions of the Proposed Development, over its minimum 40 year lifespan (from construction and operation), are expected to be approximately - 1,272,000 tCO<sub>2</sub>e, due to the change in emissions from the generation plant due to energy transfers between UK and France. As outlined in Chapter 28 (Carbon and Climate Change), the Proposed Development will result in moderate, significant, beneficial effects.

