THE DROVES
SOLAR FARM

The Droves Solar Farm

Chapter 15: Human Health (Clean)

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List of Contents

15 Human Health 1
15.1 Introduction 1
15.2 Consultation 2
15.3 Legislation, Planning Policy and Guidance 2
15.4 Assessment Assumptions and Limitations 3
15.5 Assessment Methodology 3
15.6 Baseline Conditions 14
15.7 Embedded Mitigation 23
15.8 Assessment of Likely Effects 25
15.9 Additional Mitigation Measures 33
15.10 Residual Effects 34
15.11 Cumulative Effects Assessment 34
15.12 Conclusion 45

List of Tables

Table 15.1 Geographical Study Area Definitions and rationale 5
Table 15.2 Identified Receptors 9
Table 15.3 Sensitivity Criteria of Identified Receptor 10
Table 15.4 Criteria for Determining Magnitude of Impact 11
Table 15.5 Scale of Effect 13
Table 15.6 Potential Human Health Effects, Receptors, Study Area and assessment phases 13
Table 15.7 Population health baseline indicators 15
Table 15.8 Vulnerable groups 16
Table 15.9 Open space (2023) against FiT targets 21
Table 15.10 Short List Developments/Allocations relevant to Human Health 35

Table 15.11 Summary of Residual Effects for Human Health.....46

List of Figures

Figure 15.1 Geographical Study Areas.....7

Figure 15.2 Open Space (2023) 22

List of Appendices

Appendix 15.1Consultation and Legislation, Planning Policy and Guidance

15 Human Health

15.1 Introduction

15.1.1 This chapter of the Environmental Statement (ES) presents the findings of the Environmental Impact Assessment (EIA) of effects on Human Health as a result of the Scheme.

15.1.2 This chapter identifies and proposes measures to address the potential impacts and likely significant effects on Human Health, during the construction, operational and decommissioning phases.

15.1.3 The information presented within this chapter has been informed by the Scheme information provided in **ES Chapter 5: The Scheme [APP/6.2]**.

15.1.4 The following aspects will be considered within the human health assessment process:

- An assessment of potential effects on physical activity during both the construction, operational, and decommissioning phases of the Scheme
- An assessment of potential effects on education and training during the construction operational, and decommissioning phase of the Scheme; and
- An assessment of potential effects on employment and income during both the construction and decommissioning phase of the Scheme.

15.1.5 This human health chapter has been prepared by Volterra Partners LLP (**See Appendix 1.1: Statement of Competence [APP/6.4]**).

15.1.6 It is noted that during Statutory Consultation, the Preliminary Environment Impact Report (PEIR) presented a combined chapter covering both Socio-economics and Human Health. For the purposes of the ES, these topics have been separated into distinct chapters. This approach has been adopted to improve clarity, ensure each topic is assessed in sufficient detail, and to align with the relevant technical guidance and assessment methodologies specific to each discipline.

15.1.7 Human Health is defined in line with the World Health Organisation's (WHO's) definition of health:

"a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity" (Ref 15-1).

15.1.8 In this assessment, changes to mental health outcomes are considered alongside changes to physical health outcomes. Literature on mental health is less well established compared to those related to impacts on physical health. For this reason, the literature around the impact on mental health often shows mixed findings, with differing impacts that varies from individual to individual, often due to personal (and in some cases subjective)

experiences. For this reason, the impact on mental health is considered inherently uncertain.

15.1.9 This document has been updated at Deadline 6 to consider the Longmarsh Green Energy project, for which the EIA Scoping Report was submitted to PINS in October 2026, in relation to the cumulative assessment of the Scheme. This demonstrates the proactive and robust nature of the Applicant's cumulative assessment, even though the information for Longmarsh Green Energy has been received at a late stage of the Examination. The document references have not been updated from the original submission. Please refer to the **Guide to the Application [APP/1.3.8]** for the list of current versions of documents.

15.2 Consultation

Scoping Opinion

15.2.1 On 8 November 2024, the Applicant submitted a Scoping Opinion Request to the Planning Inspectorate (PINS) (see **ES Appendix 2.1: EIA Scoping Opinion Request [APP/6.4])** in support of a request for a Scoping Opinion from PINS on behalf of the Secretary of State (SoS) pursuant to Regulation 10 of the EIA Regulations.

15.2.2 A Scoping Opinion (see **ES Appendix 2.2: Scoping Opinion [APP/6.4]**) was adopted by PINS on 18 December 2024.

15.2.3 The issues raised in the Scoping Opinion relating to human health are summarised and responded to within **ES Appendix 15.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**, which demonstrates how the matters raised in the Scoping Opinion are addressed in this ES.

Statutory Consultation and Preliminary Environmental Information Report (PEIR)

15.2.4 Statutory consultation was held between 21 May 2025 and 9 July 2025. Relevant responses to the PEIR relating to human health and how these have been addressed through the ES are set out within **ES Appendix 15.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

15.2.5 A further round of targeted consultation was undertaken between 3 September and 1 October 2025 following changes to the development boundary area of the Scheme presented in the PEIR and during Stage Two Statutory Consultation. Further detail regarding the targeted consultation is provided in **ES Chapter 1: Introduction [APP/6.1]**.

15.3 Legislation, Planning Policy and Guidance

15.3.1 A summary of applicable legislation, planning policy and other guidance documents against which the Scheme will be considered relating to assessment of human health is

set out in **ES Appendix 15.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

15.4 Assessment Assumptions and Limitations

15.4.1 The human health assessment has considered the following assumptions and limitations:

- As with any dataset, the baseline data will change over time. The most recent published data sources are used in this assessment where available, which is usually data from either 2023 or 2024, but where this has not been available, the next best alternative (i.e. from the most recent year available) is used as a proxy. The assessment is also limited by the geographic scale of data available. Wherever relevant and possible, data has been presented at a suitably detailed level; and
- As a result of the coronavirus pandemic, some recent data detailing health conditions and other relevant information, such as unemployment rates, might not accurately reflect trends experienced prior to and following the extraordinary conditions during that time. These potential differences are deemed to affect all geographies in a similar way such that the characterisation of the relevant study areas is sufficiently representative that a material difference to the overall assessment would not occur.

15.4.2 The health assessment is based on other technical assessments in the ES, including:

- ES Chapter 6: Landscape & Visual **[APP/6.2]**
- ES Chapter 10: Noise **[APP/6.2]**
- ES Chapter 11: Soils and Agriculture **[APP/6.2]**; and
- ES Chapter 14: Socio-economics **[APP/6.2]**.

15.4.3 The assumptions and limitations of the respective documents and assessments considered also apply to this ES chapter.

15.5 Assessment Methodology

15.5.1 This section sets out the scope and methodology for the assessment of the impacts of the Scheme on Human Health.

Sources of Information

15.5.2 Existing baseline Health conditions have been established through the interpretation of nationally recognised research, data and survey information. The year 2025 or the most recent data period is presented to reflect the current baseline position. The following sources of information that have been consulted in the preparation of this chapter.

- ONS, Census 2021 (Ref 15-2)
- Public Health England; (Ref 15-3); and

- Norfolk and Waveney Integrated Care System (Ref 15-4)

15.5.3 While current baseline conditions are presented to identify existing issues, assessing potential effects against a future baseline can provide a more robust and precautionary basis for understanding impacts. It is not always appropriate to assess all effects solely against present-day conditions, as baseline conditions are likely to evolve between now and the Scheme's operational phase. A future baseline has not been presented for this assessment due to the inherent uncertainty in forecasting future health outcomes and the lack of sufficiently reliable data to support a meaningful projection. As such, Human Health effects are assessed against the current baseline only.

Potential Impacts

15.5.4 Embedded mitigation measures being incorporated into the design and construction of the Scheme are set out in Section 15.7. Prior to the implementation of any mitigation (embedded or additional), the Scheme has the potential to have an effect on human health receptors (beneficially or adversely), during the construction, operational and decommissioning phases in the following ways:

- Employment (Direct, indirect and induced construction jobs supported by the delivery of the Scheme) – Beneficial
- Provision of education, skills, training and supply chain – Beneficial; and
- Physical activity – Adverse (construction and decommissioning phases) and Beneficial (operational phase).

Approach to assessing well-being impacts

15.5.5 Well-being is assessed in line with IEMA guidance, which recognises that health is comprehensive, encompassing physical, mental, and social wellbeing. [Ref 15-5] These outcomes are shaped by a wide range of wider determinants of health, from economic security and employment to housing, environment, and social networks, and it is the interaction of these determinants that should inform the assessment of population and human health. In practice, this means considering how each impact of the Scheme may influence well-being as well as physical health. For example, the creation of employment opportunities can positively support well-being by improving financial security and social inclusion. This is considered in this assessment.

15.5.6 Uncertainty associated with significant development close to people's homes may negatively affect well-being, as studies have shown links between stress and anxiety in such contexts [Ref 15-6]. As such, the Applicant is committed to mitigating potential adverse effects on well-being by keeping residents up to date with the application and design process through co-design, statutory consultation workshops, and close coordination with RWE (in relation to the adjacent High Grove Solar scheme). This approach will ensure residents remain informed and engaged throughout and will continue post-application.

Electromagnetic Fields (EMF) well-being concerns

15.5.7 One of the main wellbeing concerns often associated with solar developments is the perceived health risk from EMF generated by associated equipment and electrical infrastructure. Literature distinguishes between the impact of ionising radiation, such as that emitted by undergoing X-ray scanners, and non-ionising radiation, such as that emitted by mobile phones and by the generation of electricity (Ref 15-7). According to the WHO, there is no evidence that the latter is harmful to human health provided it falls within guidance levels (Ref 15-8).

15.5.8 The Scheme would result in the creation of new sources of EMF. However, as concluded in the EMF Risk Assessment (**ES Appendix 16.4 [APP/6.4]**), there is no potential for significant effects as a result of the Scheme in respect of EMF. Given the Scheme is below EMF reference levels (see EMF Risk Assessment (**ES Appendix 16.4 [APP/6.4]**)), there is no evidence to suggest that EMF radiation caused by the Scheme would result in any adverse health effects.

15.5.9 While the evidence indicates no human health effects are expected, it is recognised that perceived risks of EMF exposure can influence wellbeing, primarily through anxiety or stress. Such effects are generally associated with uncertainty or lack of information rather than exposure itself. The Applicant will provide clear information to the public on EMF levels and compliance through the Community Liaison Group (see the outline Construction Environmental Management Plan (oCEMP) **[APP7.6],** outline Operational Environmental Management Plan (oOEMP) **[APP/7.8],** and outline Decommissioning Strategy (oDS) **[APP/7.10]**. This will help reduce the likelihood of any perceived effects leading to measurable health outcomes.

Study Area

15.5.10 Table 15.1 outlines the various geographical study areas used in this assessment, either as direct study areas or geographical comparators.

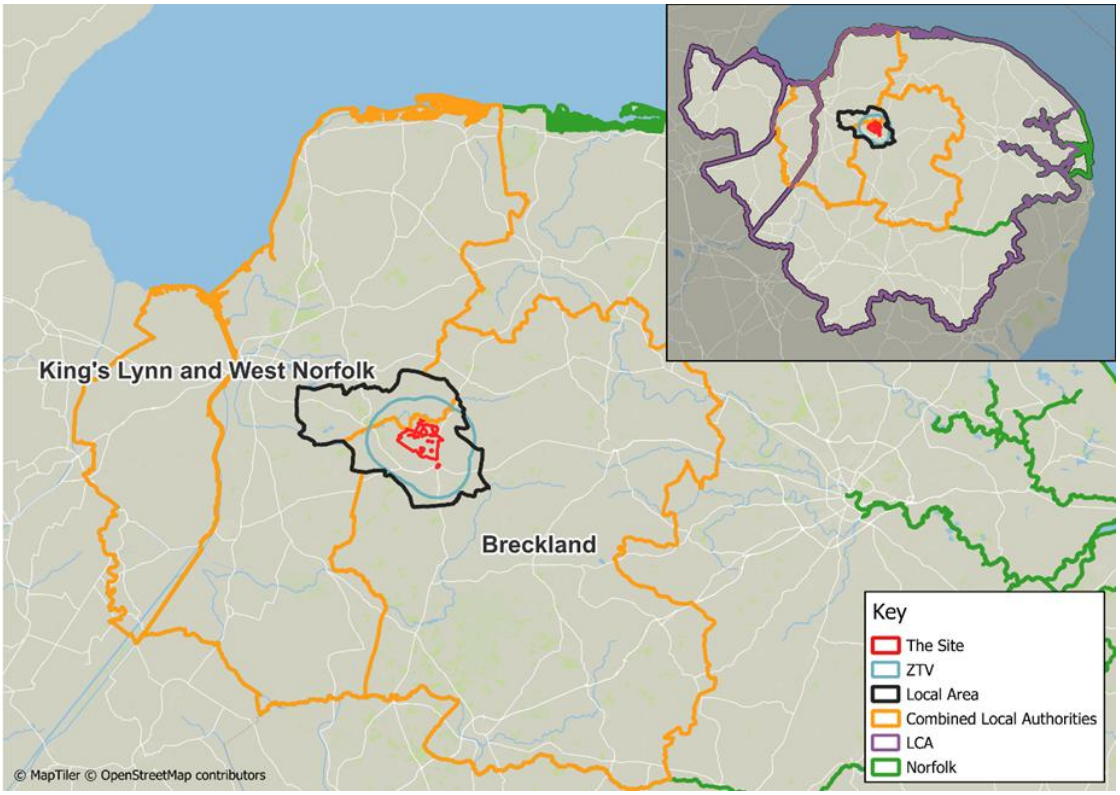
15.5.11 The spatial scope may vary widely, dependent on the nature of the effect. Effects on the receptors identified is possible at the local, sub-regional and national levels. Study areas have been informed using professional judgement on the geographical extent of where likely significant Human Health effects may be reasonably expected to occur as a result of the Scheme. The Study Area does not necessarily capture where the receptor originates from, rather it indicates where the human health effects are expected to occur.

Table 15.1 Geographical Study Area Definitions and rationale

Geographical study area	Definition
The Site	Area consisting of the Solar PV Site, Associated Development, Ancillary Infrastructure and Highway Works and any other element or component that forms part of the Scheme.

Geographical study area	Definition
Local Area	The Local Area comprises of the following Lower Layer Super Output Areas (LSOAs) surrounding the Site: King's Lynn and West Norfolk 012D, Breckland 002C, Breckland 007A, Breckland 007B, Breckland 007C, Breckland 007D, Breckland 007E.
Zone of Theoretical Visibility (ZTV)	A 3km radius from the Scoping Study Area, aligning with the ZTV – the maximum area of assessment for landscape and visual impact within **ES Chapter 6: Landscape and Visual [APP/6.2]** and is used to assess the effects on access to PRoW, open space, and physical activity and changes to local tourism assets.
Combined Local Authorities	King's Lynn & West Norfolk (KLWN), and Breckland. This is used to assess provision of education, skills and training.
Transport and Access Study Area	The Study Area, defined in **ES Chapter 9: Transport and Access [APP/6.2]**, includes nine road links expected to be used by vehicles accessing the Scheme, and is used for the changes in commuting patterns effect.
Labour Catchment Area (LCA)	A 60-minute travel time to the Site, as defined by the Local Authorities, intersects more than half of the area within the following local authorities: East Cambridgeshire, Fenland, South Holland, Breckland, Broadland, KLWN, North Norfolk, South Norfolk, Mid Suffolk, West Suffolk, Norwich, used for employment and related effects since this is considered a reasonable time in which workers would commute to the Site.
Sub-regional (As outlined in **ES Appendix 2.1: EIA Scoping Opinion Request [APP/6.4]**, the Scoping of human health referred to Norfolk as the ceremonial county. For the purposes of this assessment, the ceremonial county and the sub-region are considered to cover the same area of Norfolk.)	Norfolk, mostly used for context
Regional	East of England, mostly used for context.
National	England, mostly used for context.

Figure 15.1 Geographical Study Areas



Temporal Scope – Assessment Years

15.5.12 This section discusses the temporal scope that has been considered in the assessment of likely significant socio-economic effects.

15.5.13 The construction phase is anticipated to take place over up to 24 months. The final programme will be dependent on the detailed layout design and potential environmental constraints on the timing of construction activities. However, the Scheme is anticipated to energise in Q4 2033 or as early as National Grid are able to offer. Based on Q3 2033 energisation, it is anticipated that the earliest the construction phase would commence would be Q3 2031. There is likely to be a pre-construction period preceding the construction phase of approximately six months (Q1 and Q2 2031) to allow site preparation works.

15.5.14 The temporal scope will vary depending on the nature of the effect. The assessment establishes parameters that are likely to result in the maximum adverse likely significant effect (the worst-case scenario). For example, any change to the existing land uses is expected to begin occurring during the construction phase (2031 – 2033) and therefore 2031 is considered as the worst-case scenario as that is the earliest that receptors could be affected. The operational phase of the Scheme is proposed to be 60 years, from 2033 to 2093. Subject to the replacement activities referred to below, the effects are expected to be largely consistent across the operational phase. Operational effects are considered at the first year of operation which is therefore expected to be representative across the whole 60 year period.

15.5.15 During operation, other than in the context of a programme of replacement, activity on the Solar PV Site would be restricted principally to vegetation management, equipment maintenance and servicing, ad hoc replacement and renewal of any components that fail or reach the end of their lifespan, periodic fence inspection, vegetation management along accesses, permissive paths and landscape ecological mitigation maintenance, and monitoring to ensure the continued effective operation of the Scheme.

15.5.16 Along the Grid Connection Infrastructure, operational activity may consist of routine inspections and any reactive maintenance from National Grid.

15.5.17 The frequency of regular maintenance visits would reasonably be expected to be limited to no more than five visits per month to the Solar PV Site. Limited use of HGVs may be required for the ad-hoc replacement of components.

15.5.18 Decommissioning would occur following the 60 year operational phase and is anticipated to take approximately 12 to 24 months. While all the Solar PV Array including PV Modules, Mounting Structures, Inverters and Transformers, the BESS and Customer Substation would be removed during the decommissioning phase, it is assumed that the National Grid Substation and the Grid Connection Infrastructure would remain in situ.

15.5.19 Further detail on the construction, operational, and decommissioning phases of the Scheme can be found in **ES Chapter 5: The Scheme [APP/6.1]**.

Impact Assessment Methodology

15.5.20 The Human Health assessment follows the approach to undertaking EIA as explained in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**. The methodology for attributing sensitivity of receptors, magnitude of impacts and the significance of effects in relation to human health is described further below in this chapter of the ES.

Sensitivity of Receptor

15.5.21 This assessment considers both the general population and specific vulnerable subgroups as individually assessed receptors, in line with IEMA guidance on health impact assessment. This reflects a refinement of the approach taken at PEIR stage, where receptors were assessed collectively. Receptors are now assessed distinctly to increase the detail of the assessment in comparison to what was undertaken at PEIR and to fully align with IEMA guidance. Table 15.2 sets out the receptors that could experience likely significant human health effects.

15.5.22 While the general population baseline provides an overview of population-wide exposure and sensitivity to environmental change, certain groups, such as children, older people, low-income households, and those with pre-existing health conditions, are more susceptible to health impacts due to physiological, socio-economic, or behavioural factors. Disaggregating by subgroup allows the assessment to more accurately capture differential exposure, vulnerability, and potential inequalities in outcomes, and also to provide a proportionate assessment. This dual-level analysis ensures a more robust and inclusive

appraisal of health effects. Receptor groups include the general population and vulnerable groups. Receptor groups related to health have been identified with reference to the Welsh Health Impact Assessment Support Unit's Health Impact Assessment: A Practical Guide (Ref 15-9). Each receptor group has been assigned its own sensitivity to reflect how different populations may be affected by the Scheme.

15.5.23 For some receptor groups, such as existing and future workers, it is not possible to determine the proportion of individuals who may belong to vulnerable sub-groups. In these cases, a precautionary approach is taken by assuming that vulnerable individuals are present within these populations in line with the current general health characteristics. While the identified vulnerable groups are generally considered to have a heightened sensitivity to health effects, it is also recognised that not all individuals within these groups will be equally sensitive.

Table 15.2 Identified Receptors

Receptor population group	Receptor population
General population	Existing and future residents
	Existing and future workers
Vulnerable groups	Children and young people (aged under 18)
	Children and young people (aged under 18) with obesity
	Older people (aged over 65)
	Income-related groups: low-income groups, unemployed, economically inactive, people unable to work due to ill health
	People with disability and long-term illness (including mental health issues, dementia, autism and epilepsy)
	Single-parent families
	Ethnic minority groups
	Religious groups

15.5.24 The sensitivity of likely impacted receptors, defined depending on the vulnerability, recoverability and value/importance of the receptor, to potential effects arising from the Scheme is assessed in line with the below, as detailed in Table 15.3.

15.5.25 Receptor sensitivity is the ability of a given receptor to respond to change. With regards to human health, sensitivity is determined by the number of people exposed to the human

health effect and the extent to which the exposed population experiences inequalities in human health or can access services and facilities. The health criteria used to determine sensitivity of receptors is drawn from the IEMA's (2022) Determining Significance for Human Health In Environmental Impact Assessment (Ref 15-10).

15.5.26 The ascribed sensitivity of the identified receptors is detailed as part of the Baseline Conditions (Section 15.6), due to the receptor sensitivity being intrinsically linked to the contextual baseline.

Table 15.3 Sensitivity Criteria of Identified Receptor

Sensitivity	Description
High	High levels of deprivation (including pockets of deprivation); reliance on resources shared (between the population and the project); existing wide inequalities between the most and least healthy; a community whose outlook is predominantly anxiety or concern; people who are prevented from undertaking daily activities; dependants; people with very poor health status; and/or people with a very low capacity to adapt; high prevalence of vulnerable groups. **Additional consideration – vulnerable groups**: Sensitivity is increased where there is a high concentration of vulnerable groups with poor health status or very limited ability to adapt.
Medium	Moderate levels of deprivation; few alternatives to shared resources; existing widening inequalities between the most and least healthy; a community whose outlook is predominantly uncertainty with some concern; people who are highly limited from undertaking daily activities; people providing or requiring a lot of care; people with poor health status; and/or people with a limited capacity to adapt; medium prevalence of vulnerable groups. **Additional consideration – vulnerable groups**: Sensitivity is increased where vulnerable groups are present in notable proportions with limited capacity to adapt.
Low	Low levels of deprivation; many alternatives to shared resources; existing narrowing inequalities between the most and least healthy; a community whose outlook is predominantly ambivalence with some concern; people who are slightly limited from undertaking daily activities; people providing or requiring some care; people with fair health status; and/or people with a high capacity to adapt. **Additional consideration – vulnerable groups**: Sensitivity remains low where vulnerable groups are present in small numbers and generally able to adapt with available support.
Negligible	Very low levels of deprivation; widespread access to alternatives where shared resources exist; no clear health inequalities within the community; a population whose outlook is predominantly confident or unaffected; people who are not limited in undertaking daily activities; no reliance on care; people with good or very good health

	status; and/or people with a very high capacity to adapt; very low or absent prevalence of vulnerable groups. **Additional consideration – vulnerable groups**: Sensitivity is negligible where vulnerable groups are absent or present in very small numbers with strong resilience.

Magnitude of Impact

15.5.27 The categorisation of the magnitude of impact takes into account the following factors:

- Extent
- Duration
- Frequency; and
- Reversibility

15.5.28 The magnitude of impact is the level of change caused by the Scheme and is defined in Table 15.4. The criteria for determining magnitude of impact are the same for both the general population and vulnerable groups.

Table 15.4 Criteria for Determining Magnitude of Impact

Magnitude of Impact	Description
High	Adverse: High exposure or scale; long-term duration; continuous frequency; severity predominantly related to mortality or significant negative changes in physical or mental health (e.g. severe illness or injury); permanent change affecting a majority of the population; substantial negative implications for health service quality or capacity.
	Beneficial: High exposure or scale; long-term duration; continuous benefit; significant improvement in physical or mental health (e.g. reduced mortality or serious morbidity); majority of population benefits; permanent positive change; substantial improvement in health outcomes or service quality.
Medium	Adverse: Medium scale or low exposure; medium-term duration; frequent events; severity predominantly related to moderate deterioration in morbidity or major reduction in quality of life; large minority of population affected; effects are reversible over time; minor adverse implications for service quality.
	Beneficial: Medium scale or low exposure; medium-term duration; frequent benefits; moderate improvement in morbidity or major uplift in quality of life; large minority of population benefits; effects are sustained but potentially reversible; minor improvement to health service quality.

Magnitude of Impact	Description
Low	Adverse: Small scale or very low exposure; short-term duration; occasional events; severity relates to minor deterioration in morbidity or moderate reduction in quality of life; small minority of population affected; effects reverse quickly; slight service quality implications.
	Beneficial: Small scale or very low exposure; short-term duration; occasional benefits; minor improvement in morbidity or moderate uplift in quality of life; small minority of population benefits; quickly realised and reversible; slight improvement in service quality.
Negligible	Adverse: Negligible exposure or scale; very short-term duration; one-off event; minor, temporary reduction in quality of life for a very small number of people; effects are immediately reversible; no meaningful impact on health service provision.
	Beneficial: Negligible exposure or scale; very short-term duration; one-off benefit; minor, temporary improvement in quality of life for very few people; effects are fleeting and not measurable at population level; no effect on health service provision.

Categorising Scale of Effect

15.5.29 The scale of effect that the Scheme may have on an impacted receptor has been influenced by a combination of the sensitivity of the identified receptors and the magnitude of impact.

15.5.30 As this assessment distinguishes between the general population and vulnerable groups (see paragraph 15.5.21), the scale of effect is determined separately for each receptor group. This means that for a given effect, two results are reported: one reflecting the general population and one reflecting the vulnerable groups. This ensures that differences in sensitivity between groups are explicitly captured, in line with IEMA guidance.

15.5.31 There are four categories demonstrating the scale of effect:

- Negligible
- Minor
- Moderate; and
- Major.

15.5.32 The nature of effects is defined as either: temporary (construction and decommissioning phase) or long-term (operational phase).

15.5.33 This assessment also identifies whether the effect is ‘direct’ (i.e., resulting without any intervening factors) or ‘indirect’ (i.e., not directly caused, or resulting from something else).

Table 15.5 Scale of Effect

Magnitude of Impact	Sensitivity			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Negligible
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

15.5.34 The nature of effects is defined as either beneficial or adverse

Determining the Significance of Effect

15.5.35 The following criteria are applied:

- Moderate or Major effects are classed as 'significant'
- Minor effects are classed as not 'significant', although they may be a matter of local concern; and
- Negligible effects are classed as 'not significant'.

Summary of Effects

15.5.36 The following table summarises the above information, showing the receptors, study area and temporal scope for each effect, as shown below in Table 15.6.

Table 15.6 Potential Human Health Effects, Receptors, Study Area and assessment phases

Potential effect	Receptor(s)	Study Area	Assessment year(s)
Employment (Direct, indirect and induced construction jobs supported by the delivery of the Scheme)	Residents, workers, relevant vulnerable groups (low-income groups, people with a long-term illness or disability, single-parent families, and ethnic minority groups)	LCA	Construction and decommissioning phases
Provision of education, skills,	Residents, workers, relevant vulnerable groups (people with	Combined Local Authorities	Construction, operational, and

Potential effect	Receptor(s)	Study Area	Assessment year(s)
training and supply chain	disabilities, and single-parent families)		decommissioning phases
Physical activity	Residents, relevant vulnerable groups (young people, young people with obesity, older people, people with a long-term illness or disability, and single-parent families)	Zone of Theoretical Visibility (ZTV) as defined in **Chapter 6: Landscape and Visual [APP/6.2]**	Construction, operational, and decommissioning phases

15.6 Baseline Conditions

15.6.1 The methodology used to determine the sensitivity of baseline conditions to relevant receptors is outlined in Table 15.2. Relevant study areas for the baseline conditions, presented by likely significant effect, are also defined and illustrated in Table 15.6.

15.6.2 This section begins with a summary of the overall demographics and population health, followed by focused baselines for each relevant human health effect within the various study areas.

The Order limits

15.6.3 The Scheme is located within the administrative areas of Norfolk County Council (NCC) and Breckland Council (BC), who are the host authorities, and adjacent to the administrative boundary of the Borough Council of KLWN. A full description of the Order limits is provided in **ES Chapter 5: The Scheme [APP/6.1]**.

Population health baseline

15.6.4 Table 15.7 presents a range of health indicator statistics at the local authority, regional, and national level. The life expectancy for Breckland residents is higher than the regional and national averages for both men and women. KLWN residents, meanwhile, have a life expectancy that is above the national average but below the regional average for men and women (Ref 15-1)].

15.6.5 Both assessed local authorities have a higher proportion of residents who are classed as disabled under the Equality Act 2010 than regional and national averages, with 8% and 9% of residents in Breckland and KLWN respectively reporting that their disabilities limit their day-to-day activities ‘a lot’ (Ref 15-12).

15.6.6 A higher proportion of residents in both assessed local authorities are classed as overweight or obese than the regional and national averages (Ref 15-13). There are, however, stark differences in the prevalence of behavioural risk factors. Residents of

KLWN report higher levels of smoking and hospital admissions for alcohol related illness than the regional average, whilst also having a lower proportion of adults who are physically active (Ref 15-14). Breckland, meanwhile, has lower rates of smoking and hospital admissions for alcohol related illnesses than all comparator study areas, but has a proportion of physically active adults that is similar to the regional and national averages (Ref 15-15).

15.6.7 Regarding mental health indicators, Breckland has a greater proportion of residents reporting that they have 'Poor' levels of happiness than all other comparator geographies (Note: Poor wellbeing is defined as: individuals who report the following measures as: life satisfaction: people rating their overall satisfaction with their life as low; worthwhile: people rating how worthwhile they feel the things they do in life are as low; happiness: people rating how happy they felt yesterday as low; feeling anxious: people rating high feelings of anxiety yesterday).

Table 15.7 Population health baseline indicators

Health measure	Breckland	KLWN	East of England	England
Life expectancy - male	79.9	79.1	79.8	78.9
Life expectancy - female	83.6	83.2	83.5	82.8
% of residents reporting bad or very bad health	5%	6%	5%	5%
% of residents who are disabled: day to day activities limited a lot	8%	9%	7%	7%
% of residents who are disabled: day to day activities limited a little	12%	12%	10%	10%
% of residents classed as overweight or obese	72.1	70.0	65.9	64.5
% of adults who smoke	9.5	17.6	11.5	11.6
Admissions for alcoholic conditions per 100,000 residents	349	524	394	581
% of adults who are physically active	67.1	61.4	67.7	67.1

Health measure	Breckland	KLWN	East of England	England
% of residents reporting 'Poor' levels of anxiety	22.6	20.9	22.6	23.3
% of residents reporting 'Poor' levels of happiness	11.8	5.5	7.8	8.9
Sources: Public Health England, 2025. Local Authority Health Profiles. ONS, 2025. Personal well-being estimates by local authority. ONS, 2025. TS038 - Disability				

Vulnerable Populations

15.6.8 Table 15.8Table 15.8 summarises the vulnerable populations present in each study area. The population share of vulnerable groups is compared to the shares in the local authority, regional, and national areas, to determine if these groups are highly prevalent in the area. The relative presence of vulnerable population for each effect informs the sensitivity of the receptor population.

15.6.9 Vulnerable groups are shaded in light green when they are less prevalent than the national average, and orange when they are more prevalent.

15.6.10 Breckland and KLWN share similar vulnerable group profiles, having an age profile that is skewed towards older residents, a high proportion of residents who are classified as disabled, and low prevalences of other vulnerable groups. These findings are echoed across local policy and evidence bases, including the Norfolk Joint Strategic Needs Assessment (JSNA) (Ref 15-16).

Table 15.8 Vulnerable groups

Vulnerable group	Measure Used	Breckland	KLWN	East of England	England
Children and young people	% of residents aged under 18	19%	20%	22%	22%
Older people (Aged 65 and over)	% of residents aged 65+	25%	26%	20%	19%
Income-related groups	Unemployment rate	3.7%	3.9%	4.2%	4.9%

Vulnerable group	Measure Used	Breckland	KLWN	East of England	England
People with disabilities and long-term illnesses	% of residents disabled under Equality Act	20%	20%	17%	17%
Single-parent families	Single parent families with dependent children as a % of households	5%	5%	6%	7%
Ethnic minority	% of residents	11%	11%	22%	26%
Religious groups	% of residents identifying as having a religious belief	52%	54%	54%	57%
Source: ONS, 2025. Census 2021 ONS, 2025. Population estimates – local authority by single year of age					

Employment (Construction and Decommissioning Phase)

15.6.11 There is a well-established link between employment and health outcomes. Good quality work is associated with improvements in health, whilst unemployment is associated with poor health outcomes (Ref 15-17). These impacts are comprehensively laid out by the Marmot Review (2018), which details the close relationship between work and a range of health outcomes. It details, for example, how unemployment is linked with increased rates of long-term illness and cardiovascular disease, whilst adverse working conditions are associated with general ill health, coronary heart disease and musculoskeletal disorders (Ref 15-18).

15.6.12 One avenue through which employment impacts health is through behaviour. Unemployment is associated with higher rates of alcohol consumption and smoking, and decreased rates of physical exercise [Ref 15-19]. Another avenue is through the impact of unemployment and mental health. As stated in **ES Chapter 14: Socio-economics [APP/6.2]**, the unemployment rate in the LCA is 3.7%, lower than the regional average of 4.2% and significantly below the national rate of 4.9% (Ref 15-20). The unemployment rate in LCA remains below the regional and national averages for all age groups.

Unemployment is linked to a range of negative mental health outcomes, including increased rates of anxiety and lower levels of life satisfaction (Ref 15-21).

15.6.13 Residents of KLWN report higher levels of anxiety (an average score of 3.3) than the regional average (3.2), indicating that they may be particularly vulnerable to further increases. Breckland, meanwhile, reports levels of anxiety that are below the regional average (3.1) (Ref 15-22). In addition, and as described in Table 15.8, Breckland, performs better than geographical comparators on indicators such as smoking prevalence and hospital admissions for alcohol-related illnesses. By contrast, KLWN, has a comparatively high proportion of residents who smoke and a high hospital admission rate for alcohol-related illnesses (Ref 15-23).

Sensitivity

General population

15.6.14 Overall, given the socio-economic context and existing health vulnerabilities within parts of the local population, there is potential for changes in employment to influence health outcomes, particularly in relation to mental health. Both residents and workers may be affected. The high unemployment rate, alongside factors such as elevated anxiety and lifestyle-related health risks, suggests that the population may be more susceptible to the wider effects of employment uncertainty. On this basis, the receptor populations (residents and workers) are deemed to have a medium sensitivity to changes in employment.

Vulnerable groups

15.6.15 Certain groups are considered to be more vulnerable to changes in employment and income, including low-income groups, people with a long-term illness or disability, single-parent families, and ethnic minority groups. These groups are more sensitive for specific reasons:

- **Low-income groups** often have little or no financial buffer, meaning that even small changes in employment status can directly affect their ability to meet basic needs, creating heightened stress and poorer health outcomes (Ref 15-24)
- **People with a long-term illness or disability** may face barriers to entering or remaining in the labour market, making them particularly exposed to job insecurity or loss of income, with knock-on effects for health and well-being [Ref 15-25]
- **Single-parent families** typically have fewer household earners and limited flexibility to absorb income shocks, meaning employment changes can have an immediate and disproportionate effect on family stability and children's well-being [Ref 15-26]; and
- **Ethnic minority groups** may face structural barriers and existing inequalities in employment, leaving them less resilient to job losses and slower to benefit from new opportunities [Ref 15-27].

15.6.16 Within the LCA, the prevalence of residents with a disability or long-term illness is notably higher than regional and national averages (20% compared with 17%). This indicates a

relatively larger vulnerable population, who are less resilient to employment shocks but also stand to benefit more from employment opportunities. On this basis, vulnerable groups are assessed as having a high sensitivity to changes in employment.

Provision of education, skills and training (Construction, Operational, and Decommissioning Phases)

15.6.17 Evidence suggests that longer durations in education are associated with positive mental health outcomes, including reductions in the incidence rate and severity of anxiety and depression symptoms. These impacts are assessed to come from a range of channels such as improved employment outcomes, and enhanced coping mechanisms [Ref 15-28].

15.6.18 In this context, educational and skills attainment is an important determinant of health across the study area. As stated in **ES Chapter 14: Socio-economics [APP/6.2]**, 22% of residents in Breckland, do not have a qualification, compared to 18% across England, which may constrain access to secure employment and reduce resilience to economic stressors (Ref 15-29). In KLWN, levels of education attainment are similarly below average.

15.6.19 Mental health indicators reflect these health challenges. In Breckland 15.0% of residents have common mental disorders, similar to the regional average (15.1%), a figure that is significantly lower than the national average (16.9%) [Ref 15-30]. KLWN, meanwhile, has a prevalence of common mental disorders (16.5%) which is significantly above the regional average but marginally below the national average (Ref 15-31).

15.6.20 Given the established links between education and mental health, initiatives to improve skills and qualifications, particularly for groups facing barriers to participation, could have positive impacts on mental wellbeing, both directly and indirectly through improved job prospects and security.

Sensitivity

General population

15.6.21 Evidence indicates that increased time in education can improve physical and mental health through better employment prospects and the development of life skills. While Breckland shows average levels of common mental health disorders, KLWN has a higher prevalence, suggesting the general population may be more vulnerable to disruptions or changes in education access. Furthermore, the local population overall has lower levels of qualifications compared with regional and national averages, which increases their reliance on education and skills provision to improve future employment opportunities. On this basis, the receptor populations (residents and workers) are deemed to have a medium sensitivity to changes in education and skills provision.

Vulnerable groups

15.6.22 Certain groups are considered to be more vulnerable to changes in education, skills, and training, including people with disabilities and single-parent families. These groups are more sensitive for the following reasons:

- **People with disabilities** often face barriers to accessing education and training, including accessibility constraints, discrimination, or additional support needs. These barriers reduce opportunities to build skills and access secure employment, making this group more affected by any change in provision. Conversely, improvements in provision can bring disproportionately positive impacts for this group [Ref 15-32]; and
- **Single-parent families** typically have greater time and financial pressures, limiting their ability to engage in training or skills development. Reduced access can therefore have an immediate and lasting effect on employability and household resilience, while improvements can be particularly beneficial in terms of long-term health and wellbeing (Ref 15-33).

15.6.23 Both groups face structural barriers to accessing education and training, and within Breckland and KLWN the prevalence of residents with a disability is notably higher than the regional and national average (20% compared with 17%). This indicates a larger share of the local population who may be affected by changes in provision. At the same time, these groups stand to gain particular health and wellbeing benefits from improved access to education and training opportunities. On this basis, vulnerable groups are assessed as having a high sensitivity to changes in education and skills provision.

Physical activity (Construction, Operational, and Decommissioning Phase)

Current Baseline

15.6.24 Physical activity is a key determinant of wider health, being conclusively linked to physical and mental health outcomes (Ref 15-34). Access to PRoW and open spaces has also been directly associated with higher levels of physical activity. Additionally, an increasing body of research highlights the positive relationship between physical activity and improved mental health and well-being, with finding greater exposure to green spaces and nature can help reduce blood pressure and lower stress levels (Ref 15-35). Therefore, open space and PRoW have been baselined below due to its close link to physical activity.

15.6.25 Receptor populations may be more sensitive to changes in access to open spaces, and PRoW, particularly in areas where existing access to such facilities is limited or where specific groups rely heavily on them for their health needs. For example, older people, who disproportionately use PRoW, would be significantly impacted by the closure of these routes.

15.6.26 As mentioned above, the proportion of adults in Breckland engaging in physical activity is on par with the regional and national levels but KLWN is significantly lower than the comparative study areas (Ref 15-36). However, the ZTV encompasses a higher population density within Breckland, particularly around Swaffham, which shows that

levels of physical activity in the area most directly affected are in line with wider benchmarks.

15.6.27 As identified in **ES Appendix 6.9: Amenity and Recreation [APP6.4],** there are a total of 7 PRoWs which pass through the Site and a further 14 within a 3km study area identified as the ZTV (this has been used within **ES Chapter 6: Landscape and Visual [APP/6.2] and ES Appendix 6.9: Amenity and Recreation [APP/6.4]),** including Peddars Way and Nar Valley Way.

15.6.28 Although physical activity is assessed at the ZTV level, open space data is not available at this scale. Therefore, the defined Local Area is used to establish the baseline for this effect. Figure 15.2 shows the location of open space as defined by the ordnance survey (Ref 15-37). Overall, the Local Area (as defined by the wards) has a high provision of allotments and community growing spaces but lacks general open space that is accessible to all.

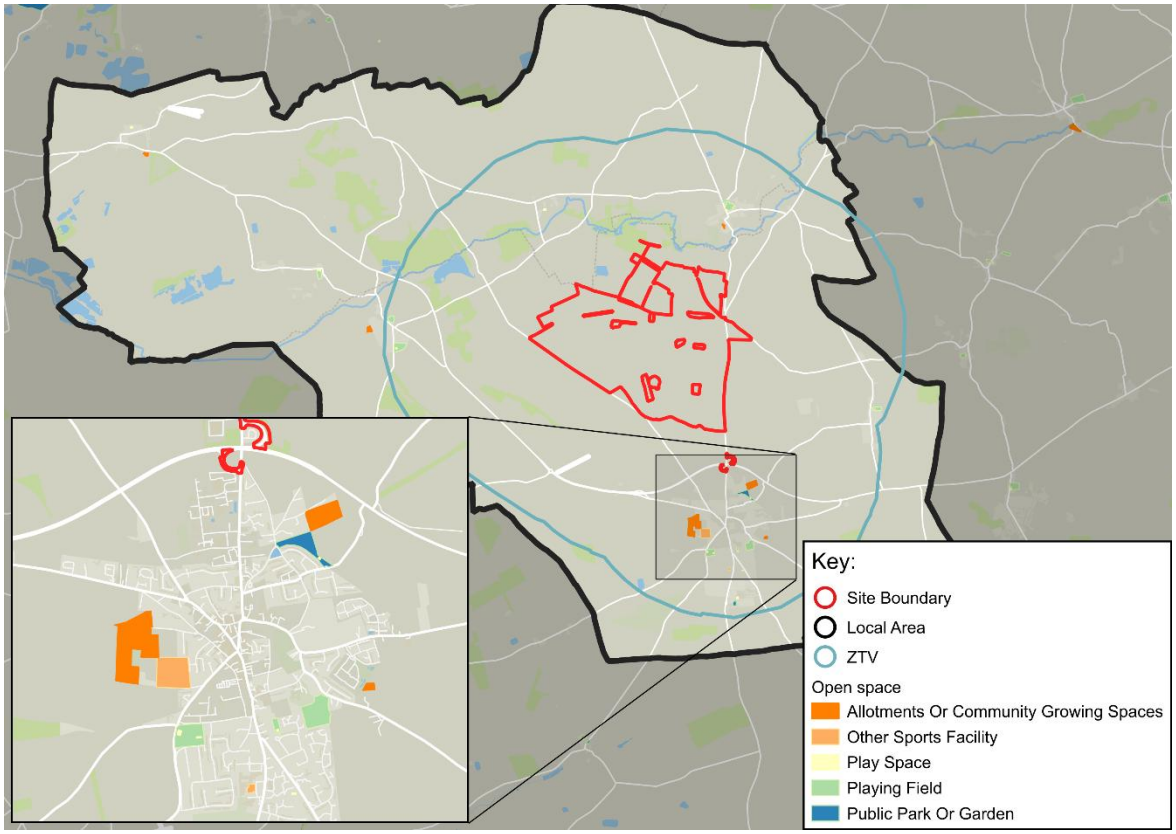
15.6.29 Table 15.9 compares different types of open space against established targets. It shows that the Local Area, Breckland, and KLWN all fall below Fields in Trust (FiT) guidance for play space provision [Ref 15-38]. The Local Area is also significantly below FiT standards for public parks and gardens, whereas Breckland and KLWN exceed the standard. However, the majority of residents within the Local Area are located in Breckland, particularly in and around Swaffham. This context is therefore more important when considering baseline conditions than the wider averages across the LCA.

Table 15.9 Open space (2023) against FiT targets

Types of open space	Standards (FIT) (Ha per 1,000 population)	Local Area (ha per 1,000 population)	Breckland (ha per 1,000 population)	KLWN (ha per 1,000 population)
Play Space	0.25	0.07	0.07	0.12
Other Sports Facility	1.6	0.3	0.4	0.2
Public Park Or Garden	0.8	0.22	1.20	4.79
Allotments Or Community Growing Spaces	0.25	0.91	0.38	0.52
Playing Field	1.2	1.2	1.3	1.3

(Source: OS, 2023. Open space; Fields in Trust, 2024. Guidance for Outdoor Sport and Play Note: Cells highlighted in red indicates provision is below benchmarks, orange indicates in line with the benchmark, and green indicated above the benchmark.)

Figure 15.2 Open Space (2023)



15.6.30 Future Breckland (2022) has identified that Breckland is a priority area for social and green infrastructure, as access is more limited compared to KLWN (Ref 15-39).

Sensitivity

General population

15.6.31 Physical activity levels in Breckland, particularly around Swaffham where the majority of residents in the ZTV are located, are broadly consistent with regional and national averages (Ref 15-40). This suggests that the general population is not at elevated health risk from inactivity. While provision of open space is below Fields in Trust benchmarks, this is offset by a good network of PRoW which provides accessible opportunities for recreation and activity. Taken together, these factors indicate that the general population has a relatively low sensitivity to changes in physical activity opportunities.

Vulnerable groups

15.6.32 Certain groups are more vulnerable to changes in access to PRoW, open space, and opportunities for physical activity. The reasons for increased sensitivity are as follows:

- **Older people** are more likely to rely on local, accessible walking routes (including PRoW) for maintaining physical activity, mobility, and social interaction. Reduced

access could therefore have a direct impact on their physical and mental health. (Ref 15-41)

- **Children and young people**, particularly those with obesity, benefit disproportionately from access to safe, local play and recreation spaces. Restrictions in provision or access can reinforce inactivity, increasing the risk of long-term health inequalities. (Ref 15-42)
- **People with a long-term illness or disability** often face existing barriers to accessing physical activity opportunities. Local open spaces and PRoW provide inclusive, low-cost options that can be critical to supporting their health and well-being. Loss of access would therefore have an outsized impact; and (Ref 15-43)
- **Single-parent families** typically have fewer resources and less flexibility to travel to alternative facilities. Accessible local opportunities for children's play and physical activity are therefore particularly important for this group. (Ref 15-44)

15.6.33 Within both Breckland and KLWN, the prevalence of older residents and people with long-term illness or disability is higher than regional and national averages. This means a larger share of the population is more dependent on these local assets to remain active. On this basis, vulnerable groups are assessed as having a medium sensitivity to changes in physical activity opportunities.

15.7 Embedded Mitigation

15.7.1 Likely environmental effects have been or will be avoided, minimised, mitigated or reduced through design measures and/or management of the Scheme, as outlined in this section. Proposed environmental enhancements are also described where relevant.

15.7.2 The following embedded mitigation measures have been incorporated into the Scheme's design.

Embedded Construction Phase Mitigation

15.7.3 The following embedded mitigation measures have been incorporated into the Scheme's design for the construction phase:

- As detailed within the **oCEMP [APP/7.6]** submitted with the DCO Application, which will form the basis of the detailed CEMP secured by a requirement of the DCO, the CEMP will include the following mitigation measures:
  - The use of visual screening, such as hoardings, would be implemented for more sensitive visual receptors in proximity to the Site, including residential and PRoW receptors that have the greatest potential to be affected by the Scheme; and
  - Construction works which create dust would be kept to a minimum within proximity to existing pedestrian routes and residential properties, and dust prevention measures, such as damping, would be undertaken to reduce the impact on users of the PRoW network.

- Internal access routes will be provided within the Site to minimise vehicles needing to use the Local Road Network (LRN) where possible. The details of this will be secured through a detailed Construction Traffic Management Plan (CTMP) which will be prepared substantially in accordance with the **outline Construction Traffic Management Plan (oCTMP) [APP/7.7]**); and
- During the construction phase, the Applicant will implement employment and skills measures designed to maximise local benefits from the Scheme. These will include the creation of apprenticeship and trainee opportunities, targeted engagement with local education providers and STEM organisations, and collaboration with council initiatives such as the Boost Programme, Careers Hub, and Breckland Skills Assembly. The Applicant will seek to source services from local contractors and sub-contractors where feasible, advertise jobs through local channels, and deliver skills workshops for residents. These measures will be coordinated with BC and other local partners, and set out in the detailed Employment, Skills and Supply Chain Strategy, which will be secured via requirement of the DCO and prepared substantially in accordance with the **outline Employment, Skills and Supply Chain Strategy (oESSCS) [APP/7.15]** submitted with the DCO Application.

Embedded Operational Phase Mitigation

15.7.4 The following embedded mitigation measures have been incorporated into the Scheme's design for the operational phase:

- The **oLEMP [APP/7.11]** details the retention of the majority of existing landscape features within and around the boundaries of the Site, namely mature hedgerows and tree cover, which contribute to the landscape character of the local context. These landscape features serve to restrict, filter and enclose visibility within the Site and study area south of Bartholomew's Hills Plantation. There is some loss of vegetation proposed as part of the Scheme to allow for the Grid Connection Infrastructure, Site and internal field access
- The **oLEMP [APP/7.11]** details the offset and buffering of the Scheme with new woodland, hedgerow and tree planting to mitigate potential views from the nearby PRoW, roads and residential dwellings both within and in close proximity to the Site
- The **oLEMP [APP/7.11]** details the recreational enhancements such as the potential for new publicly accessible amenity space within the north-western area of the Site, that is connected to the existing PRoW network. In addition to this, a number of new permissive routes are proposed, of approximately 4.7km in total, which would link to the existing PRoW network within the Study Area to provide recreational benefits. This total number can be broken down to approximately 1.2km new offsite permissive route provision and approximately 3.5km new onsite permissive route provision
- A Community Liaison Manager will be appointed as a temporary facilitator of communications between communities and the Scheme's operators during the peak replacement scenario. During long-term general operation and maintenance activities, a full-time equivalent position of the Scheme's operation and maintenance team will also be in a dedicated 'community contact' position whereby they are responsible for

monitoring community interaction to ensure community concerns are heard, responded to and suitably addressed throughout the duration of the Scheme's operational phase.

- During the operational phase, the Applicant will embed initiatives to sustain long-term skills development and community benefits. This will include offering site tours for schools and colleges, delivering educational outreach on solar energy, and supporting summer internship and research programmes. The Applicant will also explore sponsoring local students and running green energy awareness campaigns to raise understanding of the sector. These measures will be coordinated with BC and other local partners, and set out in the detailed Employment, Skills and Supply Chain Strategy, which will be secured via a requirement of the DCO and prepared substantially in accordance with the **oESSCS [APP/7.15]** submitted with the DCO Application.

Embedded Decommissioning Phase Mitigation

15.7.5 The following embedded mitigation measures have been incorporated into the Scheme design for the decommissioning phase:

- Decommissioning works which create dust will be kept to a minimum within proximity to existing pedestrian routes and residential properties, and dust prevention measures, such as damping, will be undertaken to reduce the impact on users of the PRoW network (as will be secured within the Decommissioning Strategy (DS) which will be secured via a requirement of the DCO and prepared substantially in accordance with the **outline Decommissioning Strategy (oDS) [APP/7.10]** submitted with the DCO Application).

15.8 Assessment of Likely Effects

15.8.1 This section of the human health assessment identifies and characterises potential impacts arising during the construction, operational and decommissioning phases of the Scheme.

15.8.2 Taking into account the embedded mitigation measures as detailed in section 15.7, the potential for the likely effects of the Scheme on human health receptors was assessed using the methodology as detailed in section 15.5 of this chapter. In the sections below, effects during the construction, operational and decommissioning phases of the Scheme are assessed for human health receptors scoped into the ES assessment.

15.8.3 Any additional mitigation required to reduce these effects is then set out in section 15.9 below. Thereafter, an assessment is made of the significance of any residual effects after all mitigation measures have been accounted for.

Construction Phase

Employment

15.8.4 As outlined in ES Chapter 14: Socio-economics **[APP/6.2]**, the construction phase of the Scheme would generate employment both on-site and across the wider supply chain. In total, construction activity is expected to support around 1,245 jobs, with a peak workforce of around 740 at any one time. Applying a medium displacement rate of 50% results in approximately 625 net direct jobs supported over the construction phase. Using an uplifted regional construction multiplier of 1.84 to capture supply chain and expenditure effects, the total employment impact is expected to be around 1,145 net additional jobs, comprising approximately 525 indirect and induced jobs in addition to the 625 direct jobs. Of these direct jobs, between 155 and 310 jobs per annum are expected to be taken by residents within the LCA, after allowing for 50–75% leakage.

15.8.5 There is a well-established link between employment and health outcomes: good quality work is associated with improved physical and mental health, while unemployment and financial insecurity are linked to poorer health (Ref 15-45). The Scheme could provide employment opportunities for some residents, though not all roles will be accessible given the specialist skills required and the high mobility of the construction workforce.

Conclusion

15.8.6 Employment is recognised as a wider determinant of health, particularly when it improves financial stability or reduces prolonged unemployment. The greatest health benefits are generally realised when individuals move from unemployment into employment, as this can reduce stress, improve financial security, and support mental well-being. The **oESSCS [APP/7.15]** seeks to maximise these benefits where possible. However, in this instance, the scale and duration of the employment uplift are not expected to lead to sustained improvements in overall population health. The temporary nature of the construction phase (24 months) means it is unlikely to influence long-term health outcomes. Overall, the Scheme is considered to have a low magnitude of impact on human health in relation to jobs created during the construction phase.

General population

15.8.7 On a medium sensitivity receptor, the creation of construction employment opportunities is assessed as having a direct, temporary, Minor Beneficial effect on the health of the general population (residents and workers), that is considered **not significant**.

Vulnerable groups

15.8.8 For vulnerable groups, as a high sensitivity receptor, the creation of construction employment opportunities is assessed as a direct, temporary, Moderate Beneficial effect that is considered **significant.**

Provision of education, skills and training

15.8.9 As outlined in **ES Chapter 14: Socio-economics [APP/6.2]**, the Scheme will create substantial employment opportunities across a range of different occupation types in construction; however, these will be temporary due to the duration of the construction phase only lasting 24 months. The Applicant is actively engaging and meeting with BC, the Borough Council of KLWN, and NCC to identify the most effective ways to support education and skills development in the area.

15.8.10 The **oESSCS [APP/7.15]** sets out the construction-related education, skills, training, and supply chain opportunities to be provided, including apprenticeships, local employment, partnerships with schools and colleges, and site visits. These measures will be coordinated with BC and other local partners, and set out in the ESSCS, to be secured via a requirement of the DCO.

Conclusion

15.8.11 Education and skills development are recognised wider determinants of health, with access to training linked to improved long-term employment prospects, higher earnings, and better physical and mental health outcomes [Ref 15-46]. The Scheme is expected to create opportunities for upskilling through apprenticeships, on-site training, partnerships with schools and colleges, and supply chain involvement. A 24-month apprenticeship or structured training programme can provide a strong foundation for stable, long-term employment, which in turn supports sustained improvements in health and well-being. The **oESSCS [APP/7.15]** will seek to maximise these benefits, particularly for unemployed and disadvantaged groups. On this basis, the Scheme is considered to have a medium magnitude of impact on human health in relation to education and skills during the construction phase.

General population

15.8.12 On a medium sensitivity receptor, the provision of temporary training and upskilling opportunities is assessed as having a direct, temporary, Moderate Beneficial effect on the health of the general population. This is considered **significant**.

Vulnerable groups

15.8.13 For vulnerable groups, a high sensitivity receptor, the provision of temporary training and upskilling opportunities is assessed as having a direct, temporary, Major Beneficial effect, which is considered **significant**.

Physical activity

15.8.14 **ES Appendix 6.9: Amenity and Recreation Assessment [APP/6.4]** identifies that most construction effects are likely to arise due to perceptual or actual changes during the construction phase as a result of the construction activities such as operation of plant and movement of materials.

15.8.15 No physical effects (i.e. permanent extinguishment or permanent diversion) to the amenity are proposed. Temporary closures or diversions may be required for a very limited time period during construction to establish internal access tracks within the Site boundary where they cross ProW, but will be limited in extent and duration (it is likely to take just a few days to construct an Access Track across an existing PRoW). These diversions will be managed in accordance with the measures set out in the **oCEMP [APP/7.6]**, such as providing clear signage to recreational users and banksmen to manage plant movements and crossing where appropriate. Construction will be phased over two years, meaning not all routes will be affected at once.

15.8.16 **ES Chapter 6: Landscape & Visual [APP/6.2]** identifies potential impacts during the construction phase among various different visual receptors (including motorists on local roads, users of rights of way and local residents or visitors to settlements). It is stated that effects during construction phase would be temporary and short-term and would be of medium-low magnitude, resulting in moderate adverse effects that are significant.

15.8.1 Construction noise will remain below 65dB LAeq for most receptors, with two localised exceptions near the A47–A1065 slip roads and Keepers Cottage (**ES Chapter 10: Noise and Vibration [APP/6.2]**). PRoW users may occasionally experience brief bursts of higher noise or vibration when passing close to works. These short-term effects are not significant but may be felt more acutely by older residents or those with sensory sensitivities, discouraging their use of affected routes.

15.8.2 Construction activities have the potential to generate temporary dust and vehicle emissions. However, with the mitigation set out in the **oCEMP [APP/7.6]** and **oDS [APP/7.10]**, these are not expected to result in significant air quality effects. While some temporary increases in dust may discourage use of PRoW and open spaces close to active works, this is not anticipated to completely deter physical activity.

15.8.3 During the construction phase, the magnitude of impact on PRoW, open space, and opportunities for physical activity within the Site will be greatest where routes pass closest to construction works, given that there would be an increase in noise, dust particulates and vibration and increases in the scale of adverse effects on visual amenity along these routes. It should be noted, however, that this effect would be temporary, and the construction phase would take place on a phased basis (within the presumed two-year programme) meaning it is unlikely that all routes would be affected at the same time. Additionally, many of the significant adverse effects identified in both **ES Chapter 6: Landscape & Visual [APP/6.2]** and **ES Appendix 6.9: Amenity and Recreation [APP/6.4]** are linked to visual impacts rather than access to PRoW.

15.8.4 During the construction phase, many of the PRoW around the Site are likely to be subject to visual impacts. This may discourage some individuals from using these routes, leading to a temporary reduction in physical activity levels. Reduced use of PRoW could have knock-on effects for health and well-being, given the established links between physical activity, mental health, and quality of life. Mitigation measures to minimise visual impacts and support continued use of PRoW during construction will be set out in the **oCEMP [APP/7.6]**

There is strong evidence of the link between PRoW and open spaces and health outcomes (Ref 15-47). In addition, there is a growing body of literature relating access to open space, play space and nature with positive mental health and wellbeing (Ref 15-48).

Conclusion

15.8.5 During the construction phase, temporary closures or diversions of PRoW may be required for short periods. Users may also experience noise, dust, vibration, and visual disturbance when travelling close to construction areas, which could deter use of PRoW and reduce physical activity. However, there is no permanent loss of access proposed, and diversions will be managed with mitigation measures set out in the **oCEMP [APP/7.6]**. While significant visual effects on PRoW have been identified in the ES, restrictions to access and exposure to noise or air quality impacts are more likely to deter use of PRoW than reduced visual amenity.

15.8.6 The activities generating the greatest temporary effects will be confined to the Site itself and, in particular, to PRoW that cross or run adjacent to the Site. While there will be some temporary disruption to these routes, PRoW represent only a relatively small proportion of the overall opportunities for physical activity in the Local Area. Other key facilities and assets that enable physical activity, including open spaces, parks, sports pitches, gyms, tennis courts and playing fields, will remain unaffected by the Proposed Development.

15.8.7 Overall, while temporary deterrents to PRoW use may arise, the overall capacity for physical activity in the Local Area will remain broadly unchanged. The health impacts of construction are therefore expected to be limited in scale and duration, and the Scheme is considered to have a low magnitude of impact on human health in relation to physical activity.

General population

15.8.8 On a low sensitivity, the impact on physical activity is assessed as having a direct, temporary, Minor Adverse effect on the health of the general population (residents and workers). This is considered **not significant**.

Vulnerable groups

15.8.9 For vulnerable groups, on a medium sensitivity, the impact on physical activity is assessed as having a direct, temporary, Minor Adverse effect, which is considered **not significant**.

Operational Phase

Provision of education, skills and training

15.8.10 The impact from the Scheme on health during the operational phase is likely to have a positive impact on mental health for residents. This is based on evidence showing that access to education and training opportunities can improve mental wellbeing by offering a sense of security, purpose, and personal development. (Ref 15-49) Awareness of future

employment opportunities in the area may motivate some residents to develop their skills in preparation, contributing to improved confidence and optimism about the future.

15.8.11 As stated in **ES Chapter 14: Socio-economics [APP/6.2]**, the Applicant is actively engaging and meeting with BC, the Borough Council of KLWN, and NCC to identify the most effective ways to support education and skills development in the area. The **oESSCS [APP/7.15]** sets out the operational-related education, skills, training, and supply chain opportunities to be provided, including apprenticeships, local employment, partnerships with schools and colleges, and site visits.

15.8.12 In addition, during the operational phase of the Scheme, there will also be periods of maintenance requiring temporary workers. In particular, the full replacement of on-site Solar PV panels and BESS is anticipated over a 12-month period. This activity is expected to generate ongoing employment and supply chain opportunities, ensuring that benefits extend beyond the initial construction stage. During this replacement period, an estimated gross 125 FTE jobs per annum would be supported, with the on-site workforce expected to peak at around 360 workers at any one time. These activities will also create continued opportunities for local skills development and SME participation in the supply chain, particularly in electrical works, logistics, and site services.

15.8.13 The overall scale of operational employment is expected to be limited compared to the construction and decommissioning phases, meaning that the number of residents directly benefitting from these opportunities is also likely to be lower. As such, while the potential for positive mental health impacts exists, it is expected to be limited in scale.

Conclusion

15.8.14 The Scheme's operational phase is expected to generate modest but positive health impacts, primarily through improved mental wellbeing linked to education, training, and employment opportunities. While engagement with local authorities and the **oESSCS [APP/7.15]** will help deliver local benefits, overall employment levels will be limited compared to construction, meaning the scale of direct impacts on residents will remain relatively small. As a result, the Scheme is considered to have a low magnitude of impact in relation to education, skills and training for local residents and businesses.

General population

15.8.15 On a medium sensitivity, the provision of education, skills, and training is assessed as having a direct, temporary, Minor Beneficial on the health of the general population. This is considered **not significant**.

Vulnerable groups

15.8.16 For vulnerable groups, on a high sensitivity, the provision of education, skills, and training is assessed as having a direct, temporary, Moderate Beneficial effect, which is considered **significant**.

Physical activity

15.8.17 **ES Appendix 6.9: Amenity and Recreation [APP/6.4]** outlines that a key benefit of the Scheme is the creation of 4.7km of new permissive paths, improving access to previously inaccessible land and integrating with the wider PRoW network to provide off-road alternatives for pedestrians and cyclists. These paths include 1.2km of off-site permissive routes, enhancing links beyond the Site, and 3.5km of on-site permissive routes (a 36% uplift of existing pathways in the Site area), improving connectivity within the Site itself. Along these new routes, the Scheme will introduce nature areas, interpretation boards, and wayfinding signage to encourage engagement with and understanding of the natural environment.

15.8.18 **ES Appendix 6.9: Amenity and Recreation [APP/6.4]** concludes that in relation to PRoW, existing and new planting would temper impacts and change the character and amenity of some routes from open, long-distance views to more visually enclosed, such as views along PRoWs. However, overall access to the PRoWs would not be impacted by the Scheme and as stated, some routes would be enhanced.

15.8.19 The provision of additional and improved PRoW is expected to encourage greater levels of walking and physical activity. Increased walking is strongly associated with improved physical health outcomes, including reduced risk of cardiovascular disease, lower blood pressure, improved weight management, and enhanced musculoskeletal health. Walking is also linked to positive mental health benefits, such as reduced stress and anxiety, improved mood, and increased overall wellbeing.

Conclusion

15.8.20 While the Scheme is expected to enhance the overall PRoW network, some existing routes may experience changes in character due to the development. However, access to existing PRoW would not be affected, ensuring that residents can continue to use the routes for walking and recreation. On balance, the Scheme has the potential to increase participation in physical activity, which could lead to improved physical and mental health outcomes for local residents. As a result, the magnitude of impact to physical activity is expected to be medium.

General population

15.8.21 On a low sensitivity receptor, the impact on physical activity is assessed as having a direct, temporary, Minor Beneficial effect on the health of the general population (residents and workers). This is considered **not significant**.

Vulnerable groups

15.8.22 For vulnerable groups, on a medium sensitivity, the impact on physical activity is assessed as having a direct, temporary, Moderate Beneficial effect, which is considered **significant**.

Decommissioning Phase

Employment

15.8.23 As outlined in ES Chapter 14: Socio-economics **[APP/6.2]**, the Scheme is expected to generate only a small uplift in construction employment during the decommissioning phase, with between 1.0%–1.6% of existing LCA residents in construction estimated to be supported through gross direct jobs (370-590 construction jobs).

Conclusion

15.8.24 Employment is recognised as a wider determinant of health, particularly when it improves financial stability or reduces prolonged unemployment. However, in this instance, the scale and duration of the employment uplift are not expected to lead to any sustained improvements in population health. Overall, the Scheme is considered to have a low magnitude of impact on human health in relation to jobs created during the Decommissioning phase (same as the construction phase).

General population

15.8.25 On a medium sensitivity receptor, the creation of employment opportunities is assessed as having a direct, temporary, Minor Beneficial effect on the health of the general population (residents and workers), that is considered **not significant**.

Vulnerable groups

15.8.26 For vulnerable groups, of a high sensitivity, the creation of employment opportunities is assessed as having a direct, temporary, Moderate Beneficial effect that is considered **significant**.

Provision of education, skills and training

15.8.27 It is expected that the impact from the Scheme during the decommissioning phase is likely to have a positive impact on mental health for residents as there would be a greater opportunity for them to upskill. In addition, with greater employment opportunities in the area, it would encourage younger residents to stay in the area rather than move away, which is another concern identified by BC and the Borough Council of KLWN. As outlined in **ES Chapter 14: Socio-economics [APP/6.2]**, the decommissioning workforce is expected to be approximately 50%–80% of the size of the construction workforce, therefore, the overall magnitude of impact is likely to be lower than during the construction phase. Furthermore, given the 60-year timescales on this effect, there is far less certainty regarding the extent to which initiatives to support education, skills and training could be achieved.

Conclusion

15.8.28 Education and skills development are recognised wider determinants of health, with access to training linked to improved long-term employment prospects, higher earnings,

and better physical and mental health outcomes. However, as opportunities for training and upskilling are far less certain at the start of the decommissioning phase, the potential effect is expected to be limited. Overall, the Scheme is considered to have a low impact on human health in relation to education and skills during the decommissioning phase.

General population

15.8.29 On a medium sensitivity receptor, the provision of education, skills, and training is assessed as having a direct, temporary, Minor Beneficial effect on the health of the general population. This is considered **not significant**.

Vulnerable groups

15.8.30 For vulnerable groups, of a high sensitivity, the provision of education, skills, and training is assessed as having a direct, temporary, Moderate Beneficial effect, which is considered **significant**.

Physical activity

15.8.31 For this assessment, it has been conservatively assumed that the decommissioning phase mirrors the construction phase in terms of magnitude of impact for physical activity. This represents a worst-case scenario, as it assumes there is potential for temporary closures or diversions may be required for a very limited time period during the decommissioning phase.

Conclusion

15.8.32 As such the Scheme is considered to have a low magnitude of impact on human health in relation to physical activity.

General population

15.8.33 On a low sensitivity, the impact on physical activity is assessed as having a direct, temporary, Minor Adverse effect on the health of the general population (residents and workers). This is considered **not significant**.

Vulnerable groups

15.8.34 For vulnerable groups, on a medium sensitivity, the impact on physical activity is assessed as having a direct, temporary, Minor Adverse effect, which is considered **not significant**.

15.9 Additional Mitigation Measures

15.9.1 As no significant adverse effects have been identified above for receptors during any phase of the Scheme once embedded mitigation is taken into account, no additional mitigation measures for the Scheme are required.

15.10 Residual Effects

15.10.1 As there are no significant adverse effects identified the effects remain unchanged as those reported above in the assessment of likely effects.

15.11 Cumulative Effects Assessment

15.11.1 This section presents an assessment of cumulative effects between the Scheme and other existing and/or approved developments.

15.11.2 As set out in **ES Chapter 2: EIA Process and Methodology [APP/6.1]**, a Cumulative Effects Assessment (CEA) has been undertaken as part of the EIA in accordance with PINS Advice on Cumulative Effects Assessment (September 2024) and has considered two types of cumulative effects.

- In combination effects: the combined effect generated by individual effects on a particular receptor (presented within ES Chapter 17: In-Combination Effects **[APP/6.2]**; and
- Cumulative effects: effects generated by the Scheme and other planned or approved developments on the same receptor (presented in **ES Chapters 6 to 16 [APP/6.2]**).

In-Combination Effects

15.11.3 In-combination effects occur when receptors are subject to effects under more than one environmental topic. As such, the effects presented in **ES Chapters 6 to 16 [APP/6.2]** (regardless of whether they are classed as significant or not significant) have been reviewed to identify receptors subject to one or more types of effect to ensure that the interrelationship between each of the aspects of the environment likely to be affected by the Scheme has been properly evaluated and considered.

15.11.4 The assessment of in-combination effects is presented in **ES Chapter 17: In-Combination Effects [APP/6.2]**.

Cumulative Effects

15.11.5 Cumulative effects may arise as a result of effects associated with the Scheme combining with effects associated with other developments. The list of developments has been narrowed down to focus on those developments which are most likely to give rise to cumulative effects. A long-list was generated which was then refined following consultation with relevant local planning authorities, this short-list forms the basis of this assessment.

15.11.6 For this assessment, Tier 1 and Tier 2 schemes have been considered in the cumulative effects assessment. Tier 1 schemes comprise existing, approved, or submitted developments that are reasonably certain to proceed, while Tier 2 schemes are projects that are further advanced in the planning process, such as those on the Planning Inspectorate's programme. Tier 3 schemes, which are identified in development plans or

other programmes but lack sufficient detail to allow assessment, have been identified but not assessed (Ref 15-50). Where this assessment relies on other technical chapters, the committed developments are considered within the study areas of those chapters, ensuring consistency with the assessment of the Scheme's direct effects on human health.

15.11.7 A blended approach has been undertaken for the cumulative effects assessment, meaning that different methods have been applied depending on the type of effect being assessed. For employment effects, the assessment is considered inherently cumulative for all approved committed developments since impacts are assessed against a future baseline that includes employment projections. These projections inherently reflect the impacts of approved committed developments within the relevant Study Area.

15.11.8 For other effects, where projections are not available, data are presented on the expected changes as a result of committed developments. The effect of cumulative schemes is therefore considered through a combination of projections and plans for future developments in the future baseline. Effects, where there is a forecast, are considered against this future baseline so a separate assessment of the cumulative effects would constitute double counting.

15.11.9 A short list of cumulative developments/allocations can be found in **ES Appendix 2.1: Cumulative Schemes [APP/6.4]**.

Relevant Developments

15.11.10 Those developments which have the potential to result in cumulative effects on human health within the associated Study Area are set out in Table 15.10. The remaining schemes are not considered to have cumulative effects within the human health study areas.

Table 15.10 Short List Developments/Allocations relevant to Human Health

Short List No	Planning Ref	Description	Distance from the Scheme
1	EN0110010	High Grove Solar – RWE Renewables UK Solar and Storage Ltd The Scheme comprises the installation of solar PV generating panels, on-site energy storage facilities, grid connection infrastructure and ancillary works. The project would have a generating capacity of approximately 720MW.	Adjacent to the Site boundary
3	EN0110014	East Pye Solar Farm – Island Green Power The project comprises the construction, operation,	Approx 40km

Short List No	Planning Ref	Description	Distance from the Scheme
		maintenance and decommissioning of a solar PV electricity generating station and associated development, including a BESS, ancillary infrastructure, customer substations and Grid Connection Infrastructure (including a new National Grid Substation). The project will have a generating capacity of 500MW.	
3	3SO/2024/0002/SCO	Indigo Corporation Limited – Scoping Opinion Request for proposed development of a 400,000 bird broiler farm.	1km
4	3SR/2021/0001/SCO	Private Applicant – Scoping Opinion Request for 8 Poultry Houses with associated admin blocks, feed bins and ancillary development.	23km
5	3SO/2020/0002/SCO	Amber Real Estate Investments – Scoping Opinion Request for upgrade of existing poultry unit.	24km
6	3SO/2018/0003/SCO	Dignity Funerals Ltd – Scoping Opinion Request for proposed crematorium facility.	23km
7	3SO/2017/0003/SCO	Broadland Poultry – Scoping Opinion Request to demolish 4 poultry sheds & erect 3 replacement sheds, 1 agricultural barn & new vehicular site access.	22km
8	PF/22/2300	Private Applicant – A balanced cut and fill irrigation reservoir (up to 120,000m³), water pumping station, landscaping works and associated buried pipeline(s).	14km
9	22/01648/FM	Wild Ken Hill – Change of use of existing buildings and new buildings to provide visitor centre, café, event and retail space, indoor play building, bike hire service,	23km

Short List No	Planning Ref	Description	Distance from the Scheme
		play facilities, bike tracks, glamping units, car parking, landscaping and off-road path.	
10	22/00357/FM	Anglian Water Services Ltd – Hybrid Planning Application for Grantham to Bexwell Pipeline Scheme (95km pipeline and 4km spur, with outline consent for above-ground infrastructure at Elton and Welby Heath).	19km
11	21/01580/FM	Anglian Water Services Ltd – Hybrid Planning Application for Bexwell to Bury St Edmunds Pipeline Scheme (70km pipeline with above-ground infrastructure at Gazeley, Isleham, Woodditton; outline consent at Bexwell, Kentford, Ladys Green, Rede).	19km
12	21/02302/FM	C/O Landpro Services – Boultbee Brooks (Renewables Hall Farm) Ltd – Proposed development of a ground mounted solar farm and associated infrastructure, access and grid connection cable.	14km
13	21/00262/FM	Norfolk Farm Leisure Limited – Proposed eco-leisure and tourism facility (holiday lodges, clubhouse, spa, boat house, staff accommodation, EV charging, recreational facilities, renewable energy, landscaping, biodiversity enhancements, and highway improvements).	7km
14	22/01650/FM	Wild Ken Hill – Change of use of land for 20 touring caravan pitches, camping, visitor utility building, reception/retail, storage, parking/drop off, landscaping and off-road path.	25km
15	22/01706/FM	J & J Wildflower Properties – Retrospective application for 10 touring caravans, 10 holiday lodges, service	15km

Short List No	Planning Ref	Description	Distance from the Scheme
		block, café, access road and caravan storage.	
16	22/02114/F	Wicken Farming Company Ltd – Construction of a clay lined irrigation reservoir within an arable field, using excavated soils on site to form embankments (no soils removed).	6km
17	24/01689/FM	British Sugar – Creation of a new water storage reservoir in connection with sugar beet processing and animal feed drying technology.	19km
18	23/01826/FM	Newcome-Baker Farms Limited – Erection of two poultry sheds and associated development (feed silos, weigh rooms, extension to dead bird shed, water tank, access road, repositioned landscaped bund).	23km
19	23/02066/FM	Extension of the site to create 28 new all-weather touring caravan pitches, 4 premium pitches, 2 accessible pitches, 12 camping pitches, 15 glamping tents, new reception building, two toilet blocks, manager's accommodation, utilities pod, and internal road improvements.	17km
20	3SO/2024/0002/SCO	Indigo Corporation Limited – Scoping Opinion Request for proposed development of a 400,000 bird broiler farm.	1km
21	EN020027	Norwich to Tilbury - National Grid Electricity Transmission (NGET) - Onshore elements Proposal to reinforce the 400kV high voltage power network in East Anglia to include a new 400kV connection substation in the Tendring district. This project is at the examination stage.	37km

Short List No	Planning Ref	Description	Distance from the Scheme
22	EN010109	Equinor - Sheringham and Dudgeon Extension Projects Sheringham Extension Project has a maximum installed capacity of 317MW, while Dudgeon Extension Project has a maximum installed capacity of 402MW. Joint export cable system, offshore and onshore, connecting to the national grid transmission network at Norwich Main substation. This project is at the post-decision stage.	28km
23	PL/2025/1516/SCR	Screening Opinion for a Solar PV development Applicant: (Radiance Energy (C/O Agent))	8km
24	PL/2025/1791/SCO / PL/2025/0980/SCR	Request for a formal Scoping Opinion from the LPA under Part 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 – 4no. replacement poultry breeder sheds and ancillary development	10km
25	22/00704/FM	Construction and operation of a solar farm comprising an array of ground-mounted solar photovoltaic ("PV") panels and containerised batteries and associated infrastructure	22km
26	18/02289/OM	Outline Application: Up to 500 homes with a neighbourhood centre, associated landscaping, parking and supporting infrastructure	14km
27	23/02119/CM / 23/02120/CM	Extension to silica sand extraction operations with progressive restoration without compliance with planning conditions 2 (approved plans), 7 (restoration plan) and 8 (scheme of working) of	10km

Short List No	Planning Ref	Description	Distance from the Scheme
		decision APP/X2600/W/21/3289252 Proposed extension of Grandcourt Quarry for the extraction of industrial sand with progressive restoration to nature conservation.	
28	3PL/2022/1215/F	Low Carbon Solar Park 15 Ltd - Construction and operation of a solar photovoltaic farm with battery storage and associated infrastructure, including inverters, substations, security cameras, fencing, access tracks and landscaping	1km
29	EN0110048	Longmarsh Green Energy – solar energy, battery energy storage and co-located data centre campus	6.2km

15.11.11 For the purposes of the cumulative effects assessment, only the construction and operational phases have been considered. Decommissioning is anticipated to occur in approximately 60 years' time, and there is no certainty around what other schemes may be coming forward at that stage. As such, it is not possible to robustly assess the cumulative nature or scale of impacts so far into the future. As such, decommissioning has been excluded from the cumulative assessment.

Employment (Construction Phase)

15.11.12 Many of the committed developments are considered inherently cumulative because the future baseline already accounts for the construction workforce requirements within the relevant study area (LCA). This includes the impacts of approved schemes.

15.11.13 However, as outlined in **ES Chapter 14: Socio-economics [APP/6.2]**, there are smaller local schemes within 25km of the Site where construction timelines are not yet confirmed (e.g. a proposed 400,000 bird broiler farm, the upgrade of an existing poultry unit, and a crematorium facility). If these schemes were to overlap with the Scheme, the health impacts would primarily relate to potential changes in employment opportunities. Any effects are expected to be limited given the small scale of these projects and the different skills required, meaning they are unlikely to materially influence the type of workforce engaged by the Scheme.

15.11.14 With specific regard to solar farm developments identified within the short list, the Low Carbon Solar Park 15 Ltd (Short List No. 28) is expected to be operational from 2027/28

and would not temporally overlap with the Scheme's construction phase. It is therefore not considered further in this assessment.

15.11.15 In addition, there are two further solar farms (Short List Nos. 23 and 25) within 25km of the Site for which construction timelines are currently unknown and limited information is available. These two schemes may require some specialist workers; however, their scale is considerably smaller than that of the Scheme and other major developments, and they are therefore unlikely to have an effect on construction workforce in the Study Area.

15.11.16 Larger-scale projects such as High Grove Solar, East Pye Solar Farm, Norwich to Tilbury, Sheringham and Dudgeon Extension Projects, and the Longmarsh Green Energy project have been considered separately. Their projected construction workforces (High Grove peaking at 350, East Pye Solar Farm peaking at 695, Norwich to Tilbury peaking at 885 in the LCA, and Sheringham and Dudgeon Extension Projects peaking at 60 to 450 with higher employment where ports are located within East Anglia) indicate a significant construction workforce requirement not captured in baseline projections. The Longmarsh Green Energy project could support thousands of construction jobs, but no peak FTE estimate or LCA share is available. It has therefore been considered qualitatively, with no additional employment included in the quantified assessment, providing a conservative assessment of beneficial employment effects. For health, the key consideration is the duration of employment opportunities across cumulative schemes. The Norwich to Tilbury scheme, the Sheringham and Dudgeon Extension Projects, and the Longmarsh Green Energy project are likely to remain under construction when the Scheme is anticipated to begin construction in 2031 and take around two years to complete. Taken together, this sequencing could provide a longer period of sustained employment in the area, which is generally beneficial for health and well-being by supporting continuity of work and reducing risks associated with unemployment or insecure employment.

Conclusion

15.11.17 Overall, the cumulative health impacts from employment during construction are expected to be limited. The Norwich to Tilbury scheme, the Sheringham and Dudgeon Extension Projects, and the Longmarsh Green Energy project are likely to remain under construction when the Scheme is anticipated to begin construction in 2031 and take around two years to complete. This sequencing could extend the overall period of construction employment in the LCA, which may provide some health and well-being benefits through greater stability of work. However, as the sequencing of works is not yet confirmed, a reasonable worst case has been applied. Therefore, it is assumed that construction programmes are not aligned, and therefore any additional health and well-being benefits are not considered to be material. However, these effects are not expected to materially alter population-level health outcomes in the LCA. Taking these factors into account, the cumulative impact on human health is considered to be low in magnitude.

General population

15.11.18 On a medium sensitivity receptor, the creation of construction employment opportunities is assessed as having a direct, temporary, Minor Beneficial effect on the health of the

general population (residents and workers) that is considered **not significant**. This effect remains as assessed for the Scheme in isolation.

Vulnerable groups

15.11.19 For vulnerable groups, on a high sensitivity receptor, the impact is assessed as having a direct, temporary, Moderate Beneficial effect that is considered **significant**. This effect remains as assessed for the Scheme in isolation.

Provision of education, skills, training and supply chain (construction, and operational Phase)

15.11.20 As outlined in **ES Chapter 14: Socio-economics [APP/6.2]**, similar to construction and decommissioning jobs, many of the committed developments are considered inherently cumulative in terms of employment and skills provision. This is because the future baseline accounts for the employment and skills requirements within the LCA, reflecting the impacts of approved schemes.

15.11.21 High Grove Solar, East Pye Solar, and the Longmarsh Green Energy project are the only developments in the Study Area that could have a material impact on employment and skills provision, although the scale of its employment and skills provision is not yet known. All are expected to deliver an oESSCS alongside their DCO applications, similar to the approach taken for this Scheme. The Applicant, a subsidiary of IGP, is open to work with other projects in the area to ensure that employment, skills, and supply chain initiatives are aligned and coordinated where possible. This includes collaboration with East Pye Solar Farm, which is also being brought forward by a separate IGP subsidiary. The Applicant will also seek to explore opportunities for coordination with High Grove Solar Farm and the Longmarsh Green Energy project where appropriate.

Construction Phase

15.11.22 Based on the assumption that High Grove Solar, East Pye Solar, and the Longmarsh Green Energy project will be delivering similar employment and skills initiatives during the construction phase, the cumulative impact is considered to be high in magnitude.

General population

15.11.23 On a medium sensitivity receptor, the provision of education, skills, and training is assessed as having a direct, temporary, Major Beneficial effect on the health of the general population. This is considered **significant**. This differs from the main assessment, where the effect is Moderate Beneficial (Significant).

Vulnerable groups

15.11.24 For vulnerable groups, on a high sensitivity receptor, the provision of education, skills, and training is assessed as having a direct, temporary, Major Beneficial effect, which is considered **significant**. This effect remains as assessed for the Scheme in isolation.

Operational Phase

15.11.25 Based on the assumption that High Grove Solar and East Pye Solar Farm will be delivering similar employment and skills initiatives during the operational phase, the cumulative impact is considered to be low in magnitude.

General population

15.11.26 On a medium sensitivity receptor, the provision of education, skills, and training is assessed as having a direct, temporary, Minor Beneficial effect on the health of the general population. This is considered **not significant**. This effect remains as assessed for the Scheme in isolation.

Vulnerable groups

15.11.27 For vulnerable groups, on a high sensitivity receptor, the provision of education, skills, and training is assessed as having a direct, temporary, Moderate Beneficial effect, which is considered **significant**. This effect remains as assessed for the Scheme in isolation.

Physical activity (Construction, and Operational)

15.11.28 **ES Appendix 6.9: Amenity and Recreation [APP/6.4]** identifies that the only recreational resource within the Study Area (ZTV) that could experience significant adverse effects is PRoW Sporle with Palgrave, located east of the Order limits. The Scheme would be partially visible in filtered views during the construction and operational phase at the western end of the PRoW, alongside the High Grove Solar to the east of the A1065. As the construction periods for the two schemes are expected to take place at different times, users of the PRoW are likely to be affected over a longer overall duration, with periods of visual intrusion, noise, and dust occurring sequentially rather than simultaneously.

15.11.29 **ES Appendix 6.9: Amenity and Recreation [APP/6.4]** concluded that during the construction phase, the short-term combined effect would be of medium-low magnitude and of moderate significance. This effect would be adverse and significant. During the operational phase, the combined effect would lessen, with adverse effects mainly linked to High Grove Solar. The farm would partially screen views of the Scheme with new solar PV panels positioned to the north and south of the PRoW. The combined effect would be of low magnitude and slight significance. This effect would be adverse but not of a scale to be considered significant.

Construction Phase

15.11.30 Reduced access to recreational routes and increased noise and dust during construction could temporarily limit opportunities for physical activity and lessen the associated mental health benefits of walking. However, these effects would be short-term, and limited to the construction phase, with alternative routes remaining available in the surrounding area. On this basis, the cumulative impact during construction is considered to be low in magnitude.

General population

15.11.31 On a low sensitivity, the impact on physical activity is assessed as having a direct, temporary, Minor Adverse effect on the health of the general population (residents and workers). This is considered **not significant**. This effect remains as assessed for the Scheme in isolation.

Vulnerable groups

15.11.32 For vulnerable groups, on a medium sensitivity, the impact on physical activity is assessed as having a direct, temporary, Minor Adverse effect, which is considered **not significant**. This effect remains as assessed for the Scheme in isolation.

Operational Phase

15.11.33 However, during the operational phase, the enhanced PRoW network and improved long-term access to walking routes are likely to have positive health impacts, supporting increased physical activity and associated mental health benefits. Therefore, the cumulative impact during the operational phase is considered to be medium in magnitude (this magnitude remains the same as assessed for the Scheme in isolation).

General population

15.11.34 On a low sensitivity receptor, the impact on physical activity is assessed as having a direct, temporary, Minor Beneficial effect on the health of the general population (residents and workers). This is considered **not significant**. This effect remains as assessed for the Scheme in isolation.

Vulnerable groups

15.11.35 For vulnerable groups, on a medium sensitivity receptor, the impact on physical activity is assessed as having a direct, temporary, Moderate Beneficial effect, which is considered **significant**. This effect remains as assessed for the Scheme in isolation.

15.12 Conclusion

15.12.1 This chapter has set out and assessed the likely effects of the Scheme in relation Human Health. Likely effects have been assessed for the construction, operational and decommissioning phases of the Scheme. Following the implementation of embedded mitigation as detailed in section 15.7, residual effects have been identified in relation to human health during the construction, operational and decommissioning phases.

15.12.2 Table 15.11 sets out a summary of the residual Human Health environmental effects.

Table 15.11 Summary of Residual Effects for Human Health

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
Construction Phase										
Construction jobs	*Medium*	*High*	The Scheme could provide some employment opportunities for some residents, though not all roles will be accessible given the specialist skills required and the high	Low	N/A	Direct, temporary, beneficial	N/A	Minor (**Not significant**)	Moderate (**Significant**)	N/A

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			mobility of the construction workforce. In addition, the scale and duration of the employment uplift are not expected to lead to any sustained improvements in population health.							
Provision of education, skills, training	*Medium*	*High*	The Scheme is expected to create opportunitie	Medium	The Applicant will implement employmen	Direct, tempora ry,	N/A	Moderate (**Significant**)	Major (**Significant**)	The implementation and outcomes of employment

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
and supply chain			s for upskilling through apprenticeships, on-site training, partnerships with schools and colleges, and supply chain involvement. However, as these opportunities will be temporary and tied to the 24-month construction phase, the scale of long-term benefits is		t, skills, and supply chain measures to maximise local benefits as outlined in the oESSCS **[APP/7.15]**.	beneficial				and skills initiatives will be monitored and reported in accordance with the approach set out in the oESSCS **[APP/7.15]**.

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			likely to be limited.							
Physical activity	*Low*	*Medium*	During the construction phase, temporary closures or diversions of PRoW may be required for short periods, and users may experience noise, dust, vibration and visual disturbance when travelling close to construction areas.	Low	Mitigation measures set out in the Outline CEMP **[APP/7.6]**, which will inform the detailed CEMP secured through the DCO, include: Use of visual screening (e.g. hoardings) to limit disruption for nearby residential	Direct, temporary, adverse	N/A	Minor (**Not significant**)	Minor (**Not significant**)	N/A

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			However, no permanent loss of access is proposed, and diversions will be managed with mitigation measures in the oCEMP.		receptors and users of PRoW, and Minimising dust-generating activities near pedestrian routes and residential areas, with dust suppression measures such as damping to reduce impacts on PRoW users.					

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
Operational Phase										
Provision of education, skills and training	*Medium*	*High*	The Scheme's operational phase is expected to generate modest but positive health impacts, primarily through improved mental wellbeing linked to education, training, and employment opportunities. While engagemen	Low	The Applicant will implement employment, skills, and supply chain measures to maximise local benefits as outlined in the oESSCS **[APP/7.15]**.	Direct, long-term, beneficial	N/A	Minor (**Not significant**)	Moderate (**Significant**)	The implementation and outcomes of employment and skills initiatives will be monitored and reported in accordance with the approach set out in the oESSCS **[APP/7.15]**.

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			t with councils and the Outline Skills, Supply Chain, and Employment Plan will help deliver local benefits, overall employment levels will be limited compared to construction, meaning the scale of direct impacts on residents will remain							

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			relatively small.							
Physical activity	*Low*	*Medium*	While the Scheme is expected to enhance the overall PRoW network, some existing routes may experience changes in character due to the development. However, access to existing PRoW would not be affected, ensuring	Medium	New hedgerow and tree planting will be introduced to offset and buffer the Scheme, mitigating views from nearby residential dwellings, in accordance with the oOEMP [APP/7.8]. Interpretation boards,	Direct, long-term, beneficial	N/A	Minor (**Not Significant**)	Moderate (**Significant**)	N/A

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			that residents can continue to use the routes for walking and recreation. On balance, the Scheme has the potential to increase participation in physical activity, which could lead to improved physical and mental health outcomes		new amenity space, and approximately 4.7 km of new permissive routes (1.2 km off-site and 3.5 km on-site) will be provided to enhance connectivity and recreational access, as secured in the oOEMP [APP/7.8]. Internal access routes will be provided within the Site to					

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			for local residents.		reduce reliance on the Local Road Network, secured through the detailed design of the Scheme in the oOEMP [APP/7.8].					
Decommissioning Phase										
Decommissioning jobs	*Medium*	*High*	Employment is recognised as a wider determinant of health, particularly when it improves financial	Low	N/A	Direct, temporary, beneficial	N/A	Minor (**Not significant**)	Moderate (**Significant**)	N/A

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			stability or reduces prolonged unemployment. However, in this instance, the scale and duration of the employment uplift are not expected to lead to any sustained improvements in population health.							

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
Provision of education, skills, training and supply chain	*Medium*	*High*	Education and skills development are recognised wider determinants of health, with access to training linked to improved long-term employment prospects, higher earnings, and better physical and mental health outcomes. However, as opportunities for	Low	The Applicant will implement employment, skills, and supply chain measures to maximise local benefits as outlined in the oESSCS **[APP/7.15]**.	Direct, temporary, beneficial	N/A	Minor (**Not significant**)	Minor (**Not significant**)	The implementation and outcomes of employment and skills initiatives will be monitored and reported in accordance with the approach set out in the oESSCS **[APP/7.15]**.

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			training and upskilling are far less certain at the start of the decommissioning phase, the potential effect is expected to be limited.							
Physical activity	*Low*	*Medium*	During the decommissioning phase, temporary closures or diversions of PRoW may be required for short periods,	Low	Mitigation measures set out in the Outline Decommissioning Strategy **[APP/7.10]**, which will inform the detailed Decommiss	Direct, temporary, adverse	N/A	Minor (**Not significant**)	Minor (**Not significant**)	N/A

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			and users may experience noise, dust, vibration and visual disturbance when travelling close to construction areas. However, no permanent loss of access is proposed, and diversions will be managed with mitigation measures		ioning Strategy secured through the DCO, include the use of visual screening (e.g. hoardings) to limit disruption for nearby residential receptors and users of PRoW, and the minimisation of dust-generating activities near pedestrian routes and residential					

Receptor	Sensitivity (General population)	Sensitivity (Vulnerable groups)	Description of Impact	Magnitude of Impact	Embedded Mitigation	Scale and Nature of Effect	Additional Mitigation	Residual effect (with additional mitigation - General population)	Residual effect (with additional mitigation - Vulnerable groups)	Monitoring requirements
			in the oDS **[APP/7.10]**.		areas through dust suppression measures such as damping to reduce impacts on PRoW users.					

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