

# **CLEVE HILL SOLAR PARK**

# ENVIRONMENTAL STATEMENT VOLUME 1 - CHAPTERS

CHAPTER 13 - SOCIOECONOMICS, TOURISM, RECREATION AND LAND USE

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# 13 SOCIO-ECONOMICS, TOURISM, RECREATION AND LAND USE

#### 13.1 Introduction

- 1. This chapter of the Environmental Statement evaluates the likely effects of the proposed Cleve Hill Solar Park (the Development) as described in Chapter 5: Development Description on the socio-economic, tourism, recreation and land use interests within and around the site. The scope of the assessment has been determined through consultation and professional judgement.
- 2. This chapter is supported by the following figure, provided in Volume 2 (DCO Document Reference 6.2.13):
  - Figure 13.1: Recreation Receptors.
- 3. This chapter is also supported by the following technical appendix, provided in Volume 4 (DCO Document Reference 6.4.13):
  - Technical Appendix A13.1: Soils and Agricultural Use and Quality Report.

# 13.1.1 Scoping Responses and Consultation

- 4. As part of the EIA scoping process a number of relevant organisations were contacted by the Planning Inspectorate. Table 13.1a outlines the responses received relating to the potential effects considered in this chapter.
- 5. Following issuance of the Preliminary Environmental Information Report (PEIR) in May 2018, Section 42 consultation was carried out and responses received. These are documented in the Consultation Report submitted along with the DCO application. A summary of key Section 42 consultation responses, which led or contributed to a change in design of the Development, or a change in the assessment reported in this chapter, is provided in Table 13.1b.

Table 13.1a Summary of Scoping Opinion Responses

Consultee	Response by Consultee	Applicant Response
The Planning Inspectorate	Considering the nature and location of the Proposed Development, the Inspectorate is content that impacts to tourism, recreation and land use during decommissioning are unlikely to be significant and can be scoped out of the ES.	The decommissioning phase has not been included in this assessment.
	The chapter should identify specific guidance documents which have been utilised for the assessment. It should be clear how professional judgement has been applied.	Guidance documents are cited in section 13.2.4 and the use of professional judgement is detailed in section 13.2.
	The ES should clearly set out Study Area and include clear justification.	Study Areas for each aspect of the chapter are outlined in section 13.2.
	Any impact likely to result in significant effect(s) on the users of other types of recreational receptors in the surrounding area should also be assessed including nature reserves.	Receptors are detailed in section 13.3 including wildlife designations.
	Resulting impacts of any temporary diversions of PRoW should be assessed.	Measures are proposed and residual effects assessed in section 13.6.



Consultee	Response by Consultee	Applicant Response	
	The ES should quantify the agricultural land which would be temporarily and permanently lost as a result of the Proposed Development (by ALC grade) and assess any impacts that may result in likely significant effects.	Current Agricultural Land Use is defined in section 13.3.5 and effects assessed in section 13.5.1.5.	
Kent County Council	In order to monitor path use before, during and after construction phase of the proposal, it is requested that people counters are installed on the PRoWs at key gateway locations. Data obtained from these counters can then be used to assess the impact of the Solar Park. It is recommended that electronic people counter sensors are installed (instead of manual surveys) as these counters will be able to operate 24 hours a day and will capture sporadic path users.	People counters on the public rights of way were used in a survey conducted during July and August 2018. These are reported in the ES, in chapter 13, section 13.3.4.	

Table 13.1b Summary of Key Section 42 Consultation Responses

Consultee	Summary of Response by Consultee	Applicant Response
Graveney with Goodnestone Parish Council	The parish council strongly supports KCC's suggestion that people counters on public rights of way at key gateway locations should be utilised to gather data on tourist recreational use of the site.	People counters on the public rights of way were used in a survey conducted during July and August 2018. These are reported in the ES, in chapter 13, section 13.3.4.
Swale Borough Council	The chapter should consider potential effects on the England Coast Path, as being developed by Natural England.	The England Coast Path, and specifically the Whitstable to Iwade section, Chapter 1: Whitstable Harbour to Nagden, is fully considered in the ES, Chapter 13, section 13.5.2.2. It is noted that no changes to the Saxon Shore Way are planned for when the route is adopted as part of the England Coast Path, and hence the assessment remains the same for both paths.
The Faversham Society	For the footpath through the site from Nagden Cottage to the seawall near Castle Coote, the entire path would run between lines of solar panels that are around 4 metres high so that a walker would not be able to see over them, only along and drainage ditches and when crossing the spine road. Any additional permissive paths provided as part of the development would have similar views. For the sea wall which is the Saxon Shore Way, the location of the panels has been altered so that they would be set back 60 metres from the path.	There would be substantial horizontal separation between the path and the solar panels, including an increase in this separation since PEIR, such that the footpath will be within a corridor of width c. 20-30 m between panels. It is the case that the panels are likely to be higher than walkers on the paths that run through the site, and long-distance views will be occasional, as views along gaps between the rows arise. This is acknowledged as a change from the baseline in the ES, chapter 7, landscape and visual.



#### 13.1.2 Development Parameters Assessed

- 6. The Rochdale Envelope parameters for the Development have been considered with respect to the potential effects considered in this chapter, and worst-case values/scenarios for this are captured by the candidate design, as set out in Chapter 5: Development Description. This chapter reports the assessment of effects associated with the candidate design, therefore.
- 7. For the alternative scenarios presented in the ES i.e., for site access and for energy storage technology, the choice of scenario does not affect this assessment.

# 13.2 Assessment Methodology and Significance Criteria

- 8. The Infrastructure Planning (Environment Impact Assessment) Regulations 2017<sup>1</sup> state that an ES should contain:
  - "A description of the factors specified in regulation 5(2) likely to be significantly affected by the development: population"
- 9. This chapter therefore assesses socio-economic, tourism, recreation and land use effects upon the relevant, affected population. This section sets out the assessment methodologies, the relevant legislation, policy and guidance and provides a review of relevant literature. The baseline conditions are described, followed by an assessment of the likely effects (both positive and negative) of the Development. The assessment has been carried out through desktop studies and consultations with further details in the following subsections.

# 13.2.1 Socio-economics and Tourism Assessment Methodology

# 13.2.1.1 Scope

- 10. The scope of the socio-economic and tourism assessment is in accordance with the EIA Scoping Report<sup>2</sup> submitted by the Applicant, and the subsequent EIA Scoping Opinion<sup>3</sup> provided by the Planning Inspectorate.
- 11. The absolute scale of effects on employment and Gross Value Added (GVA) is likely to be limited.
- During the construction phase a large proportion of components and infrastructure are likely to be sourced from outside of the UK, so the effects associated with this activity will be limited to certain activities. Nevertheless, this is scoped into the assessment as there is the potential for the local economy to secure significant benefits given the proposed scale of the Development.
- 13. The case for scoping in effects on the local economy, skills and employees during the construction phase is nevertheless marginal. However, without assessing these impacts, it is not possible to come to a judgement on how elements of the Development will be procured and constructed and what the pattern of supply chain expenditure is likely to be. In light of this uncertainty, effects on the local economy, skills and employees are included in the assessment.

<sup>&</sup>lt;sup>1</sup> The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, Available online at: <a href="http://www.legislation.gov.uk/uksi/2017/572/contents/made">http://www.legislation.gov.uk/uksi/2017/572/contents/made</a> [accessed 22/05/2017]

<sup>&</sup>lt;sup>2</sup> https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010085/EN010085-000027-CHSP%20-%20Scoping%20Report.pdf (DCO Document Reference 6.4.3.1).

<sup>&</sup>lt;sup>3</sup> https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010085/EN010085-000033-CHSP%20-%20Scoping%20Opinion.pdf (DCO Document Reference 6.4.3.2).



- 14. The ongoing employment associated with the operation of the Development is also likely to be more modest and as agreed in the EIA Scoping Opinion, this is scoped out of the assessment.
- 15. It has been agreed that effects on the tourism economy are scoped in to both the construction phase and the operational phase given its potential sensitivity in the local area.
- 16. Decommissioning effects are likely to be similar to the construction phase effects, though without the sourcing of components required during construction. Given the absence of reliable baseline data at a realistic date in the future for decommissioning, and given that the effects will be similar in nature but lesser in magnitude, adverse decommissioning effects have been assumed to be equivalent to construction phase effects, and beneficial decommissioning effects have been assumed to be of the same nature as construction phase effects but not significant (where appropriate).

# 13.2.1.2 Study Areas and Receptors

- 17. The socio-economic assessment needs to consider the extent to which the effects set out above will materialise within three primary study areas:
  - The local authority area in which the Development is located principally Swale Borough Council area (referred to throughout this Chapter as "Swale");<sup>4</sup>
  - The adjacent local authority area Canterbury City Council area (referred to throughout this chapter as "the Canterbury area");
  - The county area Kent County Council area (referred to throughout this Chapter as "Kent"); and
  - The national study area England.
- 18. For tourism receptors, the study areas are more localised, *i.e.*, just the local authority areas and potentially a smaller area in the immediate vicinity of the site. The definition of this study area has been determined with reference to the visual, noise and traffic effects assessment (as all three are relevant considerations).
- 19. The selection of receptors that could be subject to likely significant effects has been informed by the initial baseline analysis, as well as consideration of evidence on socio-economic effects associated with the construction and operation of similar developments. The receptors that have been identified are detailed in Table 13.2.

Table 13.2 Socio-economics & Tourism Receptors

Receptor		Indicator	Study Areas	
Economy	The size, diversity and	GVA	Swale Kent England	
	prosperity of the local economy	Employment		
	People in employment or	Labour Supply & Skills	Swale	
seeking employment		Economic Activity & Unemployment	Kent England	
Tourism Economy	The visitor economy in Swale	Tourism Employment	Swale Kent	
		Specific tourism assets and attractions		
		Volume and Value of Tourism		

<sup>&</sup>lt;sup>4</sup> Although the boundary extends into the local authority area of Canterbury, this is for reasons of maintenance of existing flood defences and conservation management objectives, and no development is proposed there.



20. Direct and indirect effects on these receptors will be assessed for both the construction and operational phases of the Development.

#### 13.2.1.3 Baseline Data Sources

21. Table 13.3 describes the list of data sources used in establishing the socio-economic and tourism baseline.

Table 13.3 Baseline Data Sources

Receptor		Source	
Economy	GVA	ONS <sup>5</sup> , Gross Value Added (balanced approach), 2016	
	Employment	ONS, Business Register & Employment Survey, 2016	
	Labour Supply & Skills	ONS, Mid-Year Population Estimates, 2016; DCLG, 2014 Based Sub National Population Projections; ONS, Census 2011	
	Economic Activity & Unemployment	ONS, Annual Population Survey, 2017	
Tourism	Tourism	ONS, Business Register & Employment Survey, 2016;	
	Employment	Destination Research, Economic Impact of Tourism: Swale – 2015 Results, 2016	
	Specific tourism assets and attractions	Consultation with Swale and KCC local authority and desk-based research	
	Volume and Value of Tourism	Destination Research, Economic Impact of Tourism: Swale – 2015 Results, 2016	

22. In addition to the scoping consultation detailed in section 13.1, Table 13.4 details the further consultation that has been undertaken to inform the socio-economic and tourism assessment.

Table 13.4 Additional Consultation Undertaken

Consultee	Information obtained	
Lynn Newton, Economy and Community Services Manager, Swale BC	Telephone call - 20/04/18  Key local tourism assets  Strategic aspirations for the tourism sector locally  Review of evidence base	
Sarah Wren, Principal Project Officer, Growth, Environment and Transport, Kent CC	Telephone call and email correspondence – 26/04/18 – 27/04/18  Key tourism aspirations and future developments in the county	

#### 13.2.1.4 Sensitivity of Receptor

23. The framework for assessing the sensitivity of each socio-economic receptor is outlined in Table 13.5. The assessment requires professional judgment and takes account of the importance attached to each receptor in local and regional economic development, regeneration policy, *i.e.*, where specific socio-economic issues have been prioritised by policy makers (*e.g.*, lack of employment opportunities, growth of a particular employment sector), as well as drawing on analysis within the socio-economic and visitor economy baseline about the scale of these receptors.

<sup>&</sup>lt;sup>5</sup> ONS: the UK Government's Office of National Statistics



Table 13.5 Sensitivity of Socio-Economic Receptors

Sensitivity	Criteria	Examples of measures relating to the identified criteria
High	Receptor is accorded a high priority in local, regional and national economic development and regeneration policy.	Identified as a key thematic ( <i>e.g.</i> , low levels of wealth creation across an economy) or spatial ( <i>e.g.</i> , pockets of deprivation in particular localities) socio-economic priority. These priorities may also be informed by the economic potential and/or need to achieve change on a particular socio-economic measure.  Evidence of severe or major socio-economic challenges, under-performance or vulnerability <i>e.g.</i> , patterns of deprivation, employment and wealth generation, employment forecasts, exposure to socio-economic threats.
Medium	Receptor is accorded a medium priority in local, regional and national economic development and regeneration policy.	Not identified as a key thematic or spatial priority (as a result of economic potential and/or need).  Evidence of significant socio-economic challenges, underperformance or vulnerability.
Low	Receptor is accorded a low priority in local, regional and national economic development and regeneration policy.	Not identified as a key thematic or spatial priority (as a result of economic potential and/or need).  Evidence of economic prosperity, buoyancy and resilience e.g., low levels of deprivation, high employment and average wealth per head, relatively strong employment forecasts.
Negligible	Receptor is accorded no priority in local, regional and national economic development and regeneration policy.	Not identified as a key thematic or spatial priority (as a result of economic potential and/or need).  Evidence of low or insignificant.

# 13.2.1.5 Magnitude of Effect

24. Table 13.6 outlines the methodology that will be used to determine the absolute scale of effects on each receptor during the construction and operational phases of the Development.

Table 13.6 Scale of Effect

Receptor		Indicator	Method for Assessing Scale of Effect
Economy	The size, diversity and prosperity of the local economy	GVA Employment	<ul> <li>Absolute effect on GVA and employment calculated using an economic impact model.</li> <li>Key inputs to this will be estimates of direct construction expenditure and assumptions about the pattern of sourcing of key</li> </ul>
			components and services (informed by consultation with Applicant).
			Indirect effects modelled using national and derived regional and local multipliers (the



Receptor		Indicator	Method for Assessing Scale of Effect
			selection of these to be informed by consultation with Applicant).
	People in employment	Labour Supply & Skills	The potential effect on unemployment and skills will be assessed in light of the absolute
	or seeking employment	Economic Activity & Unemployment	level of direct and indirect employment generated by the Development.
Tourism Economy	The visitor economy in	Tourism Employment	<ul><li>Review of chapters 7, 12 and 14.</li><li>Develop list of any significant effects for</li></ul>
	Swale	Specific tourism assets and attractions	consideration in the assessment of tourism effects.
		Volume and Value of Tourism	

25. The magnitude of effect will then be determined with reference to the baseline conditions, using the criteria provided in Table 13.7.

Table 13.7 Assessing Magnitude

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Magnitude of Effect (including positive or negative)	Description			
High	Proposals would cause a large change – judged beneficial or adverse - to baseline socio-economic conditions in terms of absolute and/or percentage change.			
Medium	Proposals would cause a moderate change – judged as beneficial or adverse - to existing socio-economic conditions in terms of absolute and/or percentage change.			
Low	Proposals would cause a slight change – judged as beneficial or adverse - to existing socio-economic conditions in terms of absolute and/or percentage change.			
Negligible	No discernible change, either way, in baseline socio-economic conditions.			

# 13.2.1.6 Significance of Effects

26. The sensitivity and magnitude will be used to inform the significance of effects using a matrix provided in Table 13.8:

Table 13.8 Significance Matrix

Degree of Alteration Sensitivity of receptor	Negligible	Low	Medium	High
Negligible	Negligible	Negligible	Negligible	Negligible
Low	Negligible	Minor	Minor	Moderate
Medium	Negligible	Minor	Moderate	Major
High	Negligible	Moderate	Major	Major

27. The effects shaded in grey are seen as significant in EIA terms.



#### 13.2.1.7 Assessment of Cumulative Effects

- 28. Cumulative effects of other developments are considered as part of the assessment. A list of cumulative schemes that are considered in the cumulative assessment is provided in Chapter 2: Environmental Impact Assessment.
- 29. The cumulative assessment for the economy receptors considers the effect of these developments on supply chain and labour market capacity and capability in the study areas and the extent to which this might interfere with the Applicant's ability to source key goods and services from within the study areas.
- 30. For the tourism economy receptor, the cumulative assessment will draw upon the cumulative assessments of the other chapters to consider the overall scale of cumulative effects on the tourism economy.

# 13.2.2 Recreation and Land Use Assessment Methodology

# 13.2.2.1 Scope

- 31. Direct and indirect effects on recreation receptors and effects on land use will be assessed for both the construction and operational phases of the Development. Indirect effects are largely assessed in other chapters but are appropriately cross referenced in this chapter.
- 32. During decommissioning, effects will be similar but of a lesser magnitude to construction effects, and so are not assessed.

# 13.2.2.2 Study Areas

- 33. For land use, effects will change only land use within the Development site, and this study area is defined as the Recreation Core Study Area, as shown on Figure 13.1.
- 34. For assessing recreational receptors, a study area of 1 km outside the Recreation Core Study Area has been chosen as it is considered that this will adequately present the extent of recreational receptors used within the vicinity of the Development. This is defined as the Recreation Wider Study Area, as shown on Figure 13.1.

#### 13.2.2.3 Assessment Methodology

- 35. The scale of significance described below has been used to assess the potential and residual recreation and land use effects of the Development when compared against existing baseline conditions. The assessment process aims to be objective and to quantify potential effects as far as possible; however some effects can only be evaluated on a qualitative basis and rely on professional judgement.
- 36. Potential effects associated with the construction of the Development are considered to be temporary, short-term effects.
- 37. Potential effects are defined as:
  - Positive effects: provide an advantageous or beneficial effect to an environmental resource or receptor, the significance of which may be "not significant" or "significant";
  - Neutral effects: have an effect on an environmental resource or receptor which is neither positive nor adverse; and
  - Adverse effects: provide a disadvantageous or adverse effect to an environmental resource or receptor, the significance of which may be "not significant" or "significant".
- 38. The magnitude of potential effects is defined as:
  - Negligible / No effect: either no change or no detectable change to a location, environment or sensitive receptor;



- Minor: a detectable but non-material change to a location, environment or sensitive receptor;
- Moderate: a material, but non-fundamental change to a location, environment or sensitive receptor; or
- Major: a fundamental change to a location, environment or sensitive receptor or in breach of recognised legislation, policy or standards.
- 39. There is no specific number or guidance that defines whether the magnitude is negligible, minor, moderate or major and the conclusion made is based upon the exercise of professional judgement.
- 40. With respect to recreation, significant effects are those where the Development would lead to material or fundamental impacts on receptors or where it would substantially affect recreational resources that have more than local use or importance, in accordance with the general guidance set out in Chapter 2: Environmental Impact Assessment.
- 41. Potential recreational effects of the Development are categorised as:
  - Direct physical effects: for example, construction activities interfering with PRoWs; and
  - Indirect effects: such as the effects of noise and changes in view for tourists and recreational land users. Visual effects are assessed in Chapter 7:
     Landscape and Visual Impact Assessment. Noise effects are assessed in Chapter 12: Noise and Vibration. Traffic effects are assessed in Chapter 14: Access and Traffic. Glint and glare effects are assessed in Chapter 17: Miscellaneous. This chapter considers the additional "in combination" effects on recreational amenity that could be caused by these factors together, and how they act on recreational amenity.
- 42. Significant land use effects in terms of the EIA Regulations would be those which resulted in a moderate or major change in the predominant land use of the Recreation Core Study Area.

#### 13.2.3 Relevant Legislation and Guidance

43. There is no legislation that is relevant to the assessment of socio-economic effects but national planning and economic development policy are relevant consideration in the scoping assessment for socio-economic effects.

#### 13.2.3.1 National Planning Policy

- 44. Section 5.12 of NPS EN-1 deals in detail with socio-economic effects of major energy infrastructure.<sup>6</sup> It states that all relevant socio-economic effects should be assessed and that these may include:
  - "The creation of jobs and training opportunities;
  - The provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities;
  - Effects on tourism;
  - The effect of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development;

<sup>&</sup>lt;sup>6</sup> DECC, Overarching National Policy Statement for Energy (EN-1), 2011



- Cumulative effects if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region."
- 45. EN-1 goes on to state that "applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic effects correlate with local planning policies." Also, it notes that "socio-economic impacts may be linked to other impacts, for example the visual impact of a development.....may also have an impact on tourism and local businesses."
- 46. The National Planning Policy Framework (NPPF) (July 2018) emphasises that one of the overarching objectives of the planning system is an environmental one which includes supporting the transition to a low carbon future by supporting renewable and low carbon energy and associated infrastructure. It explains how local planning authorities must support the delivery of low carbon energy and associated infrastructure to increase the use of renewable and low carbon energy and help to move toward a low carbon economy.<sup>7</sup>

# 13.2.3.2 National Economic Development Policy

- 47. The Government's Industrial Strategy White Paper outlines its ambitions to increase productivity and drive growth across the whole country. The strategy sets out four Grand Challenges to ensure Britain is at the forefront of the industries of the future, one of these being *Clean Growth* to lead the world in the development, manufacture and use of low carbon technologies. One of the key tenants of the White Paper is the upgrading of infrastructure to support productivity, and ultimately, economic growth. One of the focuses of upgrading this infrastructure is to provide clean and affordable energy.
- 48. The Government's Clean Growth Strategy details the method for which the UK will follow to achieve the goals set in the 2008 Climate Change Act and the Paris Climate Agreement. Stating it will require 'significant investment from the public sector' to meet the goals of these challenges. For the Paris Climate Agreement alone, the paper states it will require over \$13.5 trillion of public and private investment globally between 2015 and 2030.

#### 13.2.3.3 Local Economic Development Policy

- 49. The emphasis on economic growth is also clear in relevant local economic development plans. The South East Local Enterprise Partnership and both the Swale and Canterbury Local Authorities put employment and the economy high on the local agenda. The LEP aims to create 200,000 private sector jobs between 2011 and 2021 and lever £10 billion of investment to stimulate growth in the region. There are also plans to create nationally significant energy hubs and clusters throughout Kent and other areas. The LEP is currently in the process of updating its SEP with a preliminary release date scheduled for early 2018.
- 50. Kent County Council's Growth and Infrastructure Framework places a heavy focus on the extension of the county's renewable energy capacity<sup>11</sup>. Stating that to meet rising

<sup>&</sup>lt;sup>7</sup> CLG, National Planning Policy Framework, July 2018

<sup>&</sup>lt;sup>8</sup> HM Government, Industrial Strategy: building a Britain fit for the future, November 2017

<sup>&</sup>lt;sup>9</sup> BEIS, Clean Growth Strategy, 2017

<sup>&</sup>lt;sup>10</sup> South East LEP, Growth Deal and Strategic Economic Plan 2014

<sup>&</sup>lt;sup>11</sup> Kent County Council, Kent and Medway Growth and Infrastructure Framework, 2017



- demand and CO<sub>2</sub> reduction targets 'new and more diverse sources of electricity generation will need to develop'.
- 51. The now outdated (2013-16) Swale Economic Development Strategy aimed to promote Swale as an investment location and stimulate economic growth with a focus on local businesses and promoting the tourism economy<sup>12</sup>.
- 52. The adopted 2017 Swale Local Plan set meeting the challenge of climate change as one of their 12 themes for sustainable development<sup>13</sup>. The Local Plan places a lot of weight towards renewable energy<sup>14</sup> and plans to expand the use of renewable energy across the district, including solar photovoltaic energy<sup>15</sup>. Swale Borough Council also commissioned a study on renewable energy to scope the potential for its development across the district and specific guidance note<sup>16</sup> on the development of large scale solar arrays.
- Canterbury's Local Plan, adopted in 2017, states that is essential that activities in the District contribute to national objectives for reducing carbon emissions.<sup>17</sup> One of the actions to achieve this is 'promoting developments that generate renewable energy'. Policy CC1: Renewable and Low Carbon Energy Production Development, outlines the Council's considerations for renewable energy developments which include significant weight to their environmental, community and economic benefits.

# 13.2.3.4 Local Tourism Strategy

- 54. The Swale Visitor Economy Framework aims to increase the tourism value in Swale by 11.5% by 2023.<sup>18</sup> This will be achieved through improving the quality of space, change perceptions and increase confidence in place. Identifying the key strength of Swale as a destination to be its 'outstanding landscapes coast, country and marshland'.
- 55. Canterbury City Council's Local Plan states that tourism is 'a key activity and economic driver in the District'. It also states that the overall visitor economy supports 15% of the District's employment profile with around 7.2 million visits a year.<sup>19</sup>

#### 13.2.3.5 Guidance

- 56. The following guidance documents have been considered:
  - Guidelines for Environmental Impact Assessment (2004) Institute of Environmental Management and Assessment<sup>20</sup>; and
  - A Handbook for Environmental Impact Assessment (2013) Scottish Natural Heritage<sup>21</sup>.

#### 13.2.4 Relevant Literature

57. Literature on the effects of renewable energy infrastructure on tourism and the local economy is a relatively new topic area and although some research has been done, there is little in the way of definitive conclusions. A summary of some of that literature and the key findings within it is presented in the following sections. The evidence base has been

<sup>&</sup>lt;sup>12</sup> Swale Borough Council, Open for Business - Economic Development Strategy 2013-16

<sup>&</sup>lt;sup>13</sup> Swale Borough Council, Bearing Fruits 2031: The Swale Borough Local Plan 2017, 2017

<sup>&</sup>lt;sup>14</sup> AECOM, Swale Renewable Energy & Sustainable Development Study, 2011

<sup>&</sup>lt;sup>15</sup> Swale Borough Council, The Swale Borough Local Plan Part 1 – Publication Version, December 2014

<sup>&</sup>lt;sup>16</sup> Swale Borough Council, Renewable Energy Planning Guidance Note 2, The Development of Large Scale (>50kW) Solar Arrays, 2014

<sup>&</sup>lt;sup>17</sup> Canterbury City Council, Canterbury District Local Plan, July 2017

<sup>&</sup>lt;sup>18</sup> Swale Borough Council, Visitor Economy Framework, 2018

<sup>&</sup>lt;sup>19</sup> Canterbury City Council, Canterbury District Local Plan, July 2017

<sup>&</sup>lt;sup>20</sup> Institute of Environmental Management and Assessment (2004) Guidelines for Environmental Impact Assessment.

<sup>&</sup>lt;sup>21</sup> Scottish Natural Heritage (2013) A Handbook on Environmental Impact Assessment, 4th edition, Available online at: http://www.snh.gov.uk/docs/A1198363.pdf [accessed 10/09/2014]



supplemented with literature around wind farms, which although are inherently different in terms of their larger scale and therefore greater visibility, bear some similarities in terms of their effects on tourism. International examples have also been drawn on where possible.

# 13.2.4.1 Effect on Tourism Economy

58. Very few studies have attempted to assess how renewable energy infrastructures have impacted on the local tourism economy specifically. Biggar Economics (2017) have recently assessed the effect of wind farms on local tourist sectors across Scotland, finding that there is no relationship between the development of onshore windfarms and tourism employment at any geographical level<sup>22</sup>.

# 13.2.4.2 The Nature and Quality of the Landscape

- 59. The evidence base points towards potential for greater effects to occur where solar farms or other infrastructure are sited in areas of high landscape value.
- 60. The findings of Frantál and Kunc (2011) suggest that the context for a development affects the extent to which wind turbines would result in a change in the character of a landscape<sup>23</sup>. This may, in turn, influence how tourists interpret the structures. Similarly, Wolsink (2007) concludes that the type of landscape in which turbines are situated is one of the dominant factors in how visitors assess and interpret them<sup>24</sup>.
- As expected, there is particular sensitivity around areas of high landscape value. For example Park *et al.* (2008) in relation to mobile phone masts indicated that there was particular opposition towards mobile phone masts located in national parks<sup>25</sup>. Tourists were not prepared to accept negative effects on landscape character in these areas, even though they accept and recognise the socio-economic benefits associated with their enabling technology use. This is an important point some research suggests that tourists and the general public more widely are prepared to make a trade-off when interpreting and responding to new developments. In some contexts, the benefits associated with wind farm development may be enough to tip the balance in favour of the turbines, but there may be some contexts where development would never be accepted, irrespective of its wider benefits. This may also be the case for solar farm developments as these tend to be viewed as having similar notable wider benefits, whilst also typically being much less visible in the wider landscape than wind turbines.
- 62. Under these circumstances any changes to the landscape that are interpreted as having a negative effect could be more likely to go on to influence final decisions about visiting behaviour.

# 13.2.4.3 Activities in which Tourists Engage

63. The NFO studies (in Scotland and Wales) make a distinction between active visitors (those taking long walks or participating in other outdoor activities) and passive visitors (those sightseeing by coach or taking short walks or using a beach). Both studies find that the active visitors are more likely to highlight scenery and environment amongst key factors in their decision to visit the area than the passive group. The findings of these studies are not conclusive in relation to how this then plays out in terms of visitors' reactions. The Scottish Study (NFO, 2002) indicated that there was no difference in the proportions of active and passive visitors who indicated that they would be more or less likely to visit

 $<sup>^{\</sup>rm 22}$  Biggar Economics, Wind Farms and Tourism Trends in Scotland, 2017

<sup>&</sup>lt;sup>23</sup> Frantál and Kunc, Wind turbines in tourism landscapes: Czech experience, 2011

<sup>&</sup>lt;sup>24</sup> Wolinsk, Wind power implementation, 2007

 $<sup>^{25}</sup>$  Park et al., Perceived Landscape Impacts of mobile telecommunications development in the Peak District National Park, 2008



the area if a wind farm was built<sup>26</sup>. Conversely, the Welsh study (NFO, 2003) did highlight a slight difference between the proportion of active respondents who indicated that they would stay away from an area if a wind farm was constructed (14%) and the passive visitors  $(9\%)^{27}$ .

- 64. The GCU study indicates that tourists whose main activity was walking / hill walking (where landscape change is a major part of the experience) tend to be more positive on the whole in relation to wind farms; 19% of hill walkers indicated that they held negative views about wind farms compared to 25% overall. The study did not draw any conclusions about the relationship between tourism activity and effects<sup>28</sup>.
- A survey of visitors to North Devon and South Wales in relation to the proposed Atlantic Array Offshore Wind Farm (ICM, 2011) indicated that there may be a relationship between the nature of activities that tourists are planning during their visits and their reactions to the proposals<sup>29</sup>. It is difficult to identify definitive patterns as many survey respondents identified more than one type of activity that they planned for their visit. However, there are some patterns in the net balance of visitors who would be more or less likely to return. The most notable point is that the net balance for visitors engaging in activities where active appreciation of the landscape or seascape is involved (*i.e.*, beach activities, walking and rambling) is more positive towards proposals than those whose activities are less dependent on enjoyment of the landscape (for example general sightseeing, surfing, visiting theme parks, etc.).

# 13.2.4.4 Views on Renewable Energy

- 66. Wider views on renewable energy and solar power are important but are difficult to use as a predictor of potential effects. One factor which does appear to have a strong relationship with visitors' views on and reactions to renewable energy developments is their existing attitudes towards climate change and renewable energy. For example, a study carried out by Campey *et al.* in 2003 found that positive reactions to wind turbines are directly related to personal attitudes to renewable energy<sup>30</sup>.
- 67. The BEIS Public Attitudes Tracker surveys individuals on their feelings towards a range of issues including renewable energy. The latest wave (26) of the tracker finds that public support for Renewable energy has risen from 74% in 2016, to 82% in 2018.<sup>31</sup>
- 68. The Atlantic Array tourism survey (ICM, 2011) asked respondents to provide a rating for the extent to which they support the use of renewable energy. There were some interesting variations in visitors' responses to questions about whether the construction of Atlantic Array would encourage or discourage them from visiting the area in future.
- 69. Soini *et al.* (2011) points towards negative responses to landscape features (in this case power lines) being driven by subjective beliefs rather than objective knowledge<sup>32</sup>. Wolsink (2007) illustrates, using regression analysis of survey data, that there is hardly any relationship between attitudes to renewable energy infrastructure and understanding of the technology<sup>33</sup>.
- 70. Symbolic associations are important in the subjective judgements that individuals make about objects in the landscape. This is illustrated by Frantál and Kunc (2011)<sup>34</sup>.

<sup>&</sup>lt;sup>26</sup> NFO, Investigation into the Potential Impact of Wind Farms on Tourism in Scotland, 2002

<sup>&</sup>lt;sup>27</sup> NFO, Investigation into the potential impact of wind farms on tourism in wales, 2003

<sup>&</sup>lt;sup>28</sup> GCU, The Economic Impact of Wind Farms on Scottish Tourism, 2008

<sup>&</sup>lt;sup>29</sup> ICM, Atlantic Array Tourism Survey, 2011

<sup>&</sup>lt;sup>30</sup> Compy et al., A study into the attitudes of visitors s, Tourists and Tourism Organisations towards Wind Farms on the Boundaries of the Lake District National Park, 2003

<sup>&</sup>lt;sup>31</sup> BEIS, Public Attitudes Tracker: Wave 26, August 2018

<sup>&</sup>lt;sup>32</sup> Soini et al., Local residents' perceptions of energy landscape: the case of transmission lines, 2011

<sup>33</sup> Wolinsk, Wind power implementation, 2007

<sup>&</sup>lt;sup>34</sup> Frantál and Kunc, Wind turbines in tourism landscapes: Czech experience, 2011



- 71. While the evidence base is not conclusive, the available research suggests that wider perceptions held by tourists in relation to climate change and renewable energy play a role in how tourists weigh up the positive and negative effects of renewable energy infrastructure and may influence their reactions. This means that, even in cases where a solar farm development may have an effect on characteristics of a tourism area that visitors value, the way that this effect is assessed by visitors (and reflected in future behaviour) is influenced by wider views and perceptions.
- 72. This appears intuitively correct in light of research relating to the factors that drive perceptions about renewable energy infrastructure which suggests that the perceived benefits and costs associated with them are key factors influencing people's responses (Warren *et al.*, 2005)<sup>35</sup>. If this is the case then this trade off will happen independently of an individual's views about the effect of renewable energy infrastructure on scenery, *i.e.*, some may perceive renewable energy infrastructure as a cost, others as a benefit, but it seems feasible that the trade-off could be influenced by wider views about renewable energy and climate change, even where the visual effects are viewed negatively.
- 73. Ladenburg (2014) finds that, in terms of the visual effects of on-shore renewable energy infrastructure, there is an increased preference for biomass and solar energy solutions relative to wind power, suggesting that the negative effects on tourism may be slightly lower for solar than for wind farms<sup>36</sup>.

#### 13.3 Baseline Conditions

#### 13.3.1 Current Socio-economic Conditions

- 74. This section provides a preliminary assessment of baseline socio-economic conditions in Swale and two comparator areas (Kent and England).
- 75. The Development is located on the north Kent coast in the local authority area of Swale Borough Council and Canterbury City Council (although the Development site includes land within Canterbury's area, this is for reasons of maintenance of existing flood defences and conservation management objectives, and no development is proposed there). The Swale local authority area has a total population of some 147,000 residents and encompasses three main settlements:
  - Sittingbourne (population approximately 55,500);
  - Faversham (population approximately 20,000); and
  - Sheerness (population approximately 13,300)<sup>37</sup>.
- 76. The town of Faversham is located to the southwest of the Development and the port of Sheerness is located within 10 miles (16 km) of the Development.
- 77. Canterbury local authority area has a total population of around 164,000. The closest settlement to the Development in Canterbury is Whitstable with a population of around 34,300.<sup>38</sup>
- 78. Table 13.9 shows the size of the economy in each study area as measured by GVA and employment.

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<sup>35</sup> Green on green: public perceptions wind power in Scotland and Ireland, Warren et al., 2005

<sup>&</sup>lt;sup>36</sup> Dynamic properties of the preferences for renewable energy sources – A wind power experience-based approach, Jacob Ladenburg, 2014

<sup>&</sup>lt;sup>37</sup> ONS, 2017 Mid-Year Population Estimates

<sup>&</sup>lt;sup>38</sup> ONS, 2017 Mid-Year Population Estimates



Table 13.9 Economy Size

Area	GVA (£ billion)	Employees
Swale	3	49,500
Canterbury	3	65,000
Kent	39	608,500
England	1,498	25,530,000

Source: ONS, Gross Value Added (balanced approach), 2016; ONS, Business Register & Employment Survey, 2016

- 79. Data from 2016 estimates the total number of employees at around 50,000 in Swale. This has increased by 15% over the last five years (a higher rate than for England at 11%). In Canterbury employment has increased by 7% to 65,000 over the same period.
- 80. Table 13.10 shows the sectoral breakdown of the number of employees and how concentrated jobs are in the sector relative to the sector nationally. Concentration is indicated by the Location Quotient (LQ) which is the proportion of total employment that the sector makes up locally, divided by the proportion of employment that the sector makes up in England. An LQ higher than 1, suggests a higher than average concentration in that section, whereas lower than 1 suggests a lower than average concentration.

Table 13.10 Employment Sectors

	Swale		Canterbu	ıry	Kent		England
Sector	Employe es	LQ (Eng=1)	Employe es	LQ (Eng=1)	Employe es	LQ (Eng=1)	Employee s
Agriculture, forestry & fishing*	230	0.8	800	2.0	750	0.2	156,500
Mining & quarrying	20	0.5	0	0.0	300	0.6	20,500
Manufacturing	7,000	1.8	1,750	0.3	40,000	0.8	2,049,500
Energy	70	0.4	150	0.6	1,875	0.8	99,000
Water supply; sewerage and waste management	800	2.5	300	0.7	4,750	1.2	166,000
Construction	3,500	1.6	2,500	0.9	38,500	1.4	1,144,500
Wholesale, retail & vehicle repair	7,500	1.0	11,500	1.2	107,500	1.2	3,906,000
Transportation & storage	4,750	1.9	1,375	0.4	39,000	1.3	1,274,500
Accommodatio n & food services	3,250	0.9	5,500	1.2	41,500	0.9	1,875,500
ICT	850	0.4	1,750	0.6	17,500	0.6	1,130,500
Financial & insurance	475	0.3	1,125	0.5	16,500	0.8	921,500
Real estate	850	1.0	1,000	0.9	11,500	1.1	423,500
Professional, scientific & technical	3,000	0.7	3,750	0.6	39,500	0.7	2,294,000



	Swale		Canterbury Ke		Kent	Kent	
Sector	Employe es	LQ (Eng=1)	Employe es	LQ (Eng=1)	Employe es	LQ (Eng=1)	Employee s
Admin & support services	4,500	1.0	4,500	0.8	60,000	1.1	2,341,000
Public admin & defence	1,750	0.9	2,000	0.8	23,000	0.9	1,021,000
Education	4,500	1.0	14,000	2.4	62,000	1.1	2,287,500
Human health & social work	4,500	0.7	9,500	1.1	79,000	1.0	3,259,500
Arts, entertainment & recreation	1,000	0.8	1,750	1.1	14,000	0.9	631,000
Other service activities	900	0.9	1,750	1.3	12,500	1.0	529,000
Total	49,500		65,000		608,500		25,530,0 00

Source: ONS, Business Register & Employment Survey, 2016

Note: Figures have been rounded; LQ refers to the location quotient of the sector; \*Data on farm agriculture employment is only collected at Regional level

81. The largest sector in Swale, Kent and England and the second largest in Canterbury is the wholesale, retail & vehicle repair sector, with transportation & storage, manufacturing and education also contributing to a large proportion of employment. The proportion of workers in the Water & Waste Management sector, the Construction sector, the Manufacturing sector and the Transport & Storage sector in Swale are 2.5, 1.6, 1.8 and 1.9 times those of England, respectively, showing that these are very important sectors to the district. In Canterbury sectors with high concentrations on employment include Education, Wholesale, Retail & Vehicle Repair, and Accommodation which are 2.3, 1.2 and 1.2 times that the proportion in England, respectively. Within Kent, employment relative to England is spread fairly evenly with a slightly higher than average concentration in Construction. The highly concentrated activities, locally, point to the potential to benefit significantly from new developments and construction activity.

#### 13.3.2 Labour Supply & Skills and Economic Activity & Unemployment

82. Swale and Kent have a lower proportion of working age population than that of England as detailed in Table 13.11. Over the next 20 years this is expected to get more extreme with Swale falling by 5 percentage points, against England falling 4 percentage points.

Table 13.11 Working Age Population

Area	Working Age Population (% aged 16-64)		
	2016	2036	
Swale	61%	56%	
Canterbury	64%	60%	
Kent	61%	57%	
England	63%	59%	

Source: ONS, Mid-Year Population Estimates, 2017; ONS, 2016-based Subnational Population Estimates



83. Table 13.12 below suggests that in comparison to the wider county area and England, Swale's workforce has lower skills levels generally, whereas Canterbury generally has relatively higher skills levels.

Table 13.12 Proportion with Highest Qualification

Qualification	Swale	Canterbury	Kent	England
No Qualification	27%	20%	22%	22%
Level 1	16%	12%	15%	13%
Level 2	17%	14%	17%	15%
Level 3	11%	18%	12%	12%
Level 4 and above	19%	27%	25%	27%
Apprenticeships	4%	3%	4%	4%
Other	5%	5%	5%	6%

Source: ONS, Census, 2011

84. The proportion of working age people who are economically active (employed or actively seeking employment) is lower in Swale and Canterbury than both Kent and England as detailed in Table 13.13.

Table 13.13 Economic Activity Rate

Area	<b>Economic Activity Rate</b>	
Swale	77%	
Canterbury	77%	
Kent	80%	
England	79%	

Source: ONS, APS - Economy Activity Rate (aged 16-64), 2017

85. The proportion of people who are unemployed in the study areas is shown in Table 13.14. Swale has a higher than average unemployment rate compared to both Kent and England, suggesting some capacity in the local labour market. Canterbury is in line with that of England but higher than the wider County Council area.

Table 13.14 Unemployment

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Area Unemployment Rate					
Swale	4.7%				
Canterbury	4.4%				
Kent	3.2%				
England	4.4%				

Source: ONS, APS - Model Based Unemployment, 2017

# 13.3.3 Tourism

86. Visit Kent publishes a monthly Business Barometer which provides a snapshot of the volume of tourists to Kent each month. Around 400 tourist businesses from across Kent submit their monthly visitor number figures. The barometer reported there were 38.9 million visitors in 2017, a 3% increase on 2016<sup>39</sup>. This does not provide numbers specifically on Swale but provides an indication of the volume and seasonality of tourism in the area.

<sup>&</sup>lt;sup>39</sup> Visit Kent, End of Year Barometer Report, 2017



- 87. In 2015 there were over 4.6 million day visits to Swale (up 4% on 2013) and 399,000 staying visitors (up 2% on 2013) amounting to a total value of £228 million placed on the tourism economy (includes supply chain and induced spend effects), a modest 2% increase on that of 2013. This supported an estimated 4,561 jobs making up 9% of employment<sup>40</sup>.
- 88. In 2015 in Canterbury there were 6.6 million day trips (up 3% on 2013) and 649,000 staying trips (up 2% on 2013) amounting to a total tourism value of £454 million (including indirect and induced effects), an increase of around 2% on that of 2013. This supported an estimated 9,378 jobs, making up 14.7% of employment<sup>41</sup>.
- 89. Table 13.15 below shows the latest estimates of employment in tourism related sectors in the study areas.

Table 13.15 Tourism Employment

Area	Employees	% of total employment	LQ
Swale	4,250	9%	0.87
Canterbury	7,250	11%	1.14
Kent	55,500	9%	0.93
England	2,506,500	10%	1

Source: ONS, BRES, 2016; SIC Code Sectors I: Accommodation & Food Services and R: Arts, Recreation et al

- 90. The tourism offer in Swale and the adjoining area within the Canterbury City Council area has a number of dimensions:
  - Leisure: National Cycle Network (NCN) Route 1, from Dover to Shetland, passes the outskirts of the site and would have direct visibility of the Development from some locations. Public footpaths cross the Development at three locations. One passes from Nagden northwards towards the sea wall, another crosses south-west to northeast across the south eastern part of the Development and then further to the north it crosses the existing access road to Cleve Hill Substation close to the junction with Seasalter Road. The Saxon Shore Way is a popular coastal walk that runs from west of the Development to Whitstable, running around the western and northern perimeter of the Development site, and this will be part of the England Coast Path, if approved by the Secretary of State. Swale Marina is also on the outskirts of the Development which has 200 pontoon mud berths for vessels. There are also a number of caravan parks to the east of the Development in Canterbury, as well as Chestfield Golf Course 5 miles (8 kilometres) east of the site, although the Development is not visible from these tourism assets. There are 2 public houses located a short distance from the site: the Sportsman and the Shipwright Arms. To the north of the Sportsman are c. 37 beach chalets.
  - History and Heritage: the area has a distinctive maritime and aviation history and there is a variety of historic churches and buildings which give the area a distinctive tourism offer. The historic tourism offer also draws upon various homes and gardens (such as Belmont House and Doddington Place Gardens). Grade I listed Church of All Saints at Graveney. The area has a long history being a settlement before the Roman conquest.

Page 13-18

<sup>&</sup>lt;sup>40</sup> Destination Research, Economic Impact of Tourism: Swale – 2015 Results, 2016

<sup>&</sup>lt;sup>41</sup> Destination Research, Economic Impact of Tourism: Canterbury – 2015 Results, 2016



- Outdoors and wildlife: the natural environment offer is strong and attracts both coastal and inland visitors. Kent Downs AONB is located to the south of the Development and the Blean Woods National Nature Reserve is to the southeast. The Development is located adjacent to 'The Swale' (a Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and Ramsar site), alongside the South Swale LNR, owned and managed by the Kent Wildlife Trust. The Development is also near, although barely visible from, Oare Marshes LNR.
- 91. Faversham has numerous annual events which draw visitors to the town. These include the annual Brogdale Fruits Festivals, Faversham Carnival, a hat festival, a hop festival, Merton Vintage Show, an Open Gardens day and a Nautical Festival.
- 92. In light of the nature of the tourism offer, there could be potential for the Development to have an adverse effect on specific local tourism assets in the immediate vicinity of the Development if there are issues such as significant reductions in visual amenity and increases in traffic congestion.

#### 13.3.4 Recreation Resources

- 93. Recreation receptors located within the Recreation Wider Study Area were identified and both direct and indirect effects on these receptors were assessed. Direct effects are limited to those receptors located within the Recreation Core Study Area. Individual indirect effects on these receptors, such as visual or noise, have been considered in other chapters, namely Chapter 7: Landscape and Visual Impact Assessment and Chapter 12: Noise and Vibration, with recreational amenity considered for receptors in this chapter.
- 94. Recreational receptors consist of users of Public Footpaths, Public Rights of Way (PRoW), Public Bridleways, Long Distance Footpaths and Cycle Routes that pass within the Recreation Wider Study Area, as well as private recreation within the Recreation Core Study Area.
- 95. The selection of receptors has been informed by the initial baseline analysis. The land use and recreational receptors that have been identified are shown in Table 13.16. All receptors identified within the Recreation Wider Study Area are shown on Figure 13.1.
- 96. A survey was undertaken to record the number of pedestrians and cyclists ("Non-Motorised Users"; NMU) that used the public right of way network around the Recreational Wider Study Area. The survey was carried out on Friday 13<sup>th</sup> and Saturday 14<sup>th</sup> July 2018, during school term time and when the weather was hot and dry, and on Friday 10<sup>th</sup> and Saturday 11<sup>th</sup> August 2018, during school holidays; the weather on Friday 10<sup>th</sup> was very rainy, and on Saturday 11<sup>th</sup> the weather was hot and dry. Given the survey was carried out in good weather (3 out of 4 days) and in summer, usage of these recreational resources is likely to be higher than is typical across a whole year, and therefore represents a conservative representation of the baseline. The location of these counters is shown in Figure 13.1. The survey findings, and an interpretation of the data, are presented in Chapter 14: Access and Traffic (DCO Document Reference 6.1.14), section 14.3.6, with numerical data presented in Table 14.8, and it is not repeated in full here. Commentary is made in Table 13.16 for each footpath/cycle route, where relevant.

Table 13.16 Land Use and Potential Recreational Receptors

Effect Type	Potential Receptors		
Land use	The land beneath the Development within the Recreation Core Study Area		
Recreational	Users of Public Footpath 0187/ZR234/7		
	Users of Public Footpath 0104/ZR484/1,2,3,4,5		
	Users of Public Footpath 0104/ZR485/1,2		



Effect Type	Potential Receptors
	Users of Public Footpath 0104/ZR486/1,2,3,4
	Users of Public Footpath 0104/ZR488/1,2
	Users of Public Footpath 0104/ZR489/1,2,3
	Users of Public Footpath 0104/ZR490/1,2
	Users of Public Footpath 0104/ZR491/1
	Users of Public Footpath 0104/ZR492/1
	Users of Public Footpath 0119/ZR500/1
	Users of Public Footpath 0104/ZR692/1
	Users of Public Footpath 0094/ZF1/1,2,3
	Users of Public Footpath 0094/ZF2/1
	Users of Public Footpath 0094/ZF5/1
	Users of Public Footpath 0094/ZF32/1
	Users of Public Footpath 0314/CW55/1/2
	Users of Public Footpath 0314/CW82/1
	Users of Public Footpath 0314/CW90/1
	Users of Saxon Shore Way Long Distance Footpath
	Users of England Coast Path
	Users of Sustrans NCN Route 1 / The Garden of England Long Distance Cycle Route
	Users of The Swale Channel
	Bird and wildlife watchers
	Shooting, in accordance with shooting rights

#### 13.3.4.1 Public Rights of Way

97. The Development is located on an area of reclaimed marshland next to the Swale Channel. There are seven public footpaths (0104/ZR484, 0104/ZR485, 0104/ZR486, 0104/ZR488, 0104/ZR692/1 0314/CW55/1 and 0314/CW90/1) and a long distance footpath (Saxon Shore Way) which run adjacent to or pass through the Recreation Core Study Area at certain points, as shown on Figure 13.1. In addition, the proposed England Coast Path<sup>42,43</sup> follows the route of the Saxon Shore Way as it approaches and passes the Recreation Core Study Area.

ZR484, CW55, The Saxon Shore Way and the proposed England Coast Path

98. Public Footpath 0104/ZR484 consists of three sections, however, since they are all connected, the footpath has been assessed as one. Public Footpath 0104/ZR484 starts in the south western corner of the Recreation Core Study Area at Sandbanks Lane and continues to follow the northern side of the Recreation Core Study Area boundary before joining Public Footpath 0104/CW55 in the north eastern corner of the Recreation Core Study Area. CW55 extends east, to meet Faversham Road close to the Sportsman public

<sup>&</sup>lt;sup>42</sup> As of 27<sup>th</sup> September 2018, the section of the English Coast Path past the site had had proposals published but not yet determined. Given this section follows the existing Saxon Shore Way, it seems highly likely that this part of the route will be approved by the Secretary of State.

<sup>&</sup>lt;sup>43</sup> Natural England (2018). England Coast Path – Stretch Progress. Available at: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/743239/coast\_al-access-england-map.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/743239/coast\_al-access-england-map.pdf</a> [accessed on 18/10/2018]



house. The Saxon Shore Way Long Distance Footpath is 262 km in length and connects Gravesend to Hastings. It follows the route of Public Footpaths 0104/ZR484 and 0314/CW55 past the site. It is likely that the proposed England Coast Path will follow the same route past the site.

- 99. These routes follow the same path, from near the Sportsman public house in the east, around the north side of the site along the sea defence wall, around Faversham Creek and past the properties at Nagden, before linking up with Sandbanks Lane and other PRoW routes. This section is a total of approximately 6.9 km in length.
- 100. NMU counter 2 recorded usage of the east end of this section, the CW55 adjacent to Seasalter Road; counter 5 recorded usage approximately in the middle of the north side of the site on the ZR484; and counter 1 recorded usage of the combination of ZR484, ZR485 and access to the properties around Nagden, at the west end of this section. The data in Table 14.8 of chapter 14 show that there is relatively high usage (compared to other paths in the area) of the section at Faversham Road (62 to 143 counts per day), whereas in the middle of the section usage is less (3-12% on the Fridays, and 30-40% on the Saturdays), and at the western end usage is approximately half that at the eastern end. This may suggest that on weekdays there is increased usage, but for walks of a shorter length. At weekends, the data suggests that a higher proportion (though still only c. 50%) of walkers from the east reach the middle of the section. Similarly, higher numbers of walkers are present at the western end than in the middle. The average number of walkers per hour is 7-8 (counting in both directions) at Seasalter Road, 1-2 in the middle, and 3-4 at the western end. There was no evidence that the variations in weather affected the path usage substantially.

#### ZR485

- 101. Public Footpath 0104/ZR485 consists of two sections but has been assessed as one. The footpath crosses the Recreation Core Study Area from the southwest, near the properties at Nagden where it joins Public Footpath ZR484/Saxon Shore Way, to the northern boundary of the Recreation Core Study Area where it re-joins Public Footpath ZR484/Saxon Shore Way. This section is approximately 1.5 km in length. An informal alternative to the northern half of this section splits from the path towards the west, and joins ZR484/Saxon Shore Way approximately 0.6 km to the west of the ZR485 junction.
- 102. This route passes through the middle of the Recreation Core Study Area, mostly following field edges, typically adjacent to ditches, and is essentially flat. A middle section, immediately following the split with the informal alternative route, crosses through an arable field, which can be particularly muddy. In elevation, it is below the sea defence wall.
- 103. NMU counter 7 recorded usage of the middle of this section, which shows consistent usage of 20-30 people per day (c. 2 per hour).

  ZR486
- 104. Public Footpath 0104/ZR486 consists of three sections but has been assessed as one. The footpath is 1.7 km in length and borders the south western boundary of the Recreation Core Study Area, at Sandbanks Lane, linking to the east at Broom Street.
- 105. NMU counter 6 recorded usage of the middle of this section. This recorded generally low usage, of between 3 and 20 people per day, except for the very wet Friday, 10<sup>th</sup> August. The detailed data show that this was a group of c. 25 individuals going in one direction early in the day, and another group (most likely the same) returning later in the day. Based on the timings and size of the group, it is reasonable to assume that these are agricultural workers rather than recreational users of the path.



#### ZR488, ZR692 and CW90

- 106. Public Footpath 0104/ZR488 consists of two sections but has been assessed as one. The footpath starts at the junction between Seasalter Road and the Cleve Hill Substation road, and heads southwest, passing through the south eastern corner of the Recreation Core Study Area for 591 m before joining Public Footpath 0104/ZR489/1 at The Old Vicarage, in Broom Street. The section is 1.6 km in length.
- 107. Public Footpath 0104/ZR692/1 is 546 m in length and runs alongside Seasalter Road, from the junction with the Cleve Hill Substation, to the northeast before joining Public Footpath 0314/CW90/1. CW90 continues alongside Seasalter/Faversham Road to the northeast for 150 m. At this point, it does not link to any other PRoW other than Seasalter/Faversham Road, which does not have a footway at this point. Walkers wanting to continue would have to walk on the road for approximately 400 m to beyond the Sportsman public house.
- 108. NMU counter 3 recorded usage of ZR488, close to The Old Vicarage, in Broom Street. Counter 8 recorded movements at the junction of ZR488 and ZR692. Usage of both of these sections was very low, compared to other paths in the area, with one person every two days, on average, crossing the proposed site entrance at the Cleve Hill Substation road, and 2-3 people per day using ZR488 on average.

#### NCN Route 1

The NCN Route 1 Long Distance Cycle Route connects Dover to the Shetland Islands via 109. the east coast of England and Scotland<sup>44</sup>, in a route approximately 2,730 km long. The cycle route travels from Whitstable, to the east of the Recreation Core Study Area, onto Seasalter Road and through Graveney before turning right (west) onto Sandbanks Road for 2.1 km before heading south towards Faversham. NMU counter 4 recorded usage of NMU on Seasalter Road at the junction of the Cleve Hill Substation. Usage was approximately twice as high at weekends compared to weekdays, and three times as high during the school summer holidays than during term time (both weekdays and weekends). This suggests, as may be expected for a National Cycle Route, that many users during the summer holidays are not local people, but are undertaking the route as part of a longer trip and/or whilst on holiday. The lowest usage was c. 30 cyclists per day (Friday, term-time) and the highest was c. 160 cyclists per day, with up to 10% of NMU at this location being walkers rather than cyclists. The counters did not report direction of travel. It should be noted that the surveys were conducted in July and August, in warm and generally fine weather, and hence are likely to represent peak usage of this section of NCN 1.

# Other PRoW

110. Other PRoW within the Recreation Wider Study Area and beyond will not receive any direct effects and are not anticipated to receive discernible indirect effects due to separation distance and a lack of substantial intervisibility, and are therefore not considered further in this chapter.

# 13.3.4.2 The Swale Channel

111. The Swale Channel stretch of sea water runs within 100 m of the western and northern boundaries of the Recreation Core Study Area. The channel is used by outdoor enthusiasts for a range of aquatic activities including fishing, sailing, kayaking and canoeing. Given this receptor is outside the Recreation Core Study Area no direct effects are anticipated, and so potential indirect effects only have been considered. There is potential that the Development could have a visual effect on users of the Channel, if there is visibility of the solar PV modules, which is assessed in Chapter 7: Landscape and

<sup>&</sup>lt;sup>44</sup> Sustrans (2018). Map. [online] Sustrans National Cycle Network. Available at: https://www.sustrans.org.uk/ncn/map [Accessed 14 May 2018].



Visual Impact Assessment. The focus of any activity in the Swale is not on low-lying development behind the sea defence, even if visible at a distance of at least 100 m and only at very high tide, and effects on recreational amenity as a result are not anticipated. As a result, this receptor is not considered further in this chapter.

#### 13.3.4.3 Bird and Wildlife Watchers

- 112. The Recreation Core Study Area is located adjacent to the following ecological designations:
  - The Swale SSSI/Ramsar/SPA;
  - The South Bank of the Swale LNR; and
  - The Oare Marshes LNR.
- 113. These have been designated due to the rare types of vegetation, habitat for wintering and breeding birds and the variety of invertebrates that occur within them, and they are therefore valued by walkers and nature enthusiasts who visit the area. Given these receptors lie outside the Recreation Core Study Area no direct effects are anticipated, potential indirect effects only have been considered.

#### *13.3.4.4 Shooting*

114. Shooting may be carried out within the Recreational Core Study Area in accordance with legal shooting rights. These rights will not be affected by the Development as no solar PV array infrastructure is proposed in the areas where shooting rights exist.

## *13.3.4.5* Summary

- 115. The PRoWs identified above are considered to be sensitive receptors capable of experiencing significant effects during the construction and/or operational phases of the Development, and these effects have been assessed in sec 13.5.
- 116. Potentially significant effects on NCN Route 1 are assessed only during the construction phase associated with traffic movements along Seasalter Road, and these are assessed in Chapter 14: Access and Traffic.
- 117. Users of the sea in the Swale Channel are not assessed as have the potential to receive significant recreational amenity effects, and are not assessed as a sensitive receptor in this chapter. Chapter 7: Landscape and Visual, assesses the potential visual effects on these receptors.
- 118. People seeking recreational enjoyment of the wildlife designations identified above will use the PRoW network to access them, and so the wildlife designations themselves are not assessed as sensitive receptors of recreational amenity effects in this chapter.

## 13.3.5 Land Use

- 119. An Agricultural Land Classification survey was undertaken for the majority of the Recreation Core Study Area (excluding the existing access to the Cleve Hill Substation off Seasalter Road). The resultant Soils and Agricultural Use and Quality Report is provided in Technical Appendix A13.1.
- 120. A summary of the key findings of the survey are provided in Table 13.17.



Table 13.17 Summary of ALC Survey Results

Grade/ subgrade	Area (ha)	% of the agricultural land	% of the total land
Grade 2	1.9	0.5	0.5
Subgrade 3a	8.8	2.4	2.3
Subgrade 3b	359.9	97.1	94.2
Non-Agricultural	11.2	-	3
Total	381.8	100	100

- 121. The majority of the Recreation Core Study Area consists of land that is classified as Grade 3b. This land capability classification is characterised by land that is capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops<sup>45</sup>.
- 122. ALC Grade 2 soil occurs in a small area (0.5% of surveyed land) in the southwest of the Recreation Core Study Area and ALC Grade 3a occurs in two small patches in the north and south-west of the Recreation Core Study Area (totalling 2.3% of surveyed land).
- 123. Given that the Grade 2 and 3a areas are small, the land is predominantly cultivated for crops that favour the dominant ALC Grade 3b soil which covers 94.2% of surveyed land.
- 124. The arable land is currently used for spring and winter cereal/ oilseed rotations and is not under any agri-environment schemes.

#### 13.4 Development Design Mitigation

- Topographically the site is generally flat and low lying with elevations ranging from sea level to approximately 15 m above ordnance datum (AOD).
- 126. The measures set out below will be implemented as part of the Development and thus constitute mitigation 'embedded' in the design of the Development. As such, any assessment of effects presented in this chapter assumes the implementation of the embedded mitigation. A summary of embedded mitigation includes:
  - New coastal grazing marsh habitats and lowland meadow planting;
  - New native species hedgerow planting;
  - Areas of shelterbelt, which will incorporate tree planting; and
  - Native scrub buffer planting areas.
- 127. These embedded mitigation measures are set out in detail within the Landscape and Biodiversity Management Plan provided in Technical Appendix A5.2.
- 128. PRoW ZR485, which crosses the Recreation Core Study Area, will for the most part have solar PV modules on both sides. The field areas, which may contain the solar PV modules (see Chapter 5: Development Description), have been kept away from the route of the path at a distance of at least 14 m, typically 20 30 m, and in places c. 50 m, on either side. Within this separation will be a 2 m high "deer fence", as well as existing ditches for most of the route. CCTV camera fields of view will cover the fences, but not locations on the PRoW. Technical Appendix A5.2, Landscape and Biodiversity Management Plan,

<sup>&</sup>lt;sup>45</sup> Natural England (1992). ALC Survey Report: Description of the Grades and Sub-Grades. [online] Natural England. Available at: http://ALC%20survey%20report%20ALCB03692%20(1).pdf [Accessed 14 May 2018].



sets out that the corridor, along which ZR485 will run, will be managed as Grazing Marsh Grassland, except for where the spine road crosses it, which would be compacted stone.

129. In addition, one permissive path is proposed through the Recreation Core Study Area, as shown on Figure 13.1. This would be available as a footpath only, given that public rights of access to either end are also as Public Footpaths (ZR488 and ZR484/CW55), rather than bridleways. This would follow field boundaries through the Development site, for the most part with solar PV modules on both sides, albeit set back c. 10 m on either side at the southern half, and c. 20 m on either side for the northern half. The northern half of the route follows an existing track with a stone surface. The southern half will be grassed.

# 13.5 Assessment of Likely Effects

#### 13.5.1 Construction Phase

130. This section presents analysis relating to the sensitivity, magnitude and significance of the temporary effect which the construction phase of the Development would deliver for each receptor. The assessment draws on quantified effects derived from the assessor's solar impact model, as well as analysis and insights from the socio-economic and visitor economy baseline assessment.

#### 13.5.1.1 Economic Effects

Sensitivity of Receptor

- 131. Section 13.3.1 identifies that the construction and manufacturing industries are highly concentrated in Swale while Accommodation and Food Services is highly concentrated in Canterbury. These are industries that could feed into the supply chain during the construction phase of the Development.
- 132. Within the relevant policy documents, employment and economic activity are high on the list of priorities. Within Swale, employment is already growing at a high rate with a 15% increase over the last five years, while Canterbury has seen relatively modest employment growth of 7%.
- 133. Given the high priority in policy but the absence of major socio-economic challenges highlighted in the baseline in terms of overall performance, the sensitivity of the receptor is assessed as **Medium** for all study areas.

Magnitude of Effect

- 134. Estimates of construction expenditure have been provided by the Applicant. The total construction expenditure is estimated at around £700 million across a 2 year build period. This has then been broken down across expenditure items which have then been mapped onto production categories to enable modelling of effects.
- The global market for solar PV panels (and batteries) is currently dominated by China and Asia-Pacific, supplying around 70% of global PV equipment<sup>46</sup>. As such, it is assumed that the solar PV panels and battery storage equipment are sourced outside of the UK. This means the panels themselves are likely to be imported, reducing the potential supply chain effects within the UK. The construction activity on the site as well as other elements of the Development such as civil engineering works, parts of the substation or the mounts for the panels and assembly, could be sourced from suppliers based in England and potentially the local area.
- 136. Contractors to construct the Project will be appointed post grant of consent. Therefore, at this stage the exact proportion of expenditure retained within Kent is not known as it

 $<sup>^{46}</sup>$  Ball et al, Stanford University, The New Solar System: China's Evolving Solar Industry and its Implications for Competitive Solar Power in the United States and the World, 2017



- will depend on the location of individual contractors and availability of local labour at the time of procurement. As such, the assessment draws on the indicative assumption<sup>47</sup> that one third of construction expenditure would be retained within Kent.
- 137. It is not possible to provide a robust estimate of the proportion of expenditure retained within Swale and Canterbury and as such the assessment will be restricted to a qualitative assessment of the magnitude of effect at the level of Swale and Canterbury.
- To estimate the impact on the local economy in terms of both GVA and employment, the likely retained expenditure has been estimated using an input-output model which uses the latest data from the ONS on expenditure flows between industry to estimate supply chain (indirect) and employee expenditure (induced) effects<sup>48</sup>. The logic behind this is that the direct expenditure in the construction of the Solar Park will create further economic effects in suppliers to the Development as well as their own suppliers, these are the supply chain or indirect effects. Employment supported by construction will also generate further economic effects by spending their wages within the local and national economy, these are the induced effects. The estimated effects are as shown in Table 13.18.

Table 13.18 Estimated Economic Effects

Impact Area	Effect Type	Employment	Total GVA		
		(average FTE jobs per year)*	(£ million)		
Waret.	Direct	575	90		
Kent	Indirect & Induced	150	30		
	Total	750	120		
Fueloud	Direct	1,750	260		
England	Indirect & Induced	2,950	410		
	Total	4,725	670		

<sup>\*</sup>This is based on a 24 month build period

- 139. Set against the baseline indicators for Employment and GVA, the scale of effects at the level of Kent represent 0.12% and 0.31% of total employment and GVA respectively. The magnitude of effect is therefore assessed as **Low** and positive.
- 140. Set against the baseline indicators for Employment and GVA, the scale of effects at the level of England represents 0.02% and 0.04% of total employment and GVA respectively. The magnitude of effect is therefore assessed as positive but **Negligible**.
- 141. Qualitatively, although it is not clear at this stage what proportion of expenditure would be retained within Swale and Canterbury, many of the direct Kent jobs will likely be on site and therefore in Swale. Given the nature of the Swale and Canterbury economies (high concentrations of employment in Construction and Manufacturing, as well as accommodation and food services in Canterbury), it is likely that there would be some temporary construction and supply chain employment effects locally. The magnitude of effect is therefore assessed as **Low** and positive for both Swale and Canterbury.

Significance of Effect

142. As per the significance matrix in Table 13.8, the significance of effect is assessed as positive **Minor** at the level of Swale, Canterbury and Kent, and **Negligible** at the level of England.

<sup>&</sup>lt;sup>47</sup> From professional experience

<sup>&</sup>lt;sup>48</sup> ONS, Supply and Use Tables, 2016



#### 13.5.1.2 Skills & Unemployment

143. This receptor is used to assess the effects in terms of providing employment opportunities to local unemployed residents as well as providing opportunities for employed residents to move into higher skilled positions.

Sensitivity of Receptor

- 144. The baseline assessment identified that employment and economic activity are high on the list of priorities in both local and national policy.
- 145. The working age population of both Swale and Kent, make up a smaller proportion of total population than for England as a whole but not in Canterbury. Like many predominantly rural areas with towns rather than cities, Kent as a whole struggles to sustain a large working age population because of the tendency for employment opportunities to be more limited in rural areas. Skill levels are also lower in Swale, although they present a better fit with the construction and manufacturing industries which typically have a higher proportion of Level 3 and below skill levels (60 and 64% respectively) than the economy as a whole (55%)<sup>49</sup>.
- 146. The economic activity rates in both Swale and Canterbury are lower than that of England and Kent, showing that there are less people working or available for work in the economy.
- 147. However, unemployment (those without a job who are actively seeking work) in Swale is higher than the England average, indicating some spare capacity for new employment activities locally. In Canterbury the unemployment rate is in line with that of England. For the wider Kent study area, however, unemployment is relatively low.
- 148. The baseline assessment shows that the sensitivity of the receptor is **High** at the level of Swale and **Medium** at the levels of Canterbury, Kent and England given the policy priorities and levels of unemployment.

#### Magnitude of Effect

- 149. At this early stage of development, information on procurement strategies or employment profiles is not available and as such only a qualitative assessment of magnitude can be made. Drawing on the assessor's knowledge of past renewable energy developments, there are likely to be a wide range of employment opportunities available. Although a number of these activities will require lower skilled workers, the workforce profile will likely span a number of occupational groups including site managers, technical specialists and construction workers. This will provide opportunities to a wide range of residents both locally and nationally.
- 150. The scale of employment estimated in Table 13.18, suggests that at the level of England, there are unlikely to be any discernible effects on Skills and Employment. The magnitude of effect is therefore assessed as positive but **Negligible**.
- 151. For Kent, the estimated employment and likely profile of employment opportunities would provide a boost to the local economy, however the current skills profile and levels of unemployment are not as stark, relative to the national average. The magnitude of effects is therefore assessed as positive but **Negligible**.
- 152. Although the scale of employment expected to be supported within Swale and Canterbury is unclear at this stage and unlikely to be very high, the relatively high concentrations of employment in the construction, manufacturing and accommodation and food services industries and profile of skills suggests Swale is well-placed to capitalise on the type of employment expected during the construction phase. This is in terms of providing

<sup>&</sup>lt;sup>49</sup> ONS, Census 2011



opportunities for lower skilled workers as well as retaining those with higher skills. The magnitude of effects is therefore assessed as positive and **Low.** 

Significance of Effect

153. As per the significance matrix in Table 13.8, the significance of effect is assessed as **Moderate** at the level of Swale, **Minor** at the level of Canterbury and **Negligible** at the level of Kent and England.

# 13.5.1.3 Tourism Economy

- 154. The assessment of effects on the tourism economy factors in the Recreation assessment as well as the following, which are assessed in other chapters as stated here:
  - Traffic, Chapter 14: Access and Traffic;
  - Noise, Chapter 12: Noise and Vibration;
  - Dust, Chapter 16: Air Quality;
  - Effects on access routes (this chapter); and
  - Landscape and Visual effects, Chapter 7: Landscape and Visual Impact Assessment.

Sensitivity of Receptor

Tourism is an important sector in Swale, Canterbury and Kent, accounting for around 10% of total employment in all areas. Within the Swale Local Plan, Economic Development Strategy and Tourism Strategy, as well as the Canterbury Local Plan, tourism is highlighted amongst the key sectors in the area and identified as a priority area. More locally, the area attracts a wide variety of visitors, particularly through local events such as the Hop Festival and Merton Vintage Show in Faversham. In light of the importance of the visitor economy to the area and the strategic aspirations for the sector, the receptor is deemed to have **High** sensitivity for Swale, Canterbury and Kent.

Magnitude of Effect

- During the construction phase, effects on the tourism economy receptor could arise as a result of construction related disruption and traffic such as restrictions to access as well as amenity. There may also be scope for effects to arise as a result of the visual effect of the Development as it is built out. These visual effects will build as the scheme is constructed and could start to become a consideration before the scheme is operating. The potential for these visual effects to impact on tourism activity and the visitor economy are considered fully in the examination of this receptor during the operation and maintenance phase. The assessment here focuses on the potential effect of construction related disruption and traffic on the tourism economy. It is also important to note that, although these will be temporary, the construction workers working on site will likely bring additional employee expenditure which is available for the local tourism economy to capture. Although modest, this will likely go some way towards mitigating any adverse effects during the construction phase.
- 157. Any significant construction related disruption could, if sustained over an extended period, discourage people visiting the local area.
- 158. However, Chapter 14: Access and Traffic concludes that, once mitigation measures are considered, the residual effects of traffic and transport on all routes except Seasalter Road and Hill Head Road will be negligible. Given this is a small route in the context of the local tourism industry and is not required for general access to the large majority of tourism attractions identified in section 13.3.3, it is concluded that the magnitude of effect will be **Negligible** at the level of Swale, Canterbury and Kent.

Significance of Effect

159. The significance of the effect will be **Negligible** for Swale, Canterbury and Kent.



#### 13.5.1.4 Recreation

- 160. Of the PRoWs identified in section 13.3.4.1, only users of the PRoWs within the Recreation Core Study Area with the potential to undergo a direct effect during construction have been assessed in this section. Indirect effects associated with changes in views and construction noise will apply principally to the PRoWs within the Recreation Core Study Area, and this is also referred to.
- 161. PRoWs outside the Recreation Core Study Area may experience indirect effects during the construction phase, but these will be similar to those during the operational phase, increasingly, as construction progresses, and these are assessed in section 13.5.2.2.
- Direct effects during the construction phase on PRoWs outside of the Recreation Core Study Area will arise only through construction traffic effects, which are assessed in Chapter 14: Access and Traffic.
- 163. Recreational amenity encompasses a range of experiential factors, including visual pleasure, a sense of space, exercise, fresh air, light, company or solitude, tranquillity, appreciating wildlife and other factors, which may include subjective factors. It is not necessarily the case that a significant visual effect (or other type of effect) leads to a significant recreational amenity effect, although it may, and this is considered in the assessments.
  - ZR484, CW55, The Saxon Shore Way and the proposed England Coast Path
- 164. This path will not be affected directly during the construction phase, i.e., no construction works will take place along it.
- Indirect effects will include views of construction activity and construction noise, which will change depending on the location of construction activity at any one time. As the construction progresses, the views will change towards those of the operational phase, which are assessed in section 13.5.2.2. Construction activity that will be visible and/or audible, depending on distance of the walker from the activity, will involve machinery to construct the electrical compound and spine road, move the solar PV modules, mounting structures and other equipment around the site, and install the solar PV modules and mounting structures. This will take place in phases, likely to be based on the fields within the site.
- 166. Given that most of the fields close to this path are at least 1.5 km from the eastern end, the usage data for the middle of the path (NMU counter 5) are considered applicable. These show very low usage during weekdays (between 1 and 2 people per hour), and higher usage at weekends (though noting that the surveys were during good weather in summer months, and would generally be expected to be used less in other months). Chapter 5: Development Description, notes that construction activity at weekends would be limited to 07:00 to 13:00, and hence most of the weekend would not have construction activity taking place.
- 167. For walkers that are present when construction is occurring, however, where walkers are within c. 500 m of this activity, the sense of movement, potential for audible noise and construction elements within the view are assessed as being likely to be sufficient to adversely and materially affect the experience of walking on this path of Moderate magnitude, in accordance with section 13.2.2.3. Fields are typically c. 500 m long, alongside the path, and so where there is construction occurring in a field, walkers will be within 500 m of it for 500 m whilst approaching, and then 500 m whilst alongside. When they're past the field, they will be less aware of construction activity. Therefore, the effects are expected to occur on average over a length of path of c. 1 km for approximately half of the construction phase (i.e., c. 12 months) when construction activity is occurring in fields bordering the path. Given this path is a long-distance path, and a proposed National path (the England Coast Path), the path is considered more than



"local", and the **Moderate** magnitude effects on it are assessed as a significant adverse effect in terms of the EIA Regulations, that is reversible, temporary, likely to be limited in extent to c. 1 km of path length at any one time and unlikely to affect a large number of people, as a result of the low usage of the path on days when construction activity would occur.

168. At other locations and days of the week, effects on this path would be **Minor** or **Negligible**, and not significant in terms of the EIA Regulations.

ZR485

- 2R485, although passing through the middle of the site, will be kept open throughout the construction phase. When vehicles are crossing it, and when the spine road is being constructed on it, staffed gates will be used to separate walkers from construction activities. At other times, the gates will be closed across the spine road, permitting passage by walkers. This is set out in the PRoW Management Plan, appended to the Outline Construction Traffic Management Plan (Technical Appendix A14.1 of this ES).
- 170. ZR485 will, in the early stages of the construction phase, have the spine road constructed across it, and fencing constructed on either side along its length. The arable fields will be prepared and seeded with grass and wildflower mix, which will establish. As the construction phase progresses, solar PV modules and their mounting structures will be brought into the site, stored in temporary locations in the fields, then constructed across the fields. At some point, these will be constructed first one side, then the other, of ZR485. As this happens, where construction activity is within c. 500 m of walkers on the path, the sense of movement, potential for audible noise and construction elements within the view are assessed as being likely to be sufficient to adversely and materially affect the experience of walking on this path of **Moderate** magnitude, that is a significant effect in terms of the EIA Regulations, in accordance with section 13.2.2.3. This is expected to occur on average over a length of path of c. 1 km (for the same reasons as set out above, for ZR484) for approximately half of the construction phase (i.e., c. 12 months) when construction activity is occurring in fields bordering the path. The effects would be reversible, temporary, likely to be limited in extent to c. 1 km of path length at any one time and unlikely to affect a large number of people, as a result of the low usage of the path.

ZR486

- 171. This path will not be affected directly during the construction phase, as it lies outside the Development site and is not crossed by any construction access route to the site.
- 172. Indirect effects will be limited by intervening vegetation, and by the baseline environment which includes active agricultural activity and polytunnels. Whilst construction activity will occur within 30 m of this path, this will be for a very short period, expected to be 1 week or less. This would be a **Minor** adverse effect, in accordance with section 13.2.2.3, and, given it is a local path, the adverse effect would be not significant in terms of the EIA Regulations. The effect would be reversible, temporary, likely to be limited in extent to c. 300 m of path length and unlikely to affect a large number of people, as a result of the low usage of the path.

ZR488, ZR692 and CW90

173. ZR692 crosses the private road to Cleve Hill Substation, where it meets Seasalter Road. As set out in the PRoW Management Plan, appended to the Construction Traffic Management Plan (Technical Appendix A14.1 of this ES), the existing gates provided either side of the access road will be maintained and additional signage provided to warn PRoW users of the crossing point and to advise them to only cross when it safe to do so. Following this, and other measures set out in the PRoW Management Plan, the magnitude



- of the adverse effect on users of this path is of **Minor** magnitude, and given the local nature of the path, not significant in terms of the EIA Regulations.
- 174. The remainder of ZR692 and CW90 would have no direct effects, and only distant indirect adverse effects from the construction phase, which would be of negligible magnitude and not significant in terms of the EIA Regulations.
- 175. ZR488, although passing though the site, will be kept open throughout the construction phase. The only activity that would require machinery to cross this path during construction is agricultural machinery used to prepare the ground for seeding with grass and wildflower. This would occur early in the construction phase. The path surface would then improve, from a ploughed arable field to a grass sward. Following this, the only effects would be indirect.
- 176. Indirect effects on ZR488 will be limited by the short distance, from Cleve Hill down towards Broom Street, from where views are available and the path is proximate to solar PV modules and therefore construction activity. Whilst construction activity will occur as close as 30 m from this path, this will be for a short distance of c. 200 m and a very short period, expected to be 2 weeks or less. This would be a **Minor** adverse effect on recreational amenity, in accordance with section 13.2.2.3, and, given it is a local path, the effect would be not significant in terms of the EIA Regulations. The effect would be reversible, temporary, likely to be limited in extent to c. 700 m of path length and unlikely to affect a large number of people, as a result of the very low usage of the path.

NCN 1

- 177. Given this receptor is outside the Recreation Core Study Area, no direct effects are anticipated and so potential indirect effects only have been considered.
- 178. Effects on cyclists on this route assessed elsewhere in this ES include:
  - Visual effects over a c. 800 m stretch of Faversham Road/Seasalter Road, between the Sportsman public house and the entrance to the Cleve Hill Substation; these effects are assessed in Chapter 7: Landscape and Visual Impact Assessment as being significant during the construction phase and for the first 5 years of the operational phase; and
  - Construction traffic effects (delay, and fear/intimidation), for c. 1.5 km where NCN 1 coincides with the construction traffic route along Seasalter Road from Sandbanks Road to the Cleve Hill Substation junction; these are assessed in Chapter 14: Access and Traffic as being moderate, but not significant.
- 179. During construction (and decommissioning), the moderate magnitude visual effects associated with construction traffic moving into and within the site, and construction activity within the site, will be noticeable to cyclists travelling west, from Whitstable towards Faversham, for 800 m south from the Sportsman public house to the Cleve Hill Substation site entrance. As they cycle on from there, there would be no visual impacts of the Development, but the cyclists would experience slightly increased traffic levels associated with construction traffic, for 1.5 km until the turning to Sandbanks Road. These traffic effects would not occur from 13:00 on Saturday until Monday mornings, because of construction timings and construction traffic timings (see Chapter 5: Development Description, and Chapter 14: Access and Traffic). Traffic effects of moderate magnitude would be experienced for cyclists in both directions. During these times, one third of the total usage of the NCN would be expected, based on the survey data. The importance of NCN 1 is its status as a national cycle route, attracting people to cycle on an infrequent basis, rather than as part of a regular commute. Peak Heavy Goods Vehicle (HGV) movements are 12 two-way movements per hour, or 1 every 5 minutes on average. For a cyclist travelling at 10 miles per hour, they will cycle on the same route as construction traffic for 6 minutes. It is therefore likely that, on average, a cyclist on the NCN 1 would encounter 1 additional HGV during that 1.5 km stretch of



road, during the peak traffic flow of the construction period, and only during times when construction vehicles are moving. The change in experience relative to the baseline of cycling on the NCN along Seasalter Road from the Sportsman to Sandbanks Road would be a detectable but non-material change, and the effect on recreational amenity is assessed as **minor**, and not significant.

Bird and Wildlife Watchers

- 180. Recreational enjoyment of observing birds and other wildlife near the Recreational Core Study Area occurs principally from the sea defence wall, accessed by using the Saxon Shore Way path. From this path, there are open views towards the intertidal zone of the Swale channel, which is the principal habitat for birds in the area. There are also views across the fields within the Recreational Core Study Area, of which the main wildlife interest is in the foreground, and along the drainage ditches throughout the Area. During both the construction and operational phases, effects on birds are assessed in Chapter 9: Ornithology as not significant. The sea-ward side of the sea defence will not be affected by the Development. The land-ward side will involve the arable fields being replaced by solar panels, but with wider grassland areas either side of each ditch. In addition, the habitat management area in the northeast of the Recreational Core Study Area will be managed to be of improved value to birds of importance to the Swale designated area (brent geese, lapwing and golden plover). It is expected that these species will use this are more intensively than in the baseline scenario once the Development is operational, and the construction phase will be a transition between the baseline and the operational phase. Following construction, the ditch habitats will also be improved, as set out in Chapter 8: Ecology. Both of these areas will provide improved opportunity for watching birds and other wildlife than in the baseline scenario.
- 181. The significant visual effects assessed in Chapter 7 are less relevant for the recreational amenity for bird and wildlife watchers, and hence the change, during construction (and decommissioning), in recreational amenity for bird and wildlife watchers is expected to be detectable, but non-material, and so is assessed as **minor**, and not significant.

#### 13.5.1.5 Land Use

- 182. It is estimated that construction of the Development would result in the loss of approximately 370 ha of arable agricultural land (including 359.9 ha of ALC Grade 3b, 1.9 ha of ALC Grade 2 and 8.8 ha of ALC Grade 3a).
- 183. Agricultural activities within the areas directly involved in the construction will be affected during construction of the Development. The Applicant will work with the landowners to ensure that they are able to continue to operate their activities safely during the construction phase. A cessation may be required during this time in certain areas in proximity to construction activities for health and safety reasons. The loss of arable farmland during construction is considered to be of negligible magnitude and is not significant, given that 97.1% of agricultural land lost is Grade 3b and not considered best and most versatile and therefore considered to be of low sensitivity.
- 184. Whilst the construction phase is considered to have a short-term effect on land use, it is noted that these effects would then extend into the operational phase, and are assessed in section 13.5.2.3.

#### 13.5.2 Operational Phase

185. This section of the ES chapter presents analysis relating to the sensitivity, magnitude and significance of the effect which the operational and maintenance phase of the Development would deliver for each receptor. The economic and tourism assessment draws on quantified effects derived from the assessor's solar impact model, as well as analysis and insights from the socio-economic and visitor economy baseline assessment.



186. In assessing the operational and maintenance effects of the Development, consultations were undertaken with the Applicant to better understand issues such as potential direct employment, direct employment costs, operational and maintenance supply chain expenditure, as well as sourcing assumptions, as well as with tourism officers at Swale and Kent to understand the sensitivity of the tourism economy receptor.

#### 13.5.2.1 Tourism Economy

187. The assessment of effects on the tourism economy mainly considers visual effects and restrictions to rights of way.

Sensitivity of Receptor

188. Tourism is an important sector in Swale, Canterbury and Kent, accounting for around 10% of employment in all study areas. Within the Swale Local Plan, Economic Development Strategy and Tourism Strategy, as well as the Canterbury Local Plan, tourism is highlighted amongst the key sectors in the area and identified as a priority area. More locally, the area attracts a wide variety of visitors, particularly through local events such as the Hop Festival and Merton Vintage Show in Faversham. In light of the importance of the visitor economy to the area and the strategic aspirations for the sector, the receptor is deemed to have **High** sensitivity for bot Swale, Canterbury and Kent.

Magnitude of Effect

- 189. The Magnitude of effect is assessed by considering the characteristics of:
  - The Development;
  - The local area's visitor economy; and
  - Tourists visiting the local area.
- 190. The Development itself is large in scale and the area of the site to be developed is large (c. 400 ha), however, the height of the vast majority of the site is limited to c. 4 m, aside from the substation, which could reach approximately 13 m in height.
- 191. Landscape is an important part of the tourism offer in the local area and as such any changes to the natural landscape could impact significantly on its appeal.
- 192. Consultation with local stakeholders such as Swale Borough Council's Tourism and Economic Development Officers, suggests that walking and cycling are the main tourist activities in and around the Recreation Core Study Area. Visitors to the Recreation Core Study Area and surrounding area are mainly local tourists and visitors to the nearby town of Faversham, with some events tourism to annual events held in the town.
- 193. The Development's size means it is likely to affect the visual amenity of the landscape significantly, from locations in close proximity to the Development (see Chapter 7) although the recreation assessment finds no significant impacts on recreational amenity. Any effects are likely to be localised and there is no evidence to suggest with confidence that the effects on the recreational and visual amenity would significantly reduce tourist visits to the area. There is some literature that points to the positive effects of renewable energy infrastructure on the tourism economy through eco-tourism both within the UK and internationally<sup>50</sup> as well as examples of new attractions built around renewable energy infrastructure such as the Wunsiedler Way in Germany.<sup>51</sup> Consultations with residents in areas that have seen significant wind farm development in Wales (Neath Port Talbot and Rhondda Cynon Taff) suggest that businesses and residents see potential for using renewable energy developments to market the local area as a centres for renewable energy, working them into local Destination Management Plans.<sup>52</sup> However, these

Cleve Hill Solar Park Ltd November 2018

<sup>&</sup>lt;sup>50</sup> University of South Africa, The impact of renewable energy structures on tourism, 2013

<sup>51</sup> https://erneuerbare-energien.s-w-w.com/seite/

<sup>&</sup>lt;sup>52</sup> The Tourism Company and Regeneris Consulting, Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector, 2014



- examples are not yet fully established and it is not clear that this experience could be replicated here.
- 194. On balance, there is no evidence to suggest with confidence that there would be a significant adverse effect on the local tourism offer, or on the tourism economy. Therefore it is concluded that any changes to visitor numbers as a result of the Development would likely be very small, if they materialise at all.
- 195. The assessment concludes that the magnitude of the effect is **Negligible** and adverse for Swale, Canterbury and Kent.
  - Significance of Effect
- 196. The significance of the effect will be **Negligible** for Swale, Canterbury and Kent.

#### 13.5.2.2 Recreation

- 197. The visual effects of the Development on public rights of way during the operational phase are assessed in Chapter 7: Landscape and Visual Impact Assessment. Noise effects on residential receptors located on or close to PRoW are assessed in Chapter 12: Noise and Vibration, and predict negligible day-time noise effects at all residential properties. Glint and glare caused by reflection of sunlight from the solar panels is assessed in detail in Technical Appendix A17.1, as part of Chapter 17: Miscellaneous. Glint and glare effects are expected to affect path locations to the east and west of solar panels, at the start and end of the day when the sun is low in the sky. These effects will be viewed in the same direction as the sun, and at much lower intensity similar to the sun shining off water.
- During operation, usage of the access track network within the site by maintenance and operational vehicles will be of a low level, similar to existing agricultural traffic within the Recreation Core Study Area. It is possible that for unscheduled maintenance reasons, large vehicles may need to be brought onto the site. Signage warning of potential traffic would remain at the three crossing points to ensure safety of, and minimise inconvenience to, any recreational users of the footpaths.
- 199. During the Development design phase, consideration was given to the separation distance between elements of the Development and the rights of way network. The separation distance is primarily a response to visual effects of the solar PV array, but also responds to other issues including recreational amenity, and is therefore considered here.
- 200. As noted in section 13.5.1.4, recreational amenity encompasses a range of experiential factors, including visual pleasure, a sense of space, exercise, fresh air, light, company or solitude, tranquillity, appreciating wildlife and other factors, which may include subjective factors.
  - ZR484, CW55, The Saxon Shore Way and the proposed England Coast Path
- 201. This path will not be affected directly during the operational phase.
- 202. Indirect effects will principally be associated with views of the solar PV modules instead of arable fields. As the path is in an elevated position, these will be beneath the viewer, with long distance views to the higher ground further inland remaining open. All aspects of recreational amenity will remain unaltered, with the exception of views to the inland side of the path over a length of path of approximately 5.2 km where the path runs adjacent to fields containing solar PV modules. These views will not contain moving elements, and the solar PV modules will be set back from the path by typically approximately 70 m.
- 203. Glint and glare effects are predicted along the stretch of ZR484 and the Saxon Shore Way in Technical Appendix A17.1. Effects may last for up to 20 minutes in one location, however in practice, effects would likely be perceptible for a few minutes to a moving



observer. Effects occur in early morning and late afternoon, when the sun is relatively low in the sky. As a result, reflections would generally coincide with direct sunlight, such that an observer looking towards a reflecting panel would also be looking towards the sun. Direct sunlight is significantly more intense than a reflection from a solar PV module. Where reflections are visible to an observer, their intensity will be comparable to reflections from still water. Reflections from solar panels are less intense than reflections from glass or steel. Reflections of this type are already present along this stretch of path, from the Swale and Faversham Creek, particularly at high tide. The water at high tide would be closer to the path than the solar panels, and hence the reflection could be more intense from the water (noting this would occur at different times of day because the water and panels would be in different directions). The effects on this path are assessed as low, and not significant.

- 204. Chapter 8: Ecology concludes that biodiversity across the site will increase, with the Development, with particular enhancement of the ditch network across the site, which is where the majority of biodiversity within the site currently exists. It is arguably unlikely that many walkers would appreciate the increase in biodiversity within the developed area of the site, from their position on the sea defence, some 70 m or more distant.
- As noted above (section 13.5.2.2), recreational amenity includes visual pleasure, a sense of space, exercise, fresh air, light, company or solitude, tranquillity, appreciating wildlife and other factors. Of these, effects on the visual environment to one side of the path will be substantial, and significant, as already assessed in Chapter 7, and could be positive or negative depending on the opinion of the viewer and particularly their attitude to renewable energy, as noted in section 13.2.4, though as a precautionary approach the effects would be assumed to be adverse. All other factors relevant to recreational amenity will remain as in the baseline scenario.
- As a worst-case, assuming the potential, but subjective, perception that views to one side of the path of solar PV modules with enhanced ecological habitat are worse than views of arable fields, the overall change in recreational amenity would be "detectable, but not material", and is therefore is assessed as an adverse effect on recreational amenity of Minor magnitude, in accordance with section 13.2.2.3. This effect would occur during the operational phase of the Development, and would be reversible on decommissioning. Given this path is a long-distance path, and a proposed national path (the England Coast Path), the path is considered more than "local", and the **Minor** magnitude adverse effects on recreational amenity on it for 5 km are assessed as not significant in terms of the EIA Regulations.
- 207. It should be noted that purely visual effects on walkers during the operational phase are assessed (in Chapter 7) as Major, and significant, in terms of the EIA Regulations.
- 208. At other locations, effects on this path would be **Negligible**, and not significant in terms of the EIA Regulations.

ZR485

- 209. During the operational phase, ZR485 will be a materially different path to the baseline situation.
- 210. Beneficial effects include that:
  - The surface of the path will be grass, rather than field-margin or ploughed field, and will be maintained by site staff to avoid excessive mud or standing water; and
  - Adjacent ditch habitats will be improved for wildlife, as set out in Chapter 8: Ecology.
- 211. The nature of visual changes is subjective, but have been assessed as adverse, on a precautionary basis. The open views across several kilometres of flat, arable farmland,



will be replaced by relatively proximate (typically c. 25 m) views of deer fences and solar PV modules and their mounting structures. The highest parts of these will be above head height, and hence long range views to either side of the path will cease. In places the solar PV modules may be mounted so that the lowest parts are above typical head height, affording line of sight for some distance underneath the panels. Notwithstanding this, the sense of space that currently characterises the path will reduce from views of several kilometres to several tens of metres. This will be a substantial change in view, as shown in the visualisation (viewpoint 22) supporting Chapter 7: Landscape and Visual, which includes two 180 degree photomontages from a point on this path.

- 212. Some glint and glare may occur for short periods of time on certain parts of the path, where walkers have clear sight of the upper surfaces of the solar panels, and the sun is shining from an angle so as to cause a reflection. Specific details of when and for how long glint and glare will occur depends on the height of the walker, and the specific distance from the path to panels and the relative heights. Glint and glare is expected for up to 20 minutes, twice each day, at locations where it does occur, in early morning and late afternoon. Effects are assessed in Chapter 17: Miscellaneous as being low, and not significant.
- 213. As noted above (section 13.5.2.2), recreational amenity includes visual pleasure, a sense of space, exercise, fresh air, light, company or solitude, tranquillity, appreciating wildlife and other factors. Adverse effects in terms of visual and sense of space have to be weighed against beneficial effects in terms of wildlife and direct effects on the physical path quality, affecting the ease of use. All other factors relevant to recreational amenity will remain as in the baseline scenario.
- 214. All effects are reversible on decommissioning of the Development.
- Overall this is assessed as a **Moderate** magnitude effect, which is a significant effect in terms of the EIA Regulations, in accordance with section 13.2.2.3, in that it would represent a material change to the recreational amenity of this path that would last for the operational phase of the Development. It is assessed as a Neutral effect, in that it is subjective as to whether the recreational experience is improved or worsened, depending on the aspects the walker enjoys about that path.
- 216. It should be noted that purely visual effects on walkers during the operational phase are assessed (in Chapter 7) as Major, and significant, in terms of the EIA Regulations.

  2R486
- 217. This path will not be affected directly during the operational phase.
- 218. Indirect effects will be limited by intervening vegetation, and by the baseline environment which includes active agricultural activity and polytunnels. The solar PV modules and their mounting structures may be visible through vegetation for short sections of this path, but will be static and will not block views that are, in the baseline, open. Effects on recreational amenity are assessed as **Negligible**, in accordance with section 13.2.2.3, and, given it is a local path, the effect would be not significant in terms of the EIA Regulations.
  - ZR488, ZR692 and CW90
- During the operational phase of the Development, ZR692, which crosses the private road to Cleve Hill Substation where it meets Seasalter Road, will experience marginally increased traffic levels accessing the site as a result of Development operational traffic adding to baseline Cleve Hill Substation traffic, but reduced levels of agricultural traffic. Predicted operational phase traffic levels are very low (see Chapter 14: Access and Traffic), however, as are PRoW usage levels, and any effect from this would be of Negligible magnitude, and given the local nature of the path, not significant in terms of the EIA Regulations.



- 220. The remainder of ZR692 and CW90 would have no direct effects, and only distant views of the electrical compound bund and vegetation screening off to the west side of the path. This would be of Negligible magnitude and not significant in terms of the EIA Regulations.
- ZR488 would have views of solar PV modules and their mounting structures at a distance of c. 30 m over a path length of c. 200 m. Where ZR488 passes up the side of Cleve Hill, through Field Z, it would benefit from an improved surface of lowland meadow (grass sward) and surroundings also of lowland meadow, relative to the cultivated arable field of the baseline. Views, as the walker climbs or descends Cleve Hill, would be afforded across the extent of the Solar Park to the northwest. On balance, this is assessed as a neutral effect of Minor magnitude, in accordance with section 13.2.2.3, and, given it is a local path, the effect would be not significant in terms of the EIA Regulations.

NCN 1

- 222. Effects on cyclists on this route assessed elsewhere in this ES include:
  - Visual effects over a c. 800 m stretch of Faversham Road/Seasalter Road, between the Sportsman public house and the entrance to the Cleve Hill Substation; these effects are assessed in Chapter 7: Landscape and Visual Impact Assessment as being significant during the first 5 years of the operational phase; and
  - Potential glint and glare effects on users of Seasalter Road, once the solar panels are constructed, for two stretches of c. 150 m each where glint/glare effects may potentially occur, one to the north of the existing Cleve Hill Substation junction, and one to the south, but that the effect is minor, and not significant; these are assessed in Chapter 17: Miscellaneous.
- 223. There is potential for "in combination" (or interrelationship) effects on recreational amenity, which are assessed here.
- During the operational phase, the moderate magnitude visual effects associated with the newly formed electrical compound bund and substation, together with views of the solar PV modules (albeit at a distance of 500 m or more) will be noticeable to cyclists travelling west, from Whitstable towards Faversham, for 800 m south from the Sportsman public house to the Cleve Hill Substation site entrance. Glint and glare effects may, for up to 15 minutes per day, in late afternoon in the summer months, when the sun is shining, be noticeable for 150 m of the same stretch of Seasalter Road, as well as 150 m of Seasalter Road south of Graveney Hill. These effects will be viewed in the same direction as the sun, and at much lower intensity similar to the sun shining off water. The difference between the visual effects and the overall change is expected to be detectable, occasionally, but non-material, and so is assessed as **minor**, and not significant.

Bird and Wildlife Watchers

225. Recreational enjoyment of observing birds and other wildlife near the Recreational Core Study Area occurs principally from the sea defence wall, accessed by using the Saxon Shore Way path. From this path, there are open views towards the intertidal zone of the Swale channel, which is the principal habitat for birds in the area. There are also views across the fields within the Recreational Core Study Area, of which the main wildlife interest is in the foreground, and along the drainage ditches throughout the Area. During both the construction and operational phases, effects on birds are assessed in Chapter 9: Ornithology as not significant. The seaward side of the sea defence will not be affected by the Development. The landward side will involve the arable fields being replaced by solar PV modules, but with wider grassland areas either side of each ditch. In addition, the habitat management area in the northeast of the Recreational Core Study Area will be managed to be of improved value to birds of importance to the Swale designated area (brent geese, lapwing and golden plover). It is expected that these species will use this



are more intensively than in the baseline scenario once the Development is operational. Following construction, the ditch habitats will also be improved, as set out in Chapter 8: Ecology. Both of these areas will provide improved opportunity for watching birds and other wildlife than in the baseline scenario.

226. The significant visual effects assessed in Chapter 7 are less relevant for the recreational amenity of bird and wildlife watchers (less than for walkers), and hence the change, during the operational phase, in recreational amenity for bird and wildlife watchers is expected to be detectable, but non-material, and so is assessed as **minor**, and not significant.

#### 13.5.2.3 Land Use

- 227. Whilst the landownership would not change as a result of the Development, the operation of the Development will have an effect on the prevailing land use and farming operations will be changed. Land will be taken out of arable crop production, and instead areas of sheep grazing will be provided along with solar farm operation. This change is mitigated by the joint future land use of the Development and sheep grazing, as opposed to if the future land use was only the Development.
- 228. Embedded mitigation measures, in the form of landscape and biodiversity enhancements, are introduced in section 13.4 and detailed in Technical Appendix A5.2. Such enhancements will result in a net gain of more diverse habitats, as set out in Chapter 8: Ecology.
- 229. Post-construction, the land will largely be able to return to its natural state preagricultural cultivation which will allow microbiota and organic matter, crucial to soil health and environmental processes, to colonise the soil. This will have a regenerative effect upon the topsoil and subsoil layers. In order to mitigate the loss of arable farmland, the areas around and under the solar PV modules will be seeded with a grass and wildflower mix before construction starts and, post-construction, sheep will be allowed to graze. It is expected these measures will allow a greater biodiversity of plant species compared to the current monoculture cultivation, although the growth of some species will be limited by sheep grazing<sup>53</sup>. The Development will benefit land use in terms of the health and structure of the soil which will improve through the re-establishment of organic matter, which will have suffered due to years of intensive agriculture. The long-term impact of the Development on land use, in terms of soil quality, will be positive, minor and not significant in terms of the EIA Regulations.
- 230. The value of the land used for the Development would be higher than the value of the land for its current use, due to the lease payments made to the landowners by the Applicant. This represents a long-term, local, beneficial effect that is considered to be not significant in terms of the EIA Regulations.

# 13.6 Mitigation Measures and Residual Effects

- 231. Mitigation measures embedded within the design of the Development are described in section 13.4 of this chapter.
- 232. Where significant effects have been identified upon the locally important rights of way network within and adjacent to the Development during the construction period mitigation measures are proposed to reduce, remove or offset these effects.
- 233. No other mitigation is proposed in respect of socio-economics, tourism and land use, and therefore all other residual effects remain as assessed in section 13.5 of this chapter.

<sup>&</sup>lt;sup>53</sup> English Nature (Now Natural England) (2006). The Importance of Livestock for Wildlife Conservation. [online] English Nature. Available at: http://download.cnet.com/PDF-Download/3000-11745\_4-10455334.html [Accessed 15 May 2018].



# 13.6.1 Construction Phase Mitigation

- The Applicant will seek to raise awareness within the local community of, supply chain and employment opportunities, in order to promote local socioeconomic benefits.
- A separate PRoW Management Plan has been developed which is provided as Appendix G to the Outline CTMP, which is Technical Appendix A14.1 of this ES. This sets out management measures to mitigate direct effects on users of the PRoW network around the Recreation Core Study Area. Essentially this implements the Development Description set out in Chapter 5, and the effect of this mitigation is already accounted for in the assessment of direct effects in section 13.5.1.4.
- Information will be provided to the public about where construction is taking place within the site, and this will be updated on a month to month basis. Subject to the agreement of relevant landowners and rights holders, information notices will be placed at either end of the stretch of the Saxon Shore Way/ZR484/CW55 that passes the Development site, on the Cleve Hill Solar Park website and at Faversham Tourist Information Centre. Specific locations for which permission has been or will be granted will be agreed with Kent County Council prior to the commencement of construction. The notices will also highlight other paths in the area that recreational users might consider as alternatives. Whilst this mitigation is aimed at reducing effects on would-be users of the Saxon Shore Way, it does not change the effect on people that actually do use it while construction occurs, and the residual effects are assessed the same as in section 13.5.1.4.

#### 13.6.2 Operational Phase Mitigation

- 237. The embedded mitigation summarised in section 13.4 encompasses the creation of habitat and the creation of a new permissive path, as well as grassing and maintaining the surfaces of the paths ZR488 and ZR485 that pass through the Development site.
- 238. No specific measures beyond this are proposed for the operational phase of the Development, and all residual effects therefore remain as assessed in section 13.5.2.2.

#### 13.7 Cumulative Effects Assessment

239. Cumulative developments within 10 km of the Development have been identified in Chapter 2: Environmental Impact Assessment. These cumulative developments have been reviewed for the potential to create cumulative effects in conjunction with the Development, a summary of which is provided in the following subsections.

#### 13.7.1 Socio-economics and Tourism

- 240. The cumulative effects of the Development on socio-economics and tourism receptors is qualitatively assessed here as it is not possible to obtain the level of detail required for a quantitative assessment for each of the cumulative developments.
- 241. Existing developments are considered to form the baseline and so do not require assessment here.
- 242. Positive effects of construction have not been assessed as these rely on quantitative figures that are not available for the cumulative developments.
- 243. It is possible that the combination of the Development and developments in proximity to the network could impact negatively on the local tourism economy. These draw in information from the following chapters:
  - Traffic, Chapter 14: Access and Traffic;
  - Noise, Chapter 12: Noise and Vibration;
  - Dust, Chapter 16: Air Quality; and
  - Landscape and Visual effects, Chapter 7: Landscape and Visual Impact Assessment.



244. A review of the cumulative effects assessments within these chapters indicates that there will not be a significant effect resulting from cumulative developments in combination with the Development and that the significance of effects remains **Negligible** for Swale, Canterbury and Kent.

#### 13.7.2 Recreation

- 245. The residual effects identified upon the locally important public rights of way network for the Development in isolation have the potential to contribute to a cumulative effect if there are other developments in proximity to the network. As with socio-economics and tourism, existing developments are considered to form the baseline and so do not require assessment here. Cumulative visual effects on outdoor recreational facilities such as rights of way resulting from the Development in conjunction with other developments in the area are assessed in Chapter 7: Landscape and Visual Impact Assessment.
- 246. No cumulative developments have been identified with the potential to create direct or substantial indirect effects on the same receptors assessed in section 13.5. Given this, no direct cumulative effects on recreational receptors are anticipated.

# 13.7.3 Land Use

247. Given the amount of arable and grassland available in the area together with the availability of similar ALC Grade 3b land or better in the surrounding area, the cumulative effects on land use is considered to be negligible and not significant.

#### 13.8 Summary of Likely Effects

248. A summary of the effects, mitigation and residual effects discussed in this chapter is included in Table 13.19 for the construction and operational phases. Decommissioning effects are assessed as being the same as construction phase effects, in accordance with section 13.2.1.1.

Table 13.19 Summary of Effects

Potential Effect	Nature of Effect	Mitigation	Residual Significance
Construction Phase			
Socio-economics			
Economic Effects in terms of temporary construction employment and GVA	Beneficial	N/a	National: Negligible – not significant
			Kent: Minor – not significant
			Swale: Minor – not significant
			Canterbury: Minor – not significant
Skills and unemployment Effects in terms of local construction employment	Beneficial	N/a	National: Negligible – not significant
opportunities			Kent: Negligible – not significant
			Swale: Moderate - significant
			Canterbury: Minor – not significant



Potential Effect	Nature of Effect	Mitigation	Residual Significance
Tourism			
Effects on the local tourism economy during construction	Adverse	N/a	Kent: Negligible – not significant Swale: Negligible – not significant Canterbury: Negligible – not significant
Recreation			
Saxon Shore Way and the proposed England Coast Path, ZR484: Indirect effects on recreational amenity on c. 1 km of path at any point in time over c. 12 months of the construction phase	Adverse, short-term, localised	Information provision	Moderate - Significant
ZR485 Indirect effects on recreational amenity	Adverse, short-term, localised	Information provision	Moderate –Significant
ZR486, ZR488, ZR692 Indirect effects on recreational amenity	Adverse, short-term, localised	N/a	Minor – not significant
CW90 Indirect effects on recreational amenity	Adverse, short-term, localised	N/a	Negligible – not significant
NCN 1 Indirect effects on recreational amenity	Adverse, short-term, localised	N/a	Minor – not significant
Bird and Wildlife Watchers Indirect effects on recreational amenity	Adverse, short-term, localised	N/a	Minor – not significant
Land use			
Assessed under Operational Phase	N/a	N/a	N/a
Operational Phase			
Socio-economics			
No effects assessed in the ES	N/a	N/a	N/a
Tourism			
Effects on the local tourism economy during construction	Adverse	N/a	Kent: Negligible – not significant Swale: Negligible – not significant Canterbury: Negligible – not significant



Potential Effect	Nature of Effect	Mitigation	Residual Significance
Recreation			
Saxon Shore Way, the proposed England Coast Path and ZR484: Indirect effects on visual aspects only of recreational amenity on c. 5 km of path	Adverse, long-term, localised	N/a	Minor – not significant
ZR485 Direct effects of improved path surface Indirect effects on visual aspects, open space, glint and glare, and improved ecological habitat of recreational amenity	Neutral, long-term, localised	N/a	Moderate –Significant
ZR488 Direct effect of improved path surface Indirect effects on visual aspects only of recreational amenity on c. 600 m of path	Neutral, long-term, localised	N/a	Minor – not significant
ZR486, ZR692, CW90 Indirect effects on visual aspects only of recreational amenity on c. 5 km of path	Adverse, long-term, localised	N/a	Negligible – not significant
NCN 1 Indirect effects on recreational amenity	Adverse, long-term, localised	N/a	Minor – not significant
Bird and Wildlife Watchers Indirect effects on recreational amenity	Adverse, long-term, localised	N/a	Minor – not significant
Land use			
Change to solar farm with sheep grazing and biodiversity gain	Positive	Landscape and Biodiversity Management Plan vegetation planting measures	Minor – not significant

#### 13.9 Statement of Significance

- 249. Positive socio-economic effects of the Development include those on local employment during the construction phase, these have been deemed not significant in terms of the EIA Regulations.
- 250. The effect of the Development on tourism during the construction and operational phases is a negligible adverse effect, which would be short term during the construction phase. Neither of these effects are significant in terms of the EIA Regulations.
- 251. Adverse effects have been identified during construction on the PRoWs which cross the Development. These effects were found to be significant on the Saxon Shore Way and the proposed England Coast Path, and local path ZR485, albeit for sections of c. 1 km only, over an approximately 12-month period, when construction activity occurs within 500 m of the footpath, and noting that the times when most walkers use the path are at weekends when construction activity will be limited to Saturdays until 13:00. Similar effects were found to be not significant on all other PRoWs around the site.



- 252. There will be a material change to local path ZR485, which crosses the Development site, during the operational phase. This includes beneficial and adverse elements and is assessed overall as neutral, and significant. During the operational phase, all other effects on users of all PRoWs within and around the site were assessed as not significant.
- 253. The effect of the Development on land use will be positive, minor and not significant; whilst there will be a change of land use from arable to solar park and sheep grazing the sensitivity of the land is low, being predominantly Grade 3b which is not classified as being the best and most versatile land. Habitat creation and enhancement is proposed as part of the Landscape and Biodiversity Management Plan (ES Technical Appendix A5.2).