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# Steeple Renewables Project

**Health Impact Assessment** 

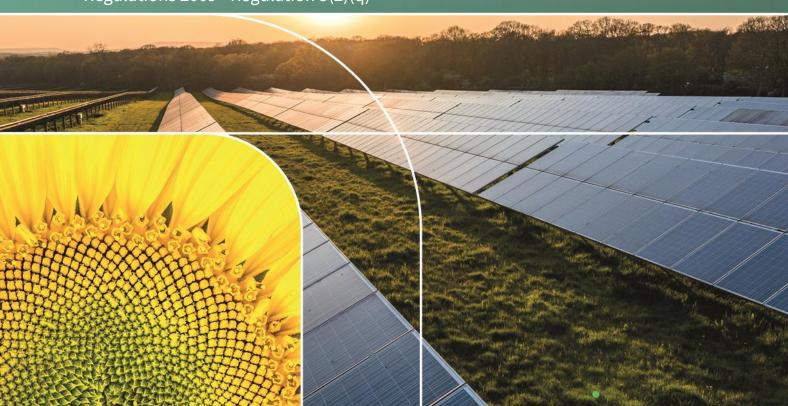
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# **Health Impact Assessment**

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# Health Impact Assessment.

Steeple Renewables Project.

On behalf of Steeple Solar Farm Ltd.

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### 1. INTRODUCTION

### **Proposed Development Description**

1.1. Steeple Solar Farm Limited (the "Applicant") has commissioned the preparation of a Health Impact Assessment (HIA) in relation to an application for a Development Consent Order ("DCO") for the construction, operation, and decommissioning of a ground mounted solar photovoltaic ("PV") electricity generation station with a capacity of over 50MW and associated development comprising of energy storage and grid connection infrastructure (hereafter referred to as "the Proposed Development"). The Proposed Development is located approximately 5km to the south of Gainsborough and the location (hereafter referred to as 'the Site') extends to 888.3 ha and primarily comprises multiple agricultural fields. The Site is defined by the 'Order limits' (the land shown in Appendix I – Site Location Plan [EN010163/APP/6.4.1].

### **Report Structure**

- 1.2. The remainder of the report is structured as follows:
  - Section 2 Overview of Site and Proposed Development provides a summary of the site location and characteristics, as well as summary of the proposals relevant to this assessment.
  - Section 3 Context for Health Impact Assessment provides context to the provision
    of this study including a definition of a HIA, literature review of relevant research
    documentation, and policy review considering national, regional, and local planning
    policy related to health and wellbeing.
  - Section 4 Methodology sets out the process undertaken in respect of the HIA
    including baseline and identification of impacts.
  - **Section 5 Baseline** sets out the data collated in respect of the relevant baseline conditions for this site including population, deprivation, employment, education, health care services and health profile of the local population.
  - Section 6 Consultation provides a summary of the consultation comments received related to health and wellbeing and indicates how the Proposed Development addresses comments raised.
  - Section 7 Impacts sets out the impacts of the HIA aligning with the methodology outlined in Section 4 of this report.
  - Section 8 Recommendations provides a summary of the recommendations including mitigation or enhancement and appropriate monitoring and evaluation against each of the assessed health and wellbeing determinants.
  - Section 9 Summary provides a summary and conclusion to the assessment presented, including recommendations for any mitigation or enhancement that may be required following identification of impacts.

# 2. OVERVIEW OF SITE & PROPOSED DEVELOPMENT

#### Site Location

- 2.1. The Site is located within the administrative area of Bassetlaw District Council ("BDC"), and within Nottinghamshire County.
- 2.2. The Site extends to 888.3 ha and primarily comprises multiple agricultural fields defined by hedgerow and individual trees.
- 2.3. The Site includes part of the existing West Burton Power Station site, covering the area around the existing 400kV substation, as well as a number of local roads including sections of Wheatley Road; Station Road; Gainsborough Road, and Wood Lane in the north-western portion of the Site, and Littleborough Road, and Common Lane, in the eastern portion of the Site.
- 2.4. The nearest settlement to the Site is Sturton le Steeple. Within the wider surrounding area there are the following settlements including Knaith approximately 250m east on the opposite side of the River Trent, North Leverton with Habblesthorpe and Fenton located 500m to the south of the Site. South Leverton, Clarborough, North Wheatley and South Wheatley are located 1.km to the south, 850m to the west, 1.3km, and 1km to the north of the Site, respectively. Gainsborough is located c.5km to the north-east of the Site.

### **Proposed Development**

- 2.5. The Proposed Development is defined under sections 14(1)(a) and 15(2) of the Planning Act 2008 as a Nationally Significant Infrastructure Project (NSIP), as it comprises the construction of an onshore generating station in England exceeding 50 megawatts (MW). Associated development and other ancillary works are also proposed as part of the Proposed Development. The Proposed Development and associated infrastructure are defined in Schedule 1 of the draft Development Consent Order (DCO) [EN010163/APP/3.1].
- 2.6. The main key components of the Proposed Development are as follows:
  - Solar photovoltaic (PV) panels and associated infrastructure (e.g. PV module mounting infrastructure, inverters, transformers and switchgear).
  - Cable infrastructure (including high, medium, and low voltage power, earthing, communication, and control).
  - Substation compound housing an onsite substation and control buildings.
  - Battery Energy Storage System (BESS) compound house Battery Storage Enclosures (BSE) and associated infrastructure.
  - Fencing and security measures.
  - Internal access tracks and crane hardstandings.
  - Site entrances onto the highway.

- Temporary construction areas, worker facilities, compounds, and infrastructure.
- Landscaping including creation of new habitat areas.
- Permissive paths.
- Biodiversity mitigation.
- 2.7. During the construction phase, the project will require five temporary construction compounds and tracks to access all parts of the Site. Once operational, the development will function for 40 years before being decommissioned. During decommissioning, all structures will be removed, but most underground cables will remain to minimise the potential for significant adverse effects.
- 2.8. The layout of the solar PV modules has been determined through consultation with the landowner, drainage board, known utility asset owners, statutory consultees and the public. The layout has also been informed by technical assessments.
- 2.9. A BESS will be an associated part of the electrical infrastructure comprising the Proposed Development, located in the northern part of the eastern portion of the Site, near the existing substation at the West Burton Power Station. The BESS will consist of individual containers which will likely include inverters and system controllers, with an estimated storage capacity of 150MW.
- 2.10. Full detail of the Proposed Development is presented in ES Chapter 4 [EN010163/APP/6.2.4].

# 3. CONTEXT OF HEALTH IMPACT ASSESSMENT

# **Definition of a Health Impact Assessment**

3.1. Health is defined by the World Health Organization (WHO) as:

"...a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

3.2. A HIA is commonly defined as:

"A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population"<sup>2</sup>.

3.3. The vision for health was captured by Dahlgren and Whitehead in their 'Rainbow of Determinants' diagram, which depicts all of the wider factors which determine our health and well-being, as shown in Figure 3.1.

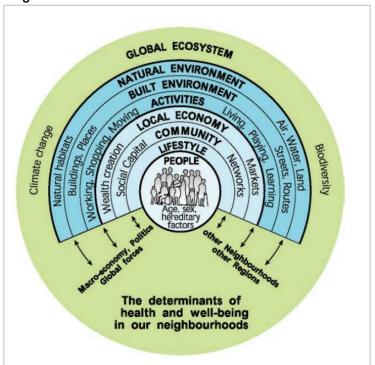


Figure 3.1: Main Determinants of Health

Source: Human ecology model of a settlement (Barton and Grant, 2006)3.

<sup>&</sup>lt;sup>1</sup> Constitution of the World Health Organisation (adopted by the International Health Conference July1946. Available at: <a href="https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1">https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1</a>.

<sup>&</sup>lt;sup>2</sup> Health impact assessment for intersectoral health policy: a discussion paper for a conference on health impact assessment: from theory to practice: Lehto & Ritsatakis, 1999.

<sup>&</sup>lt;sup>3</sup> Barton, H. and Grant, M. (2006). A health map for the local human habitat. Journal of the Royal Society for the Promotion of Health, 126.

- 3.4. Many factors influence health and well-being. These include social, economic and environmental factors such as, but not limited to, new housing stock, community networks and amenities, places to play, accessibility and modes of travel, open space and environmental improvements. These are known as determinants of health. The Proposed Development will contribute to shaping some of these determinants of health and, ultimately, contributing an entirely new housing stock to the area will have potential to positively influence health and well-being.
- 3.5. This HIA is based upon a socio-economic model of health. It is a tool to organise and appraise both positive (for example, the creation of jobs) and negative (for example, the generation of pollution) impacts on the different affected subgroups of the population that might result from a development.
- 3.6. The HIA aims to identify all these effects on health in order to enhance the benefits for health and minimise any risks. The HIA framework moves beyond analysing healthcare services, which help people when they are ill, to assessing the effects of development upon major health assets, which help people stay healthy.
- 3.7. One of the additional aims of a HIA is to assist public health management planning. Management planning is an impartial output as it proposes ways in which health and health inequalities can be addressed by all parties involved in the physical design of the Proposed Development. In this way, benefits can be embodied within the Proposed Development and extend beyond the life of the HIA itself.

#### **Literature Review**

- 3.8. A literature review is presented in this section which considers commentary on the relationship between changes to health determinants and links to health outcomes, including the following:
  - HIA of Government Policy<sup>4</sup>.
  - Health Equity in England: The Marmot Review 10 Years On (2020)5.
  - NHS Long Term Plan (January 2019)6.
  - Health Impact Assessment in Spatial Planning (October 2020)7.
  - Reaching Out: Influencing the Wider Determinants of Health (NLGN)8.

<sup>&</sup>lt;sup>4</sup> Health Impact Assessment of Government Policy - A guide to carrying out a Health Impact Assessment of new policy as part of the Impact Assessment process. Department of Health, July 2010.

<sup>&</sup>lt;sup>5</sup> Institute of Health Equity (2020). Health Equity in England: The Marmot Review 10 Years On. Available at: <u>Health Equity in England\_The Marmot Review 10 Years On\_full report (1).pdf</u>..

<sup>&</sup>lt;sup>6</sup> NHS Long Term Plan: NHS, January 2019. Available at: <a href="https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf">https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf</a>.

<sup>&</sup>lt;sup>7</sup> Health Impact Assessment in Spatial Planning – A guide for local authority public health and planning teams, Public Health England, October 2020. Available at: Health Impact Assessment in spatial planning (publishing service gov.uk).

<sup>&</sup>lt;sup>8</sup> Reaching Out: Influencing the Wider Determinants of Health, NLGN. November 2017. Available at: Reaching-Out\_FINAL.pdf (newlocal.org.uk)

- Inclusive and Sustainable Economies: Leaving no-one behind<sup>9</sup>.
- Targeting Health Inequalities: Realising the Potential of Targets in Reducing Health Inequalities (September 2023)<sup>10</sup>.
- A Mentally Healthier Nation<sup>11</sup>.
- The Big Mental Health Report 2024<sup>12</sup>.

#### **HIA of Government Policy**

3.9. This guide was prepared by the Department of Health to help policymakers decide the level of HIA required in preparing policies in the respective local administrations, and then to guide them through the process of undertaking the HIA. As such, reports referred to in paragraph 3.8 of this report are assumed to have been informed, in some form and extent, by the content provided within this guide.

#### Health Equity in England: The Marmot Review 10 Years On (2020)

3.10. The report, published in 2020, reviews the evidence and conclusions made in the Marmot Review of health equality in England in 2010. It identifies that, while life expectancy was projected to improving beyond 2010 Marmot Review, since 2015/16 increases have slowed, and there have been notable deteriorations in physical and mental health and widening health inequalities. The Marmot Review 10 Years On indicates that the conclusion reached in the 2010 Marmot Review is endorsed once again in 2020 publication, and is noted as follows (p.6):

"Health inequalities are not inevitable and can be significantly reduced...avoidable health inequalities are unfair and putting them right is a matter of social justice. There will be those who say that our recommendations cannot be afforded, particularly in the current economic climate. We say that it is inactions that cannot be afforded, for the human and economic costs are too high".

#### **NHS Long Term Plan**

3.11. The NHS Five Year Forward View published in October 2014<sup>13</sup> recognised how healthcare needed to adapt to take advantage of breakthroughs in science and technology. The report was specific to the NHS, however it provided a useful overview of areas for improvement. The Five Year Forward View highlighted the role that local democratic leadership have on public health. The financial constraints which the NHS is operating within are well documented and it is important that local authorities encourage new developments in their respective areas that can bring health benefits to new and existing communities.

<sup>&</sup>lt;sup>9</sup> Inclusive and sustainable economies: leaving no-one behind. Public Health England. Available at: <u>Inclusive and sustainable economies: leaving no-one behind (publishing.service.gov.uk)</u>

<sup>&</sup>lt;sup>10</sup> Targeting Health Inequalities: realising the potential of targets in reducing health inequalities, September 2023. The Health Foundation. Available at: <u>Targeting health inequalities – realising the potential of targets in addressing health inequalities – The Health Foundation</u>

<sup>&</sup>lt;sup>11</sup> A Mentally Healthier Nation, September 2023. Available at: AMentallyHealthierNation\_Digital\_corrected-1.pdf

<sup>&</sup>lt;sup>12</sup> The Big Mental Health Report, 2024. Available at: Big Mental Health Report 2024.

<sup>&</sup>lt;sup>13</sup> NHS Five Year Forward View: NHS, October 2014.

3.12. The NHS Long Term Plan, published in January 2019, sets the NHS's priorities for care quality and outcomes improvement for the next decade. The Plan goes further on the NHS Five Year Forward View's focus on cancer, mental health, diabetes, multimorbidity and healthy ageing including dementia, and extends its focus to children's health, cardiovascular and respiratory conditions, and learning disability and autism, amongst others.

#### Health Impact Assessment in Spatial Planning

- 3.13. The Health Impact Assessment in Spatial Planning guide was published in 2020 by Public Health England (PHE) and aims to guide the use of HIA in respect of consideration of development proposals. It puts people and their health at the heart of the planning process and supports the use of HIA in the planning system to address local health and wellbeing needs and tackle inequalities through influencing the wider determinants of health.
- 3.14. The guide indicates the process a HIA should follow (Screening, Scoping, Assessment, Reporting and Monitoring), and advises on the types of HIA that can be undertaken and the decision-making process to determine the appropriate option to take forward.
- 3.15. A HIA should identify positive and negative impacts of a proposal and identify measures to both maximise the positives and minimise the negatives. Overall, the output of the HIA can help to identify a set of evidence-based practical recommendations to promote and protect the health of local communities.

#### Reaching Out: Influencing the Wider Determinants of Health (November 2017)

- 3.16. This report was published in November 2017 by the New Local Government Network (NLGN), and it focuses on the different ways in which public health in local government is influencing the wider determinants of health. The report recommends some key areas for public health teams to prioritise:
  - Work more closely with economic development teams, recognising that good health and employment are closely linked, as are poor health and worklessness.
  - Collaboration between county and district councils should be developed.
  - Develop stronger relationships with services responsible for groups facing poor health outcomes, in particular agencies in the criminal justice system.
- 3.17. In order to enable public health to extend its influence, the report also recommends that:
  - Health and Wellbeing Boards are given the power and resource to drive forward longterm prevention initiatives.
  - Public health workforce development incorporates the need for 'soft skills' as well as the technical skills.
  - Extend the influence of public health, councils should be embedding a culture of health in all practices and policies.
  - Central government needs to support long-term funding for preventative initiatives.

#### Inclusive and Sustainable Economies: leaving no-one behind

- 3.18. This document was published by Public Health England<sup>14</sup>, and it supports place-based action and sustainable economies as a mechanism to reduce health inequalities through improving the health of people and communities, whilst ensuring that economic activity is sustainable and achieving shared prosperity for everyone, with no-one left behind.
- 3.19. The report includes a 6-step approach to using the inclusive and sustainable economies framework and data catalogue, there are summarised below:
  - Establish place-based inclusive and sustainable economy networks this requires coordinated and collaborative action across a broad range of cross-cutting sectors.
  - Set a holistic vision set a vision that looks beyond gross domestic product (GDP) as a measure of economic success.
  - Measure and benchmark use the framework and data catalogue to consider each
    of the 12 building blocks, identify areas of need and benchmark local performance.
  - Consider the local context reflect on local economic, social and environmental conditions that may constrain or contribute to the development of inclusive and sustainable economies.
  - Consult with residents and communities adopt a participatory approach through capturing local resident and community insights.
  - Prioritise areas for action prioritise certain areas for action based on the above considerations ensuring that the effort is targeted towards the areas of greatest need.

# Targeting Health Inequalities: Realising the Potential of Targets in Reducing Health Inequalities

- 3.20. This report was published by The Health Foundation, and it examines the potential of using targets to reduce health inequalities in all four UK nations. The report states that reducing health inequalities is beneficial for all of society as it can help to boost employment and productivity whilst relieving pressures on the NHS budget.
- 3.21. The report includes several recommendations for what makes a 'good' health target. These are summarised below:
  - Targets should be used in a cross-government health inequalities strategy using targets in policy can be effective in galvanising action by providing a shared policy focus.
  - Targets should use a geographical measure of inequality where possible targets should be aimed at the lowest geographical level possible to enable health gains in all of the most deprived parts of the country.

<sup>&</sup>lt;sup>14</sup> As formerly known, now UK Health Security Agency and Office for Health Improvement and Disparities.

- Targets should measure a range of health outcomes there is value in measuring variables including, life expectancy, infant mortality rate, anxiety and depression, suicide rates etc.
- Targets should be accompanied by interim indicators evidence from 2000-2010
  health inequalities suggest that it takes around 10 years of concerted policy action to
  achieve small measurable reductions in health inequalities. Therefore, it is suggested
  that any targets should be designed with at least a 10-year timeframe.
- Targets should inspiration and achievable it is suggested that initial targets focus on levelling up health, improving child health and better mental health.
- Targets should be resourced and supported by policy action and political leadership

   resourcing should be adequate and provided nationally but with devolved influence
   and control as many of the interventions will be implemented locally.

#### A Mentally Healthier Nation

- 3.22. The Centre for Mental Health collaborated with over 30 organisations with an interest in mental health to develop this 2023 report to address the worsening of mental health in the UK and build a mentally healthier nation. The plan focuses on three key areas: prevention, equality, and support.
- 3.23. Prevention focuses on the aim of addressing the causes of mental ill health, resulting in more people enjoying good mental health and fewer people experiencing ill health. By addressing equality, the report intends to close the health gaps between different groups. The topic of support calls for improved timely, local access to services for everyone. If the actions outlined in the report are taken forward, the report states, securing better mental health for more people will create a fairer, healthier and more prosperous future for all.

#### The Big Mental Health Report, 2024

- 3.24. The Big Mental Health Report was produced by Mind, supported by the Centre for Mental Health, to provide a comprehensive picture of mental health across England and Wales. The report brings together the latest evidence on how the nation's mental health is doing as well as how mental health services are in England and Wales. The report looks at a range of key themes including: the current status of mental health, money and work, access to and experiences of mental health support, education and mental health, and stigma and discrimination.
- 3.25. Looking at the topic of money and work, the report explains that there is a clear link between money and mental health. If you have a mental health problem, evidence suggests that you'll earn on average £8,400 less per year than someone without one. Poverty puts people at a risk of mental health problems. Meanwhile, there is evidence that being employed can be a protective factor for mental health. The report includes four key recommendations: making sure people with a mental health problem get quality care on time, supporting young people with their mental health, tackling mental health stigma and discrimination, and dealing with the social factors affecting mental health.

# Policy and Guidance Relevant to HIA

- 3.26. This HIA is set in the context of the following policy:
  - National Planning Policy Framework (NPPF) (February 2025)<sup>15</sup>.
  - National Planning Practice Guidance (NPPG).
  - NHS Health and Wellbeing Framework: Strategic Overview<sup>16</sup>.
  - Nottinghamshire Spatial Planning and Health Framework<sup>17</sup>.
  - Bassetlaw Local Plan<sup>18</sup>.
  - Bassetlaw Vision 2040<sup>19</sup>.
  - Bassetlaw Health and Wellbeing Strategy<sup>20</sup>.
  - Nottinghamshire Joint Health and Wellbeing Strategy<sup>21</sup>.
  - The Mental Health Act<sup>22</sup>.
  - The Five Year Forward View for Mental Health<sup>23</sup>.
  - The Community Mental Health Framework For Adults and Older Adults<sup>24</sup>.
  - Advancing Mental Health Equalities Strategy<sup>25</sup>.

#### **National Planning Policy Framework**

3.27. The National Planning Policy Framework (NPPF) published in February 2025 notes the significance of delivering social outcomes that align with social Sustainable Development

https://www.nottinghamshire.gov.uk/media/2321754/notts-spatial-planning-health-framework.pdf

https://www.bassetlaw.gov.uk/media/gn1kjm1b/adopted-bassetlaw-local-plan-2020-2038.pdf

<sup>&</sup>lt;sup>15</sup> National Planning Policy Framework (NPPF), February 2025.

<sup>&</sup>lt;sup>16</sup> NHS Health and Wellbeing Framework: Strategic Overview. Available at: <a href="https://www.england.nhs.uk/wp-content/uploads/2021/11/NHS-health-and-wellbeing-framework-strategic-overview.pdf">https://www.england.nhs.uk/wp-content/uploads/2021/11/NHS-health-and-wellbeing-framework-strategic-overview.pdf</a>.

<sup>&</sup>lt;sup>17</sup>Spatial Planning and Health Framework: Nottinghamshire County Council, May 2019. Available at:

<sup>&</sup>lt;sup>18</sup> Bassetlaw Local Plan (2020-2038): Bassetlaw District Council. May 2024. Available at:

<sup>&</sup>lt;sup>19</sup> Bassetlaw Vision 2040: Bassetlaw District Council. December 2022. Available at: <a href="https://www.bassetlaw.gov.uk/about-us/bassetlaw-vision-2040/bassetlaw-vision-2040-council-plan-actions/#healthy">https://www.bassetlaw.gov.uk/about-us/bassetlaw-vision-2040/bassetlaw-vision-2040-council-plan-actions/#healthy</a>

<sup>&</sup>lt;sup>20</sup> Bassetlaw Health and Wellbeing Strategy (2024-2027): Bassetlaw District Council. July 2024. Available at: https://www.bassetlaw.gov.uk/media/botjfoxf/health-and-wellbeing-strategy-2024-2027.pdf

<sup>&</sup>lt;sup>21</sup> Nottinghamshire Joint Health and Wellbeing Strategy (2022–2026): Nottinghamshire County Council. May 2022. Available at: <a href="https://www.bassetlaw.gov.uk/media/wx3bd4z2/appendix-d-nottinghamshire-joint-health-and-wellbeing-strategy-2022-2026.pdf">https://www.bassetlaw.gov.uk/media/wx3bd4z2/appendix-d-nottinghamshire-joint-health-and-wellbeing-strategy-2022-2026.pdf</a>

<sup>&</sup>lt;sup>22</sup> The Mental Health Act, 1983. Available at: Mental Health Act 1983

<sup>&</sup>lt;sup>23</sup> The Five Year Forward View for Mental Health, February 2016. Available at: The Five Year Forward View for Mental Health

<sup>&</sup>lt;sup>24</sup> The Community Mental Health Framework For Adults and Older Adults, September 2019. Available at: <u>community-mental-health-framework-for-adults-and-older-adults.pdf</u>

<sup>&</sup>lt;sup>25</sup> Advancing Mental Health Equalities Strategy, October 2020. Available at: <u>NHS England » Advancing mental health equalities strategy</u>

- objectives. This can include the promotion of community health and wellbeing through facility and infrastructure provision within proposed developments.
- 3.28. The main section of the NPPF that is significant from a social outcome and health perspective is the 'Promoting Healthy and Safe Communities' section which outlines the importance of delivering 'healthy, inclusive and safe' spaces. If this is achieved, these places will (Paragraph 96):
  - Facilitate and support social gatherings and interactions through the utilisation of multipurpose developments, well-connected neighbourhood centres and dynamic street frontages.
  - Be easily accessible by a variety of transport modes, including cars, bikes, and public transport. The design of these sites strongly emphasises and encourages the public's choice to utilise active transport through the facilitation of clearly designated pedestrian walking and cycling routes.
  - Promote safety and security through clearly and beautifully designed connectivity and
    accessibility routes throughout the site, which assist in ensuring that fear of crime and
    disorder do not undermine the quality of life of residents when utilising the space.
  - Have high liveability levels by supporting and empowering residents to undertake
    healthy lifestyles and adopt routines which improve their wellbeing, specifically when
    this aids in addressing previously recognised community wellbeing requirements. This
    may be achieved through the provision of safe and easily available green spaces or
    local amenities, including shops, sports facilities, access to healthy food etc. within a
    walkable distance to residents' homes.
- 3.29. The NPPF states (in paragraph 98) that to deliver social, recreational, and cultural amenities that the community requires, the planning of all developments should have the wellbeing of the entire community at the forefront of their design. Furthermore, it highlights the need to preserve locally valued facilities, so as not to diminish the community's capability to perform essential day-to-day tasks. The need for an integrated approach to considering household location, economic uses and community spaces and amenities is also highlighted.

#### **National Planning Practice Guidance**

- 3.30. The NPPG further strengthens the relationship between health and planning and recommended the use of HIAs where there are expected to be significant impacts on an area. The NPPG highlights that a range of issues can be identified through the plan-making and decision-making processes in respect of health and healthcare infrastructure, including how:
  - Development proposals can support strong, vibrant, and healthy communities and help create healthy living environments, which should include making physical activity easy to do and create places and spaces to support community engagement and social capital.
  - The healthcare infrastructure implications of any relevant proposed local development should be considered.

- Opportunities for healthy lifestyles have been considered, for example planning for an
  environment that supports people of all ages in making healthy choices, helps to
  promote active travel and physical activity.
- Potential pollution and other environmental hazards, which might lead to an adverse impact on human health, are accounted for in the consideration of new development proposals.
- Access to the whole community, by all sections, whether able bodied or disabled, has been promoted.

#### NHS Health and Wellbeing Framework: Strategic Overview

- 3.31. The NHS Health and Wellbeing Framework targets the major factors which affect and could improve organisational health, namely management capabilities, job quality, social relationships at work, support for workers coping with health conditions or life stresses, and promotion of workplace health. The framework further outlines the primary goal of the NHS putting the needs of patients first through a holistic approach to health and wellbeing for individuals, teams, managers and organisations, alongside increased patient safety and care quality.
- 3.32. The NHS Health and Wellbeing Model displays the core tools utilised to create a health and wellbeing culture with people and patients at its core at the NHS. Those tools include:
  - Relationships the way that NHS staff and teams work together with care and compassion.
  - Improving personal health and wellbeing this includes the proactive interventions and services that empower our NHS people to manage their own health and wellbeing.
  - Professional wellbeing support considering the teams and services, like occupational health, available to support the organisation and people in improving their health and wellbeing.
  - Data insights referring to the NHS' approach to understanding health and wellbeing needs and subsequently measuring the NHS' effectiveness in supporting them.
  - Environment reviewing physical workspaces and the facilities available to our people to rest, recover and succeed.
  - Managers and leaders How leaders and managers across all levels of the NHS provide health and wellbeing support as part of their role.
  - Fulfilment at work how the work and services provided at the NHS inspires the staff, and how the NHS supports their growth and passion.

#### **Nottinghamshire Spatial Planning and Health Framework**

- 3.33. This framework provides a comprehensive overview of health and planning across Nottinghamshire. It aims to integrate health considerations into planning applications, local plans, neighbourhood plans, and other relevant documents to enhance health and wellbeing and address social care infrastructure needs for Nottinghamshire's growing population.
- 3.34. The Nottinghamshire Rapid Health Impact Assessment Matrix focuses on the built environment and planning decisions' direct and indirect impacts, ensuring that health and wellbeing impacts of proposals are assessed. It identifies opportunities to maximise health benefits and minimise harms, emphasising early consideration of health in the planning process and addressing health inequalities.

#### Bassetlaw Local Plan (2020-2038)

- 3.35. This Local Plan outlines the Council's development strategy, planning policies, and proposals to guide land use and planning decisions in the district up to 2038. It envisions a future for Bassetlaw where new developments contribute to minimising health inequalities by improving access to safe, high-quality green and blue spaces, encouraging active travel, and enhancing recreational, health, and educational facilities. The plan highlights how these improvements will help reduce deprivation and address skills gaps, leading to improved community wellbeing.
- 3.36. Strategic Objective 8 focuses on promoting healthier, active communities by reducing locational disadvantages, encouraging healthy lifestyles and travel, and minimising environmental risks to achieve fair outcomes for everyone. Policy ST42: Promoting Healthy, Active Lifestyles supports this objective by setting a requirement that all proposals for 50 or more dwellings must submit a Rapid Health Impact Assessment Matrix as part of the planning application. The Council will recognise high performing schemes through Healthy Bassetlaw a health accreditation scheme for well–designed, healthy development proposals.

#### **Bassetlaw Vision 2040**

- 3.37. The Bassetlaw Vision 2040 Plan is the Corporate Plan that envisions transforming Bassetlaw into the greenest and most sustainable district for living and working, leveraging its historical strengths in energy production, manufacturing, and logistics to drive the net zero economy. To achieve this vision, six strategic pillars have been identified as foundational elements for Bassetlaw's development by 2040.
- 3.38. Pillar Six: Healthy District A key component of this vision is the improvement of resident lifestyles and health outcomes. The plan emphasises the promotion of sustainable living and the enhancement of both mental and physical health for all residents. This will be supported over the next four years by:
  - Investment in high-quality leisure facilities to provide local exercise options.
  - Encouragement of physical activity in green spaces, including walking, cycling, and other activities in parks and open spaces.
  - Running outdoor activities and events in local parks to promote physical and mental wellbeing.

- Promoting health and wellbeing programmes and initiatives, working with local health and education partners.
- Establishing the requirement for a health impact assessment to be completed as part of residential development proposals of 50 or more units, to ensure each scheme promotes healthy place-making
- Implementation of a new Community Safety Plan to address risk and vulnerability factors.
- Minimising the impacts of the rising cost of living through partnerships with residents, businesses, and the voluntary sector.
- Proactive collaboration with third parties, such as Nottinghamshire Wildlife Trust, to maximise the use and health benefits of parks and open spaces, supported by appropriate strategies.

#### Bassetlaw District Council Health and Wellbeing Strategy 2024 - 2027

3.39. Aligned with the Vision 2040 corporate plan, the Health and Wellbeing Strategy aims to improve resident lifestyles and health outcomes through sustainable living and the promotion of good mental and physical health. It highlights how success lies in a coordinated, collaborative effort involving the local authority, health and social care, local businesses, and the voluntary and community sector. The strategy focuses on partnerships to enhance health and reduce inequity, with the primary partner being the people of Bassetlaw. The ultimate measure of success will be the positive impact on individuals, enhancing overall health and wellbeing.

#### Nottinghamshire Joint Health and Wellbeing Strategy 2022-2026

- 3.40. The Joint Health and Wellbeing Strategy (JHWS) for Nottinghamshire County has been developed against a backdrop of reduced healthy life expectancy in some communities, increasing health inequalities, and global climate change. The strategy outlines that addressing these challenges is crucial, and improving health and wellbeing will require collaborative efforts to ensure everyone can thrive in their communities and maintain independence in later life. This involves addressing key factors contributing to good health, such as ensuring a healthy diet for all and providing safe housing. Additionally, the strategy focuses on enhancing the integration of services across Nottinghamshire to achieve the vision of enabling everyone to live healthier and happier lives.
- 3.41. The strategy sets out four key ambitions:
  - Give every child the best chance of maximising their potential.
  - Create healthy and sustainable places.
  - Ensure everyone can access the right support to improve their health.
  - Keep communities safe and healthy.

#### The Five Year Forward View for Mental Health

- 3.42. This independent report set out to begin a transformation in approach to Mental Health within the NHS. The report states that over the last 50 years there has been a transformation in mental health and with this comes the need to 're-energise and improve mental health care across the NHS'. The report provides data on mental health issues across the UK population as of 2016, as well as an insight into NHS spending on mental health at the time, before outlining relevant reforms for care provision.
- 3.43. One important aspect of the care strategy is 'prevention at key moments in life', which discusses the cycle formed by employment and health: suitable work can be food for your health, and good health means that you are more likely to be employed. Employment is vital to health and should be recognised as a health outcome. The report goes on to outline the delivery strategy up to the year 2020/21.

#### The Community Mental Health Framework for Adults and Older Adults

- 3.44. This Framework, published in 2019, aimed to put community at the centre of community mental health services. One of the key objectives of the NHS Long Term Plan was to develop 'new and integrated models of primary and community mental health care which will support adults and older adults with severe mental illnesses'. The framework goes on to make the 'case for change', by discussing current problems and barriers in place within the mental health care system, before moving on to outlining what the Framework can deliver and how it can be implemented.
- 3.45. The Framework sets out a new approach in which place-based and integrated mental health support, care and treatment are situated and provided in the community, enabling more and higher quality care to be provided at a local community level.

#### Advancing Mental Health Equalities Strategy, 2020

- 3.46. This strategy, published in 2020, summarises the core actions which need to be taken to bridge the gaps for communities fairing worse than others in mental health services. These key actions fall into three workstreams, Workstream 1: Supporting local health systems, Workstream 2: Data and information, and Workstream 3: Workforce.
- 3.47. Workstream 1 focuses on local health systems which play a crucial role in addressing mental health inequalities as they ideally positioned to produce local solutions within the correct context for communities experiencing mental health inequalities, and most mental health services are commissioned locally. Workstream 2 outlines how collecting and using data to inform intelligent insights and decision-making is critical in advancing mental health equalities. Workstream 3 looks at the workforce, highlighting that a diverse and representative workforce at all levels of the system is fundamental in this strategy.

### 4. METHODOLOGY

#### Aims of the HIA

- 4.1. The aims of the HIA are twofold:
  - To identify the potential impacts on health and well-being (on existing residents) arising from construction, operation and decommission of the Proposed Development.
  - To identify ways to minimise any negative impacts and enhance any potentially positive impacts.

# **Study Area**

The geographical area that will be influenced by the Proposed Development varies depending on the health determinant category being addressed. This is borne from the fact that the determinants considered in the scope of a HIA are varied in nature and focus and therefore the study area needs to reflect this to be able to ensure all appropriate receptors and impacts are identified during the course of the assessment. The study area for the Proposed Development is presented in **Table 4.1**.

Table 4.1: Study Area for Health Impact Assessment

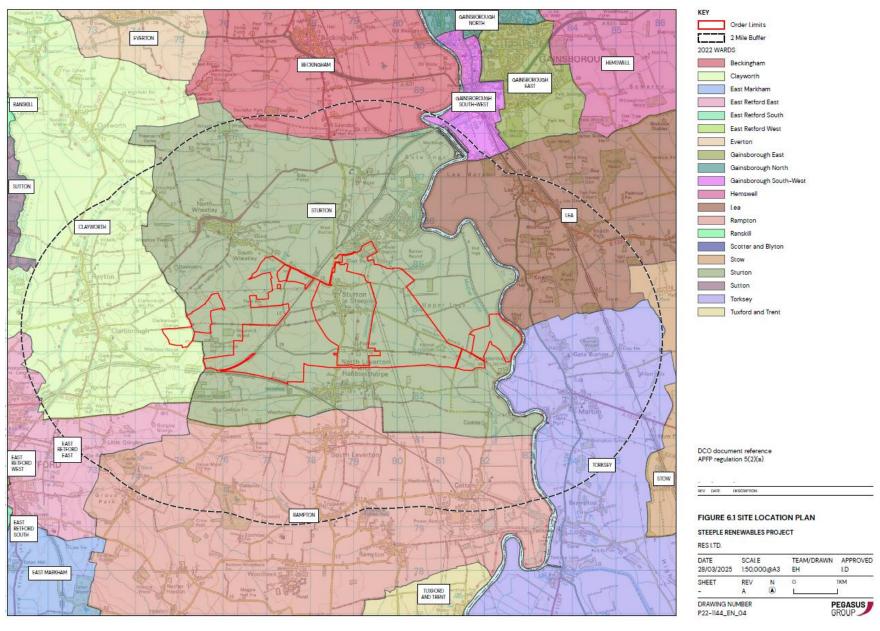
Spatial Scale	Name of Area
Local - LSOA	Bassetlaw 002B
	Bassetlaw 002E
Local - Ward	Sturton
	Clayworth
District	Bassetlaw
County	Nottinghamshire
Comparator Areas	East Midlands
	England/Great Britain (depending on availability of data)

4.2. Figure 4.1 and 4.2 shows the Order Limits in the context of the local (LSOA and Ward) and district (Bassetlaw) spatial scales. Data are presented for the spatial scale where appropriate and where data are available, all tables and charts are ordered in size of the spatial scale. Figures 4.1 and 4.2 both include a two-mile buffer, this distance is considered throughout the HIA as it is considered to be a maximum walking distance for local facilities and amenities, as well as being a relevant distance for local impacts.

Figure 4.1: Order Limits and Surrounding LSOAs West Lindsey 0048 Order Limits West Lindsey 006D Bassetlaw OO3A West Lindsey 004A 2 Mile Buffer 2021 LSOAS West Lindsey 004F Bassetlaw 002A Bassetlaw 002A West Lindsey 006B West Lindsey 006C Bassetlaw 002B West Lindsey 004E Bassetlaw 002E Bassetlaw 003A Bassetlaw 003B Bassetlaw 003B West Lindsey 004D Bassetlaw 003C Bassetlaw 008A Bassetlaw 0088 Bassetlaw 008C Bassetlaw 008D Bassetlav 003C Bassetlaw 008E Bassetlaw 008F West Lindsey 007A Bassetlaw OIOB Bassetlaw OI5A Bassetlaw 002B Bassetlaw 015C Bassetlaw O15F West Lindsey 002A West Lindsey 002E West Lindsey 004A West Lindsey 004B West Lindsey 004C West Lindsey 004D West Lindsey 004E West Lindsey 004F West Lindsey 005A West Lindsey 006A West Lindsey 006B West Lindsey 006C Bassetlaw 008A West Lindsey 006D West Lindsey 007A Bassetlaw OOBE West Lindsey 007B West Lindsey 007D West Lindsey 007C West Lindsey 007D Bassetlaw OOSF Bassetlaw 015C REV DATE DESCRIPTION Bassetlaw 008C Bassetlaw OIOR West Lindsey 007B LSOA PLAN STEEPLE RENEWABLES PROJECT RESITD. SCALE TEAM/DRAWN APPROVED 28/03/2025 1:50,000@A3 Bassetlav OI5A EH SHEET REV West Lindsey 007C Bassetlaw 015F DRAWING NUMBER PEGASUS GROUP

P22-1144\_EN\_05

Figure 4.2: Order Limits and Surrounding Wards



# **Sensitive Receptors**

- 4.3. Receptors of the Proposed Development in respect of HIA include those who are identified as being particularly vulnerable to change through the baseline analysis, and those in the general population who are either existing and/or future residents or users of amenities within the study area who may be affected by the changes.
- 4.4. A summary of groups who are existing and/or future users and are considered receptors are summarised as follows:
  - Existing residents in nearby communities.
  - People using existing / future services in the local area.
  - Existing businesses in the local area.
  - On-site workers during the construction, operational or decommissioning phases.
- 4.5. Those groups who are identified as being particularly vulnerable to change and are considered sensitive receptors are discussed in more detail in Table 5.16 of Section 5:

  Baseline of this report. Those who are in particularly vulnerable groups may indeed overlap with existing and/or future users within the study area.

## Scope of HIA

- 4.6. Policy ST42 of the Bassetlaw District Local Plan requires the submission of a Rapid Health Impact Assessment (HIA) Matrix for all residential developments of 50 or more units. While the Proposed Development does not consist of residential dwellings, the local plan highlights that larger developments are likely to have a significant impact on the health and well-being of local residents or specific groups within the community.
- 4.7. Bassetlaw sits within Nottinghamshire Administrative Area. Nottinghamshire County Council has published a Rapid Health Impact Assessment Matrix within its Spatial Planning and Health Framework<sup>26</sup> which is based on London Healthy Urban Development Unit (HUDU) guidance. The HUDU requires consideration of 11 determinants; the Spatial Planning and Health Framework requires the consideration of an additional determinant, resulting a total of 12 determinants to be considered. These are as follows:
  - Housing quality and design.
  - 2. Access to healthcare services and other social infrastructure.
  - 3. Access to open space and nature.
  - 4. Air quality, noise and neighbourhood amenity.

<sup>&</sup>lt;sup>26</sup> Spatial Planning and Health Framework: Nottinghamshire County Council, May 2019. Available at: <a href="https://www.nottinghamshire.gov.uk/media/2321754/notts-spatial-planning-health-framework.pdf">https://www.nottinghamshire.gov.uk/media/2321754/notts-spatial-planning-health-framework.pdf</a>

- 5. Accessibility and active transport.
- 6. Crime reduction and community safety.
- 7. Access to healthy food.
- 8. Access to work and training.
- 9. Social cohesion and lifetime neighbourhoods.
- 10. Minimising the use of resources.
- 11. Climate change.
- 12. Health inequalities.
- 4.8. While it is acknowledged that NCC guidance is based on the HUDU approach to HIA, it is considered that the Welsh Health Impact Assessment Support Unit (WHIASU): A Practical Guide (July 2020)<sup>27</sup> is instead used as the basis for assessment in relation to the Proposed Development<sup>28</sup>. WHIASU allows consideration of each of the determinants included in the HUDU approach, but also provides opportunity to identify and assess a range of potential sensitive receptors, including consideration of the most vulnerable or the most disadvantaged population groups relevant to the study area. Furthermore, while HUDU enables the identification of the beneficial and adverse effects, WHIASU encourages the assessment of their significance, as well as consideration of effect for each identified receptor independently.
- 4.9. WHIASU requires that likely health and wellbeing impacts are considered in relation to the following overarching determinants:
  - 1) Lifestyles.
  - 2) Social and community influences on health.
  - 3) Living / environment conditions affecting health.
  - 4) Economic conditions affecting health.
  - 5) Access and quality of services.
  - 6) Macro-economic, environmental and sustainability factors.
- 4.10. The WHIASU approach includes for those determinants identified as being relevant to the nature of the Proposed Development from the Nottinghamshire Spatial Planning and Health Framework. Furthermore, it includes for additional considerations which facilitate a more indepth assessment of the range of effects associated with the Proposed Development. Table 4.2 presents a summary of how the approach to assessment based on WHIASU

<sup>&</sup>lt;sup>27</sup> Wales Health Impact Assessment Support Unit (WHIASU) A Practical Guide, WHIASU, July 2020. Available at: <a href="https://phwwhocc.co.uk/wp-content/uploads/2020/07/Health-Impact-Assessment-A-Practical-guide.pdf">https://phwwhocc.co.uk/wp-content/uploads/2020/07/Health-Impact-Assessment-A-Practical-guide.pdf</a>.
<sup>28</sup> XXX

includes for consideration of the determinants identified within Nottinghamshire Spatial Planning and Health Framework.						

Table 4.2: Consideration of approach to HIA

Determinants Identified within the Nottinghamshire Spatial Planning and Health Framework	Overlap with WHIASU Approach
1. Housing quality and design	Not applicable to nature of Proposed Development.
Access to healthcare services and other social infrastructure	Not applicable to nature of Proposed Development
3. Access to open space and nature	The WHIASU determinants 'living / environmental conditions affecting health' and 'access and quality of services' include focus on accessibility, public amenity, and attractiveness of area and green space. Each determinant highlights the need for effective planning to ensure that people can access open space, nature and access routes. The WHIASU determinant goes on further to assess the quality of these services that support overall health and wellbeing.
4. Air quality, noise and neighbourhood amenity	The WHIASU determinant 'living / environmental conditions affecting health' looks at how living conditions, including air quality and noise, impact overall health and wellbeing as well as considering a broader range of environmental factors such as housing quality, access to green spaces, and hazards.
5. Accessibility and active transport	The WHIASU determinant 'access and quality of services' shares a focus on accessibility. Both determinants highlight the need for effective planning to ensure that people can easily access essential services, facilities and active transport routes. The WHIASU determinant goes on further to assess the quality of these services that support overall health and wellbeing.
6. Crime reduction and community safety	The WHIASU determinant 'living / environmental conditions affecting health' considers crime reduction and safety. In addition, it also enables consideration of neighbourhood design and safety, as well as identifying hazards.
7. Access to healthy food	The WHIASU determinant 'lifestyles' includes consideration of diet and accessibility to food options.
8. Access to work and training	The WHIASU determinant 'economic conditions affecting health' looks at how unemployment, income, and workplace conditions impact health.
	The 'access and quality of services' determinant focuses on education and training.
	Both determinants ensure that any effects on these areas are identified and addressed to promote overall wellbeing.

9. Social cohesion and lifetime neighbourhoods	The WHIASU determinant 'living/environmental conditions affecting health' outlines the importance of neighbourhood design. It requires careful consideration of how existing communities are connected and how avoiding the creation of physical barriers ensures that social cohesion remains accessible for target groups.
10. Minimising the use of resources	The WHIASU determinant 'macro-economic, environmental and sustainability factors' considers minimisation of the use of resources, as well as sustainability.
11. Climate change	Considerations of this determinant are present in the WHIASU determinant 'macro-economic, environmental and sustainability factors' determinant, including considerations in terms of government policies, biodiversity and climate.
12. Health inequalities	The Nottinghamshire Spatial Planning and Health Framework requires consideration of health inequalities from the perspective of under-served communities. The alignment with WHIASU approach in this HIA requires identification of relevant underserved communities through the baseline. These underserved communities are considered to be any group which is vulnerable or disadvantaged and have greatest risk of experiencing health inequalities and are likely to be more sensitive to changes to health and wellbeing. Ultimately, those which are relevant to the Site and Proposed Development are identified as 'target groups' and presented as receptors throughout the assessment. As such, use of WHIASU approach ensures that all potential effects on these target groups are identified, and, therefore, the potential for health inequalities are considered for all development phases, for all determinants and potential effects, and for all relevant receptors.

#### Assessment of effects

- 4.11. As required in the WHIASU Practical Guide, the assessment should identify the nature, likelihood, scale and significance and timing of the impacts and their distribution. As such, the methodology aims to do just that, with the ultimate aim of clearly identifying any potential negative impacts as well as any benefits of the Proposed Development. As much qualitative and quantitative evidence is used to inform the assessment of effects.
- 4.12. Table 4.4 presents a summary of the criteria used to identify the likelihood and scale (including distribution and timing) of impact. The overall significance of the impact is defined by considering the likelihood against the scale (see matrix in Table 4.5).

Table 4.4: Assessment of effects – summary of considered factors

Factor	Criteria
Likelihood of impact	Definite – strong, direct evidence, for example from a range of qualitative
·	and quantitative sources, to support the expectation of the impact
	Probable – good direct evidence, for example from a range of qualitative
	and quantitative sources, to support the expectation of the impact
	Possible – some evidence from limited sources, for example social media
	or grey literature, public engagement, to support the expectation of the
	impact
	Unlikely – no direct evidence, but considered as a potential impact, either
	through public engagement or professional opinion
Scale of impact	High - expectation of considerable intensity of impact and irreversible, and,
	by association, high severity, to a large number of people or entire group
	over an extended period of time (over 5 years)
	Medium – expectation of moderate intensity of impact and possibility of
	reversibility or limitation of impact over time, and, by association, moderate
	severity, to a moderate number of people or at least part of a group over a
	medium-term period (2-5 years)
	Low – expectation of limited intensity of impact and likely reversibility of
	impact over time, and, by association, low severity, to a limited number of
	people or individuals within a larger group over a short-term period (up to 2 years)
	Negligible – very low intensity of impact expected and reversibility over
	time, and, by association, negligible severity, to a very limited number of
	people or group, or otherwise no identified persons or group, over a limited
	period of time (up to 1 year)
Overall impact	Positive impact – Green
	Neutral impact – Yellow
	Negative impact – Red
	Not relevant or unknown – Grey

Table 4.5: Matrix of overall significance of impact

	Likelihood of impact							
of impact		Definite	Probable	Possible	Unlikely			
dω	High	Major	Major	Moderate	Negligible			
Ę	Medium	Major	Moderate	Minor to	Negligible			
				Moderate				
/agnitude	Low	Moderate	Minor to	Minor	Negligible			
gni			Moderate					
Ma	Negligible	Negligible	Negligible	Negligible	Negligible			

#### Recommendations

4.13. The impact assessment will make clear what recommendations are made relating to the potential health impacts, whether they be mitigation to minimise a negative impact or enhancement to maximise a positive impact. It will be made clear whether these recommendations are embedded into the design or whether they are to be conditioned. The responsible party and timeframe of implementation will be made clear. The outcome of this aspect of the HIA is envisaged to act as an action plan for ongoing monitoring of the Proposed Development's commitments and potential impacts.

# **Limitations and Assumptions**

- 4.14. The range of data and the scales at which it is presented in the baseline of this HIA is dependent on publicly available data for each topic and target group. Where information is not presented, this is because no appropriate data at the relevant spatial scale has been identified. For example, data relating to pregnancy and maternity at the district scale.
- 4.15. It is assumed that the effects which are anticipated to occur during the construction phase are to be mirrored during the decommissioning phase of the Proposed Development.

# 5. BASELINE

#### Introduction

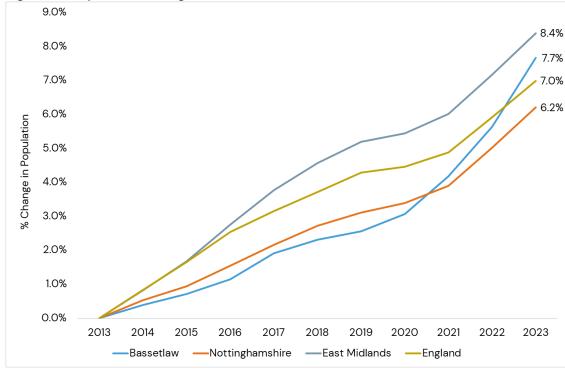
- 5.1. A review of the local conditions relative to health and well-being has been undertaken to provide a baseline against which the potential impacts can be assessed, and recommendations developed. The baseline includes coverage of the following:
  - Population.
  - Gender.
  - Deprivation.
  - Ethnic diversity.
  - Sexual orientation.
  - Religious affiliation.
  - Pregnancy and maternity.
  - Employment.
  - Unemployment.
  - Skills and qualifications.
  - Health profile of the local population.
  - Mental health profile of the local population.
  - Crime.
  - Physical Activity.
  - Open space and recreation.
  - Vulnerable groups.
- 5.1. Baseline data has been collated from a range of sources including:
  - Office for National Statistics (ONS).
  - Index of Multiple Deprivation (2019).
  - Business Register & Employment Survey.
  - 2011 Census.
  - 2021 Census.

- Public Health England.
- NHS General Practice Workforce.
- LG Inform.

#### **Population**

5.2. Data published by the Office for National Statistics (ONS) show that, as of 2023, the population of Bassetlaw (where the Proposed Development is located) was 122,286. The population of Bassetlaw has grown by 7.7% (8,709) between 2013 and 2023 (see Figure 5.1). The population of Nottinghamshire also increased over this timeframe, by 6.2% which is below the growth for the East Midlands (8.4%) and England (7%).





Source: ONS, Mid-year population estimates

5.3. The fastest growing age group in Bassetlaw was those aged 65+, having grown by 19.8% (4,499) between 2013 and 2023. Those aged 0–15 also increased (7.8% – 1,563), as did those aged 16–64 (3.7% – 2,647 additional people). Table 5.1 sets the data out in more detail.

Table 5.1: Population change by age in Bassetlaw, 2013-2023

	2013	2023	Absolute change	% Change
Aged O-15	19,933	21,496	1,563	7.8%
Aged 16-64	70,926	73,573	2,647	3.7%
Aged 65+	22,718	27,217	4,499	19.8%
Total	113,577	122,286	8,709	7.7%

Source: ONS, Population Projections

5.4. Projections from the ONS show that the population of Bassetlaw is expected to increase by 11.4% (13,336 – see Table 5.2) between 2018 and 2038. The population aged 65+ is projected

to increase at the fastest rate in Bassetlaw with growth of 43.9%, those aged O-15 are expected to rise by 4.3% and the working age population is projected to increase by 1.8%.

Table 5.2: Population Projections in Bassetlaw, 2018-2038

	2018	2038	Absolute change	% Change		
Aged 0 to 15	20,836	21,722	886	4.3%		
Aged 16 to 64	70,491	71,732	1,241	1.8%		
Aged 65+	25,512	36,722	11,210	43.9%		
Total	116,839	130,175	13,336	11.4%		

Source: ONS, Population Projections

#### Deprivation

- 5.5. The most recent English indices of deprivation were published in September 2019 by the Ministry of Housing, Communities and Local Government. They provide statistics on relative deprivation in small areas in England. The small areas are measured as lower super output areas (LSOAs) which are typically built from four to six output areas to be as consistent in population size as possible.
- 5.6. England has 32,844 lower super output areas (LSOAs). The Proposed Development falls within two LSOAs Bassetlaw 002B and Bassetlaw 002E. In terms of deprivation, all the LSOAs have been ranked in the English Indices of Deprivation (2019) from 1 (being the most deprived) to 32,844 (being the least deprived).
  - 5.7. Overall, the Bassetlaw OO2B LSOA ranks at 21,177 and when ranked in deciles between 1 and 10, the LSOA is ranked 7. This places it amongst the top 40% least deprived LSOAs in England. Table 5.3 presents full analysis of the domains of deprivation for the LSOA. The highest domain for this LSOA is the barriers to housing and services domain, with a ranking of 9,365 (30% most deprived). The lowest domain is in the education & training domain (23,899), this puts Bassetlaw OO2E in the 30% least deprived LSOAs for this domain.
  - 5.8. Table 5.3 also shows that the Bassetlaw OO2E LSOA ranks at 25,959 and it is ranked at decile 8, placing it amongst the top 30% least deprived LSOAs in England. The highest domain for the LSOA is also the living environment domain, with a ranking of 12,990 (40% most deprived). The lowest domain is also in the in the crime rank (30,480) and this ranking puts Bassetlaw OO2E in the 10% least deprived LSOAs for this domain.

Table 5.3: Domains of deprivation for LSOAs Bassetlaw 002B & 002E

IMD 2019 Domain	Bassetla	aw OO2B	Bassetlaw 002E	
IMD 2019 Domain	Rank	Decile	Rank	Decile
Overall IMD	21,177	7	25,959	8
Income	22,972	7	24,189	8
Employment	18,878	6	23,190	8
Education & Training	23,899	8	19,764	7
Health	20,712	7	22,948	7
Crime	20,838	7	30,480	10
Barriers to Housing and Services	9,365	3	22,518	7
Living Environment	10,979	4	12,990	4

**Source:** Ministry for Housing, Communities & Local Government

#### Gender

5.9. Table 5.4 shows gender as a proportion of the population in Bassetlaw, Nottinghamshire, the East Midlands and England. In Bassetlaw, the proportion of people who identify as female is 50.4% compared to 49.6% who identify as male. This is lower than at all other spatial scales: in England it is 51:49 female to male split.

Table 5.4: Sex at all comparator scales, 2021

Area	All persons	Fe	male	Male	
		Actual	Proportion	Actual	Proportion
Bassetlaw	117,804	59,391	50.4%	58,413	49.6%
Nottinghamshire	824,822	420,034	50.9%	404,788	49.1%
East Midlands	4,880,054	2,477,865	50.8%	2,402,189	49.2%
England	56,490,048	28,833,712	51.0%	27,656,336	49.0%

Source: Census 2021

5.10. Table 5.5 shows gender identity as a proportion of the population in Bassetlaw, Nottinghamshire, the East Midlands and England. In Bassetlaw, there is a higher proportion of people who, in 2021 Census, recorded themselves as having the same gender identity now as at birth (94.3%) compared to the East Midlands region (93.4%) and England (93.5%). Accordingly, the proportion of people who identified themselves as having a different gender from sex registered at birth, and who were trans woman, trans man, or other gender identities is similar across all three spatial scales.

Table 5.5: Gender identity at all comparator scales, 2021

Spatial scale	Gender identity the same as sex registered at birth	Gender identity different from sex registered at birth but no specific identity given	Trans woman	Trans man	All other gender identities	Not answered
Bassetlaw	94.3%	O.1%	0.1%	0.0%	0.1%	5.4%
Nottinghamshire	94.5%	O.1%	O.1%	0.1%	0.1%	5.1%
East Midlands	93.4%	0.2%	O.1%	O.1%	O.1%	6.1%
England	93.5%	0.2%	O.1%	O.1%	O.1%	6.0%

Source: Census 2021

#### **Ethnic Diversity**

5.11. Data on ethnic groups within an area highlights that compared to regional and national comparators, both Bassetlaw and Nottinghamshire have a higher proportion of residents who identify as white. In Bassetlaw this figure represents 96.4% of the population whilst in Nottinghamshire this figure was 93% compared to 85.7% for the East Midlands and 81% for England. Further detail on ethnicity is set out in Table 5.6 below.

Table 5.6: Ethnic Group, 2021

	Bassetlaw	Nottinghamshire	East Midlands	England
White	96.4%	93.0%	85.7%	81.0%
Asian, Asian British or Asian Welsh	1.2%	3.0%	8.0%	9.6%
Black, Black British, Black Welsh, Caribbean or African	0.6%	1.2%	2.7%	4.2%
Mixed or Multiple ethnic groups	1.2%	2.1%	2.4%	3.0%
Other ethnic group	0.5%	0.7%	1.3%	2.2%

Source: ONS

#### **Sexual Orientation**

5.12. As shown in Table 5.7, Bassetlaw has a higher proportion of straight or heterosexual persons (91.4%) when compared to Nottinghamshire (90.0%), the East Midlands (89.8%) and England (89.4%). In Bassetlaw, there is also a lower proportion of gay or lesbian persons (1.1%) and bisexual persons (0.8%) when compared to regional and national comparators.

Table 5.7: Sexual orientation, 2021

	Bassetlaw	Nottinghamshire	East Midlands	England
Straight or Heterosexual	91.4%	90.9%	89.8%	89.4%
Gay or Lesbian	1.1%	1.3%	1.3%	1.5%
Bisexual	0.8%	1.1%	1.3%	1.3%
All other sexual orientations	0.2%	0.2%	0.3%	0.3%
Not answered	6.5%	6.4%	7.4%	7.5%

Source: Census 2021

#### Religious affiliation

5.13. Table 5.8 shows religion as a proportion of the population in Bassetlaw, Nottinghamshire, the East Midlands and England. In Bassetlaw, the highest proportion of the population is Christian (55.3%). This is above the proportion of the population that are Christians in Nottinghamshire (46.3%), the East Midlands (45.4%) and England (46.3%). The proportion of the population in Bassetlaw who are Buddhist, Hindu, Jewish, Muslim, Sikh or other religion is lower when compared to the East Midlands and England.

Table 5.8: Religion as a Proportion of Population, 2021

	Bassetlaw	Nottinghamshire	East Midlands	England
Christian	55.3%	46.3%	45.4%	46.3%
Buddhist	0.2%	0.3%	0.3%	0.5%
Hindu	0.2%	0.6%	2.5%	1.8%
Jewish	0.0%	O.1%	O.1%	0.5%
Muslim	0.6%	1.4%	4.3%	6.7%
Sikh	0.2%	0.5%	1.1%	0.9%
Other religion	0.4%	0.5%	0.5%	0.6%
No religion	37.5%	44.8%	40.0%	36.7%
Religion not stated	5.5%	5.6%	5.9%	6.0%

Source: Census 2021

#### Pregnancy & Maternity

Table 5.9 shows data sourced from the Office for Health Improvement & Disparities displaying the pregnancy profile for Nottinghamshire<sup>29</sup>, the East Midlands and England. Nottinghamshire has the highest under 18 conception rate per 1,000 population (15.1 per 1,000 population) compared to regional (13.2 per 1,000 population) and national (13.1 per 1,000 population) averages. However, Nottinghamshire has the lowest rate of under 18 conceptions leading to abortions (42.8%) when compared regionally (46.2%) and nationally (53.4%). Early access to maternity care in Nottinghamshire (59.0%) is in line with regional and national rates of 70.2% and 63.5% respectively. The rate of multiple births in Nottinghamshire (16.0 per 1,000 population) is higher than regional (14.0) and national (14.6) averages, and stillbirth rates are lowest in Nottinghamshire (3.6 per 1,000 population) when compared regionally (4.1 per 1,000 population) and nationally (4.0 per 1,000 population). See Table 5.9 for further details.

Table 5.9: Pregnancy Profile of Nottinghamshire, the East Midlands, and England

	Year	Nottinghamshire	East Midlands	England
Under 18 conception rate (per 1,000)	2021	15.1	13.2	13.1
Under 18 conceptions leading to abortions	2021	42.8%	46.2%	53.4%
Early access to maternity care	2023/24	59.0%	64.7%	57.8%
Multiple births	2022	16.0	14.0	14.6
Stillbirth rate	2021-23	3.6	4.1	4.0
Neonatal mortality rate	2021-23	3.1	3.3	3.0

Source: GOV.UK, Office for Health Improvement & Disparities

Note: Figures are per 1,000 population

#### **Employment**

5.15. Data from the ONS Business Register and Employment Survey show that as of 2023, there were 52,000 jobs (including self-employment) in Bassetlaw and 330,000 jobs (including self-employment) in Nottinghamshire. Between 2015 and 2023, employment in Bassetlaw increased by 2.0% (see Figure 5.2) which equates to an increase of 1,000 additional jobs. This was below the employment growth seen in Nottinghamshire (8.9% - 27,000 additional jobs), the East Midlands (6.2% - 129,000 additional jobs) and England (8.9% - 2.3 million additional jobs).

<sup>&</sup>lt;sup>29</sup> Mental health & wellbeing data were not available at the Bassetlaw district level. Instead, data for Nottinghamshire at a county level were utilised as this is the smallest spatial scale publicly available via the data source.

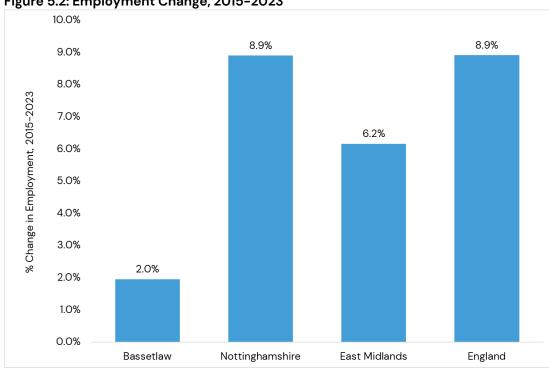


Figure 5.2: Employment Change, 2015-2023

Source: ONS

- 5.16. Looking at employment by sector in Bassetlaw, as of 2024, the largest sector in terms of employment in Bassetlaw was public administration, education and health which accounted for 23.9% of total employment and supported 12,250 jobs. This was also the largest sector in Nottinghamshire supporting 91,000 jobs and accounting for 27.7% of total employment, this was also the case for the East Midlands (26.8%) and England (25.9%).
- 5.17. The construction phase of the Proposed Development will support employment within the construction sector, which supported 4.9% of employment within Bassetlaw in 2023. This is a lower proportion of employment supported by the construction sector compared to Nottinghamshire (5.8%) but is a higher proportion compared to the East Midlands (4.4%) and England (4.8%). See Table 5.10 for more detail.

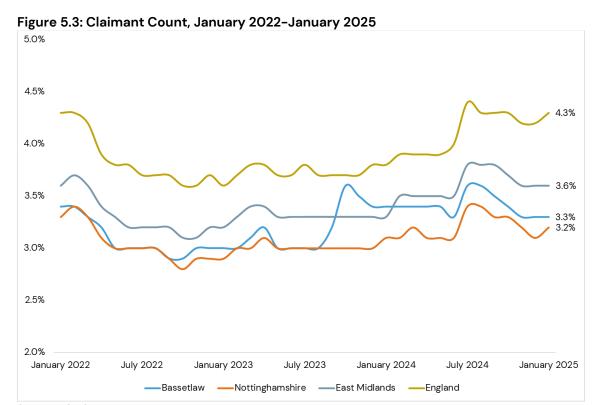
Table 5.10: Employment by Sector, 2023

	Bassetlaw	Nottinghamshire	East Midlands	England
Agriculture, mining, utilities etc.	3.8%	2.4%	3.0%	2.3%
Manufacturing	17.6%	12.2%	11.9%	7.3%
Construction	4.9%	5.8%	4.4%	4.8%
Wholesale & retail	16.1%	14.9%	15.1%	13.7%
Transport & storage	7.8%	6.4%	6.9%	5.1%
Accommodation & food services	6.8%	7.6%	7.0%	7.8%
Information & communication	1.4%	3.0%	2.7%	4.7%
Business, financial & professional services	14.3%	15.8%	18.0%	23.9%
Public admin, education & health	23.9%	27.7%	26.8%	25.9%
Arts, entertainment, recreation & other services	3.4%	4.3%	4.2%	4.6%

Source: ONS, Business Register & Employment Survey

#### **Claimant Count**

- 5.18. The claimant count records the number of people claiming Jobseeker's Allowance plus those who claim Universal Credit and are required to seek work and be available for work.
- 5.19. Figure 5.3 shows the claimant count as a proportion of people aged 16-64 in Bassetlaw, Nottinghamshire, the East Midlands and England for the period January 2022 to January 2025, for all residents aged 16-64.
- 5.20. In January 2022, the claimant count in Bassetlaw was 3.4%, and in January 2025 it was 3.3%. In January 2022, the claimant count in Nottinghamshire was 3.3% and in January 2024 it was 3.2%. The claimant count in Bassetlaw and Nottinghamshire are currently below the rates seen in the East Midlands (3.6%) and England (4.3%).



Source: ONS

### Skills & Qualifications

5.21. 2021 Census data shows the highest level of qualifications held by Bassetlaw residents, expressed as a proportion of the population. As shown in Table 5.11, a higher proportion of Bassetlaw residents have no qualifications (21.6%) compared to Nottinghamshire (19.4%), the East Midlands (19.5%), and England (18.1%). There was also a lower proportion of residents who hold a Level 4 qualification or above in Bassetlaw at 25.5% relative to comparator areas and a higher proportion of apprenticeships at 6.7%.

Table 5.11: Highest Level of Qualification, 2021

	Bassetlaw	Nottinghamshire	East Midlands	England
No qualifications	21.6%	19.4%	19.5%	18.1%
Level 1 and entry level qualifications	10.9%	10.2%	10.4%	9.7%
Level 2 qualifications	14.8%	14.0%	13.9%	13.3%
Apprenticeship	6.7%	6.1%	6.0%	5.3%
Level 3 qualifications	17.4%	17.8%	18.3%	16.9%
Level 4 qualifications or above	25.5%	29.9%	29.1%	33.9%
Other qualifications	3.1%	2.6%	2.8%	2.8%

Source: ONS

### **Health Profile of Local Population**

- 5.22. Table 5.12 shows the general health status of residents across the various geographies in 2021. The proportion of Bassetlaw's population who have very good health is 43.9%, which is lower than Nottinghamshire (45.6%), the East Midlands (46.2%) and England (48.5%).
- 5.23. Regarding the proportion of the population with good health, Bassetlaw (34.8%) falls in line with Nottinghamshire (34.3%), the East Midlands (34.8%) and England (33.7%). Regarding the proportion of the population with fair health, Bassetlaw (15.2%) fares better than Nottinghamshire (14.3%), the East Midlands (13.6%) and England (12.7%). Bassetlaw has a higher proportion of the population with bad health (4.8%) when compared to Nottinghamshire (4.5%), the East Midlands (4.2%) and England (4.0%). The proportion of Bassetlaw's population with very bad health (1.4%) is also higher than Nottinghamshire (1.3%), the East Midlands (1.2%) and England (1.2%).

Table 5.12: General Health, 2021

	Bassetlaw	Nottinghamshire	East Midlands	England
Very good health	43.9%	45.6%	46.2%	48.5%
Good health	34.8%	34.3%	34.8%	33.7%
Fair health	15.2%	14.3%	13.6%	12.7%
Bad health	4.8%	4.5%	4.2%	4.0%
Very bad health	1.4%	1.3%	1.2%	1.2%

Source: Census 2021

- 5.24. When looking at health profiles, the health of Bassetlaw is similar to Nottinghamshire, the East Midlands and England. Male life expectancy in Bassetlaw is lower than comparator areas at 78.8 whereas female life expectancy in Bassetlaw is higher than comparator areas at 83.7.
- 5.25. The under 75 mortality rates from all causes in Bassetlaw (350.3 per 100,000 population for 2023) is higher Nottinghamshire and England (345.1 per 100,000 in Nottinghamshire and 341.6 per 100,000 at national level) but lower than the East Midlands. The under 75 mortality rates from cardiovascular diseases in Bassetlaw is 80.7 per 100,000, which is similar to 81.3 in Nottinghamshire, 80.3 in the East Midlands and 77.4 in England.
- 5.26. The suicide rate in Bassetlaw is higher than all comparators at a rate of 14.7 per 100,000 for 2021–23, compared to 10.6 in Nottinghamshire, 11.3 in the East Midlands and 10.7 in England. The rate of emergency hospital admissions as a result of intentional self-harm in Bassetlaw is lower than its regional and national comparators at a rate of 103.3 per 100,000 for 2023/24, compared to rates of 128.1 at regional level and 117.0 at national level, whereas it is in line with Nottinghamshire (103.5 per 100,000).

5.27. The percentage of physically active adults in Bassetlaw (66.0%) is slightly lower than Nottinghamshire (67.8%), the East Midlands (66.5%) and England (67.1%). However, the percentage of adults classified as overweight or obese was also lower than Nottinghamshire and the East Midlands at 64.8% compared to 67.1% and 66.1% respectively. England saw the lowest rate of obesity at 64.0%. See Table 5.13 for more detail.

Table 5.13: Health Profile of Bassetlaw

	Bassetlaw	Nottinghamshire	East Midlands	England	Year
Life expectancy at birth (male)	78.8	79.1	78.9	79.3	2023 (1-year range)
Life expectancy at birth (female)	83.7	83.0	82.7	83.2	2023 (1-year range)
Under 75 mortality rate from all causes	350.3	345.1	357.3	341.6	2023
Under 75 mortality rate from all cardiovascular diseases	80.7	81.3	80.3	77.4	2023
Suicide rate	14.7	10.6	11.3	10.7	2021-23
Rate of intentional self-harm	103.3	103.5	128.1	117.0	2023/24
% of overweight/obese adults	64.8%	67.1%	66.1%	64.0%	2022/23
% of physically active adults	66.0%	67.8%	66.5%	67.1%	2022/23
Rate of violent crime	34.5	32.7	28.8	34.2	2021/22-23/24

Source: Local Authority Health Profiles. Gov.uk & Office for Health Improvement & Disparities

Note: Figures are per 100,000 population

## **Mental Health Profile**

- 5.28. Table 5.14 presents the mental health and wellbeing profile for Bassetlaw, Nottinghamshire, the East Midlands, and England. Although data for Bassetlaw is limited, it is included where available. Where data is available, the mental health of Bassetlaw is worse than that of comparator areas. Overall, the mental health of Nottinghamshire's population is slightly better than that of the East Midlands and England.
- 5.29. As of 2022/23 the percentage of school pupils with social, emotional and mental health needs in Nottinghamshire (2.7%) was lower than the averages seen in both the East Midlands (3.2%) and England (3.3%).
- 5.30. The estimated prevalence of common mental disorders in Bassetlaw's population aged 16 and over was 17.7% as of 2017. This is above the averages seen in the Nottinghamshire (16.2%), the East Midlands (16.3%) and in England (16.9%). For those aged 65 and over, Bassetlaw also had a higher prevalence of common mental disorders (11.3%) when compared to Nottinghamshire (10.2%), the East Midlands (10.0%) and in England (10.2%).
- 5.31. As of 2019–2020, the number of new referrals to secondary mental health services (all ages) in Nottinghamshire was 6,200 per 100,000 population. This was lower than the number of referrals in both the East Midlands (7,101 per 100,000 population) and England (6,897 per 100,000 population).

5.32. As of 2021–23, the female suicide rate in Nottinghamshire was 4.7, which was lower than the regional (5.6) and national (5.4) rates. The female suicide rate in Bassetlaw cannot be calculated as the number of cases is too small. The male suicide rate in Bassetlaw was 26.5 over the same timeframe. This was above the rate in Nottinghamshire (16.9), the East Midlands (17.4), but below the rate in England (16.4). Further detail can be found in Table 5.14

Table 5.14: Mental Health & Wellbeing Profile for Bassetlaw, Nottinghamshire, the East Midlands and England

Variable	Bassetlaw	Nottinghamshire	East Midlands	England	Year
Percentage of school pupils with social, emotional and mental health needs	*	2.7%	3.2%	3.3%	2022/23
Estimated prevalence of common mental disorders (Percentage of population aged 16 and over)	17.7%	16.2%	16.9%	16.9%	2017
Estimated prevalence of common mental disorders (Percentage of population aged 65 and over)	11.3%	10.2%	10.2%	10.2%	2017
Fuel Poverty	15.7%	14.3%	15.1%	13.1%	2022
Self-reported wellbeing - percentage of respondents with a low happiness score	8.6%	8.8%	9.3%	8.9%	2022/23
Self-reported wellbeing - percentage of respondents with a low satisfaction score	7.8%	5.9%	6.5%	5.6%	2022/23
Percentage of adults who feel lonely often or always	*	5.7%	7.1%	6.8%	2021/22 - 2022/23
New referrals to secondary mental health services, per 100,000 (All Ages)	*	6,200	7,101	6,897	2019/20
Suicide rate (Female, 10+ years)	**	4.7	5.6	5.4	2021-23
Suicide rate (Male, 10+ years)	26.5	16.9	17.4	16.4	2021-23

Source: Public Health England

Note: Figures are per 100,000 population

<sup>\*</sup> Data are unavailable at Local Authority Scale

<sup>\*\*</sup> Value cannot be calculated as number of cases is too small

#### Crime

- 5.33. According to data from LG Inform<sup>30</sup>, Bassetlaw saw a rate of total recorded offences per 1,000 population in the 12-months ending Q3 2024 of 76.8. This is below the regional average of 79.1 per 1,000 population, and represents a decrease of 9.5% since Q3 2023, a larger decrease than the regional decrease of 5.8%.
- 5.34. In Bassetlaw, the rate of victim-based crime was 66.2 per 1,000 in Q3 2024, a decrease of 9.2% since Q3 2023. This was equal to the rate in the East Midlands, but a larger decrease than the regional decrease of 5.3%.
- 5.35. The highest number of crimes in Bassetlaw were shoplifting offences with a rate of 12.2 per 1,000 in Q3 2024. This was above the shoplifting rate per 1,000 in the East Midlands of 8.3.

## **Physical Activity**

- 5.36. Data published by Sport England in its Active Lives Survey for levels of physical activities at a county scale is available for children ages 5–16 and for adults aged 16+. The most recent data set for children is for the academic year 2023 24 (Figure 5.4) and for adults the most recent is for November 2022 November 2023 (Figure 5.5). Data is not available for the Bassetlaw District, so is presented for Nottinghamshire, East Midlands, and England.
- 5.37. The data shows that the proportion of children in Nottinghamshire who are active (47.0%) is in line with regional (45.7%) and national (47.8%) averages. The proportion of less active children in Nottinghamshire (28.9%) is also in line with the proportion classed as less active in the East Midlands (30.1%) and England (29.6%). See Figure 5.4 for further detail.

<sup>&</sup>lt;sup>30</sup> LG Inform. Available at: <a href="https://lginform.local.gov.uk/reports/view/lga-research/lga-research-report-police-recorded-crime?mod-area=E07000134&mod-group=E12000004&mod-type=area">https://lginform.local.gov.uk/reports/view/lga-research/lga-research-report-police-recorded-crime?mod-area=E07000134&mod-group=E12000004&mod-type=area</a> (Accessed: 18/03/2025).

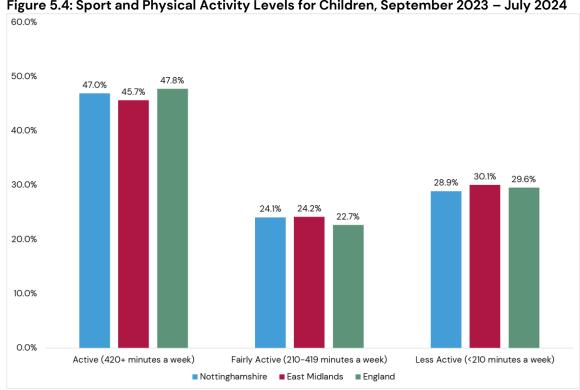


Figure 5.4: Sport and Physical Activity Levels for Children, September 2023 – July 2024

Source: Sport England, Active Lives Survey

5.38. The data shows that 63.6% of adults in Nottinghamshire were classed as active meaning they engaged in an average of 150 minutes or more a day of physical activity. This was in line with the proportion of active adults in the East Midlands (62.2%) and England (63.4%). In Nottinghamshire there were 25.9% of adults classed as inactive meaning they engaged in less than 30 minutes of physical activity a week. This was in line with the rate of inactive adults in the East Midlands (26.7%) and England (25.7%). See Figure 5.5 for further detail.

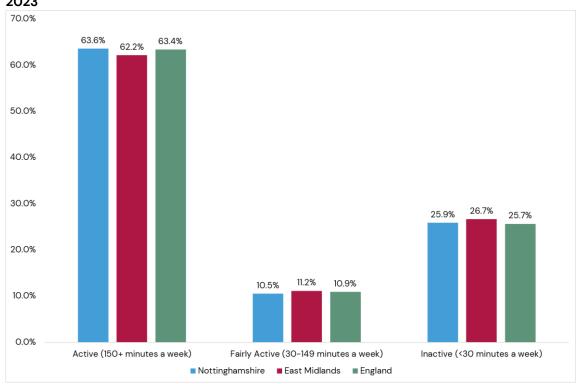


Figure 5.5: Sport and Physical Activity Levels for Adults, November 2022 – November 2023

Source: Sport England, Active Lives Survey

#### **Open Space and Recreation**

- 5.39. In terms of open spaces, there are 7 types within two miles of the Site, listed in Table 5.15. There is 12.5 hectares of cemetery open space and a total of 10.8 hectares of playing field within a two-mile radius of the Proposed Development. All areas of open space within two miles of the Site are shown in Figure 5.6.
- 5.40. A series of Public Rights of Way (PRoW) are located within the Order limits, including the long-distance path known as the Trent Valley Way which travels through the Site from east to west through the southern edge of the settlement of Sturton le Steeple. In addition, there are a number of other located within 2 miles of the Site. PRoW located within the Order Limits and wider 2-mile buffer are illustrated on Figure 5.7.

Table 5.15: Open Space within 2 miles of the Site

Open Space Type	Area (ha)
Bowling Green	0.4
Cemetery	12.5
Other Sports Facility	0.027
Play Space	0.6
Playing Field	10.8
Religious Grounds	5.5
Tennis Court	0.3

Source: Google Maps

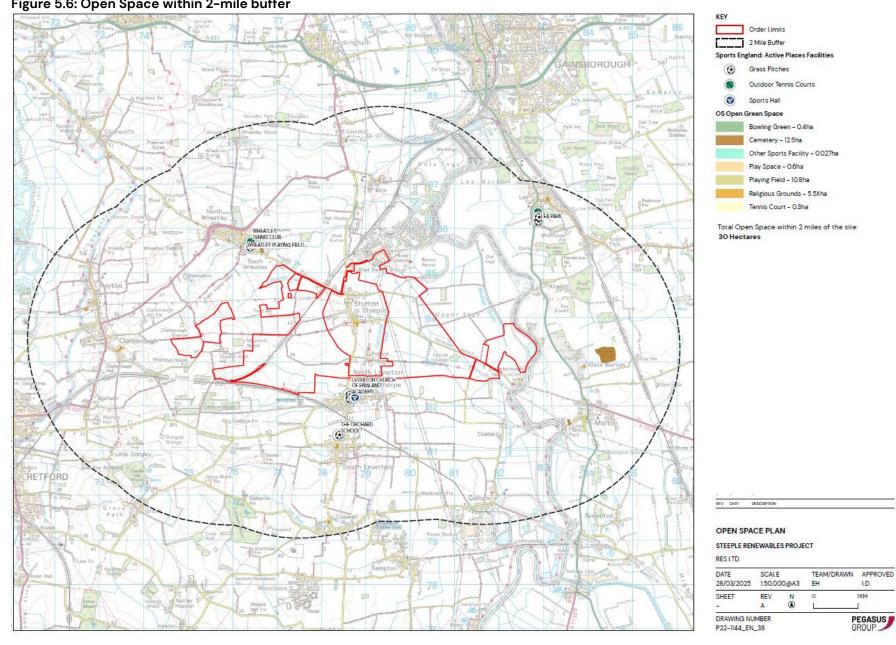


Figure 5.6: Open Space within 2-mile buffer

Order Limits 2 Mile Buffer - - Public Rights of Way REV DATE DESCRIPTION PUBLIC RIGHTS OF WAY PLAN STEEPLE RENEWABLES PROJECT RESILTD. TEAM/DRAWN APPROVED SCALE 28/03/2025 1:50,000@A3 REV DRAWING NUMBER P22-1144\_EN\_40

Figure 5.7: Public Rights of Way within 2-mile buffer

# **Vulnerable Groups**

5.41. In assessing the proximity of vulnerable groups to the Site, six schools and four care homes have been identified within 2 miles of the Site. Additionally, older persons, youth, and adolescents live in the local area. More details are provided in Table 5.16, and these facilities are illustrated in Figure 5.8.

Table 5.16: Facilities for vulnerable groups within 2-mile buffer

Facility	Distance from Site (miles)	Address
Schools		
Leverton CE Academy	0.27	Main St, Retford DN22 OAD
Sturton CE Primary	0.36	Church St, Retford DN22 9HQ
North Wheatley Primary	0.56	Sturton Rd, South Wheatley, Retford DN22 9DH
Clarborough Primary School	0.96	Hillview Cres, Retford DN22 9JZ
The Marton Academy	1.21	Stow Park Rd, Marton, Gainsborough DN21 5AG
Frances Olive Anderson Church of England (Aided) Primary School	1.78	The Grove, Lea, Gainsborough DN21 5EP
Older person accommodation:		
Swales Close Anchor Retirement Home	0.17	North Road, Retford DN22 7YN
The Beeches	0.73	Retford Rd, South Leverton, Retford DN22 OBY
The Old Vicarage Residential Home	0.74	Retford Rd, Retford DN22 OBY
Voyage Care: Redbank House	0.93	Town St, South Leverton, Retford DN22 OBF

Order Limits 2 Mile Buffer Older Person Accommodation AINSBOROUGH Primary Schools ANCHOR RETIREMENT HOME THE BEECHES REV DATE DESCRIPTION **EDUCATION AND OLDER PERSON** ACCOMMODATION STEEPLE RENEWABLES PROJECT RES LTD. DATE SCALE TEAM/DRAWN APPROVED 28/03/2025 1:50,000@A3 EH LD SHEET 1KM REV DRAWING NUMBER PEGASUS GROUP P22-1144\_EN\_39

Figure 5.8: Vulnerable receptors (Children and Older Persons) within 2-mile buffer

# Summary

- 5.42. A summary of key baseline characteristics is as follows:
  - Ageing population: The population growth in Bassetlaw has been primarily driven by an increase in the number of residents aged 65 and over. This trend is expected to continue, with the 65+ age group projected to grow by 43.9% by 2038.
  - Lower deprivation: the LSOAs are among the least deprived in England, ranking in the top 30-40% least deprived. The main areas of concern are barriers to housing and services and the living environment.
  - **Diversity**: Overall, Bassetlaw has a less diverse population than regional and national averages. The district has a lower proportion of all non-white ethnic groups when compared to regional and national averages and also has a lower proportion of gay, lesbian, and bisexual persons compared to the East Midlands and England.
  - Pregnancy & maternity: Nottinghamshire has the highest under-18 conception rate but the lowest rate of under-18 conceptions leading to abortions compared to regional and national averages. Early access to maternity care is consistent with regional and national rates.
  - **Employment**: Both Bassetlaw and Nottinghamshire have experienced an increase in job numbers since 2015, however the rate of employment growth in Bassetlaw is falling below regional and national rates. The claimant count in Bassetlaw remains below regional and national rates.
  - Skills & qualifications: A higher proportion of Bassetlaw residents have no qualifications compared to regional and national averages. There is a lower proportion of residents with Level 4 qualifications or above, indicating a need for improvements in educational opportunities.
  - Health profiles: The general health statistics of Bassetlaw residents show that a lower
    proportion have very good health compared to regional and national averages, while a
    higher proportion experience bad or very bad health. The health profile of Bassetlaw is
    generally similar to Nottinghamshire, the East Midlands, and England. However,
    Bassetlaw has higher under-75 mortality rates from all causes and cardiovascular
    diseases and a higher suicide rate.
  - Mental Health: The mental health of Nottinghamshire's population is generally better
    than the East Midlands and England, with lower percentages of school pupils having
    social, emotional, and mental health needs along with fewer new referrals to secondary
    mental health services and lower prevalence of common mental disorders.
  - **Crime**: The total recorded offence rate in Bassetlaw has decreased, with shoplifting being the most common crime. The rate of victim-based crime is equal to the regional rate.
  - Physical Activity and Open Space: Levels of physical activity within Nottinghamshire
    are in line with regional and national comparators for both children and adults. In terms
    of open spaces, there are 7 types within two miles of the Site, including 10.8 hectares
    of playing field space.

## Vulnerable / disadvantaged groups

5.43. The relevant vulnerable / disadvantaged groups relevant to this Proposed Development and surrounding study area are identified having considered Appendix 2 of WHIASU: A Practical Guide (July 2020), as well as considering the baseline information collated in this section of the HIA. These groups, shown in Table 5.17, are identified as having greatest risk of experiencing health inequalities and are likely to be more sensitive to changes to health and well-being determinants. These groups are considered sensitive receptors in the impact assessment, alongside those in the general population who are either existing and/or future residents or users of amenities within the study area who may be affected by the changes (see Section 7 for Impact Assessment).

Table 5.17: Vulnerable / disadvantaged groups

Table 5.17: Vulnerable / disadvantaged groups		
Vulnerable / Disadvantaged Group	Explanation	
Children and adolescents (aged O-15 years)	The number of children aged O-15 years makes up 17.6% of the current population of Bassetlaw (21,496 out of 122,286) as of 2023. Those aged O-15 are projected to increase by 4.3% (886) up to 2038. This is higher than Nottinghamshire County, which is expected to rise by 2.8%. At the regional scale, this age group is projected to increase by 1.3% but nationally is projected to decrease by 3.5%.	
	In addition to children and adolescents living locally, there are three no. primary schools within close proximity of the Order Limits, namely Leverton CE Academy, Sturton CE Primary, North Wheatley Primary, Clarborough Primary School, The Marton Academy, Frances Olive Anderson Church of England Primary School.	
	Children and adolescents are often more susceptible to potential effects of construction activities. In addition, children and adolescents could be vulnerable to changes associated with long term permanent effects as a result of the Proposed Development's operation.	
Older persons (aged 65 and over)	The number of older people aged 65 years plus makes up 22.3% of the current population of Bassetlaw (27,217 out of 122,286) as of 2023. Those aged 65 and over in Bassetlaw are expected to increase at the fastest rate of all age groups with growth of 43.9% between 2018 and 2038 representing an absolute increase of 11,210. This rate is higher than that of the county, regional and national rates (40.5%, 43.1%, 40.8% respectively).	
	In addition to older persons living locally, there are a number of dedicated older person accommodation within close proximity of the Order Limits, namely Swales Close Anchor Retirement Home, The Old Vicarage Residential Home, Voyage Care: Redbank House and The Beeches.	
	Older persons are often more susceptible to potential effects of construction activities. In addition, older persons could be vulnerable to changes associated with long term permanent effects as a result of the Proposed Development's operation.	

Vulnerable / Disadvantaged	Explanation
Group	
People on low incomes and those who are unemployed	The claimant count is identified as being 3.3% in January 2025 in Bassetlaw, which is below the current regional (3.6%) and national (4.3%) rates. It is further noted that there was a 2.0% increase in employment (1,000 additional jobs) between 2015 and 2023 in Bassetlaw, compared to an increase of 6.2% in the East Midlands region and an increase of 8.9% in England. While it is positive in the sense that the LPA has a lower claimant count, it has also experienced weak labour market growth and therefore it is important to help people who are out of work get back into the labour market. Also, there is a higher proportion of Bassetlaw residents with no qualifications compared to regional and national averages, as well as a lower proportion of residents with Level 4 qualifications or above, indicating a need for improvements in educational opportunities.
	Any person who is unemployed or who is on low incomes is considered vulnerable in this locality. Employment and incomes are known as a protective factor in terms of long-term health. This group may be more susceptible to health issues and particular consideration will be needed to maximise opportunities for employment and training.
Pregnancy and maternal matters	Nottinghamshire <sup>31</sup> has the highest rate of under 18 conceptions (15.1 per 1,000 population) and the highest rate of women who have had multiple births (16.0) when compared to regional and national comparators.
	Pregnancy and maternal matters can impact women in a variety of ways. Construction activities must ensure best practice measures are applied to minimise any potential effect on physical and mental wellbeing for women who are pregnant and/or on maternity.

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<sup>&</sup>lt;sup>31</sup> Pregnancy and maternity data were not available at Bassetlaw district level. Instead, data for Nottinghamshire county level were utilised as this is the smallest spatial scale publicly available via the data source.

# 6. CONSULTATION

## Overview

- 6.1. The Applicant has carried out consultation and engagement iteratively, seeking feedback on the proposals at different stages of design development and environmental assessment from a range of stakeholders (PINS, the local community and a range of statutory and non-statutory consultees). This has sought to ensure that feedback of relevant statutory consultees and the local community has been considered and reflected in the Proposed Development.
- 6.2. The consultation process is described in the Consultation Report [ENO10163/APP/5.1] that accompanies the DCO application. That document sets out the consultation activities undertaken, including with the EIA 'consultation bodies' (as defined in Regulation 3 of the EIA Regulations), the responses received, and explains where each comment has been addressed in the Application, or regard has been had to the comments by the Applicant.

# Statutory Consultation

- 6.3. The Applicant undertook statutory consultations with regard to the Proposed Development in accordance with the requirements of the Planning Act 2008 and the EIA Regulations as follows:
  - Consultation as required by Section 42 of the Planning Act 2008 with statutory consultees including, relevant statutory bodies, local authorities, landowners and other interested parties on the Preliminary Environmental Information Report (PEIR).
  - Consultation as required by Sections 47 and 48 of the Planning Act 2008 with the local community and the wider public (with a copy of the section 48 notice sent to "consultation bodies").
  - Consultation as required by Sections 49 of the Planning Act 2008 to take account
    of any relevant responses received to the consultation and publicity that is
    required by Sections 42, 47 and 48.
- 6.4. The requirement for health and wellbeing to be considered, and a HIA to be prepared and submitted with the application, was raised through comments made by Nottinghamshire County Council Public Health Department as part of Section 42 Statutory Consultation Response. As such, this HIA is prepared and submitted with the DCO application. All comments raised through Section 42 Statutory Consultation and relevant to health and wellbeing are presented in Table 6.1. This summary includes how the Applicant has addressed each comment.
- 6.5. In addition, Table 6.2 presents a summary of the comments raised by the local community and wider public through Section 47 and 48 Consultation. Again, this summary includes how the Applicant has addressed each comment.

Table 6.1: Section 42 Consultation – Statutory Consultee Comments – Health and Wellbeing

Statutory Consultee	Comment	Applicant Response
Nottinghamshire County Council – Public Health	Public Health note that any further specific health impacts arising from the proposed development, either negative or positive, on human health from the construction of the proposed Solar Farm are being considered as part of the scope of the PEIR. The Nottinghamshire Net–Zero framework and policies have been referenced, and the project's contribution to achieving these Net–Zero goals has been outlined. While the project acknowledges some impact on human health in various sections, it does not explicitly detail these impacts.	The Applicant has prepared and submitted a HIA is with the DCO application [ENO10163/APP/7.2]. Further detail regarding the methodology, accounting for the referenced Spatial Planning and Health Framework published by Nottinghamshire County Council is presented in Section 4 of this HIA.
	NCC request that a Health Impact Assessment (HIA) be undertaken for this project notts-spatial-planning-health-framework.pdf It would assist in the identification of any potential impacts on human health and assist the applicant in understanding the importance of HIA and its 12 indicators.	
NL PC	Construction activities have the potential to result in the release of chemicals to the ground which could percolate into underlying aquifers. This is significant despite the report trying to say there will be few consequences. This is prime agricultural land with affected water courses.  The report states that effects rising from the construction will be temporary which directly conflicts with other elements of the report as seen above.	The Applicant notes the comment and agrees there is potential for the release of chemicals to the ground during construction. However, management measures will be complied as per the Outline Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4] to ensure best practice is followed to minimise the risk of release of pollution or sediment. Chapter 8: Hydrology, Hydrogeology and Flood Risk and Drainage [ENO10163/APP/6.2.8] of the ES fully details the assessment. Impacts on hydrogeology are anticipated to be not significant.
	The eastern part of the site falls within a drinking water protected area. What will be done to ensure the drinking water is protected? The report states that there remains potential for the release of hazardous materials which could impact local watercourses. It continues to say that the effect could be temporary, direct and of local importance. What does that actually mean? We need firm guarantees.  The report states that there will be negligible effects and then goes on to say that there is potential for temporary after image for pilots flying over the sites. This is serious	Protection of drinking water and surface water is assessed within Chapter 8: Hydrology, Hydrogeology and Flood Risk and Drainage [ENO10163/APP/6.2.8]. Impacts on drainage and flood risk discussed within Surface Water Drainage Strategy [ENO10163/APP/6.3.8] and Flood Risk Assessment [ENO10163/APP/6.3.8].  Glint and glare impacts upon aerodromes (licensed, unlicensed and military) within 15km of the Proposed Development have been considered. The

Statutory Consultee	Comment	Applicant Response
	and life threatening for those in the aircraft and ultimately those on the ground. We have the RAF from RAF Waddington, RAF Coningsby and aircraft from Gamston Airport, Sandtoft Airport, and the potential reopening of Doncaster Sheffield Airport. There needs to be further significant research undertaken before we can sign off on this.	military aerodromes mentioned are greater than 24km and 48km from the Proposed Development. The assessment of any aviation effects for developments over 20km is not a usual requirement and therefore no significant impact is predicted upon these RAF aerodromes. For two unlicensed aerodromes, the glare intensity is categorised as having 'potential for temporary after-image'. Glare within this category requires assessment in context to the aerodromes operations. The assessment had concluded that the instances of yellow glare could be operationally accommodated for, and that the Proposed Development will not impact the operations at these two aerodromes.  No significant impacts are predicted upon the remaining nine aerodromes assessed, including the potential reopening of Doncaster Sheffield Airport.
Natural England	The site is crossed in various location by Public Rights of Way & Natural England welcome the intention to provide a Public Rights of Way Management Plan.  The provision of additional footpaths (shown in Figure 6.7) is also welcomed, to further increase the accessibility of the PRoW network in the area.  Review of the Accessible Natural Greenspace profile and Accessible Green Infrastructure layers on the NE Green Infrastructure mapping tool show that despite its rural nature, the development site and surrounding areas have poor greenspace provision and accessible Green Infrastructure. The establishment of permissive footpaths and accessible enhancement areas are thus increasingly valuable in improving the Green Infrastructure provision for the surrounding local communities. As a result, NE would recommend a focus on ensuring local communities are able to access the PRoW network in and around the site.	The Applicant has had due consideration of the potential impacts on accessibility for relevant target groups during the construction, operational and decommissioning phases of the Proposed Development. Further detail is presented in Section 7 of this HIA.  The provision of additional footpaths is provided in the form of two new permissive paths are proposed. These will connect footpath BW9 to footpath BW5 in the eastern half of the Site and footpath FP41 to footpath FP24 in the western half of the Site. These paths will operate during the life of the Proposed Development and will comprise a short mown corridor and/or wooden board walk contained by 4–5m deer fencing and hedgerows, as required. The permissive paths are located within the spatial parameters of Works No.9 area, as illustrated within Works Plans [ENO10163/APP/2.2].

Statutory Consultee	Comment	Applicant Response
		In summary, as outlined in the Planning Statement [ENO10163/APP/7.1], temporary closures of existing PRoW within the Order Limits are not anticipated. However, in the unlikely event this is necessary for health and safety purposes, temporary closures will be limited to the minimum duration required to ensure continued connectivity. The Outline PRoW Management Plan will set out how diversions will be managed if they are absolutely necessary.
HSE	Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the Planning Inspectorate's Advice Note 11 Annex G - Nationally Significant Infrastructure Projects - Advice Note Eleven, Annex G: The Health and Safety Executive - GOV.UK (www.gov.uk). This document includes a section "Risk Assessments" describing the applicable legislation containing the requirement for risk assessment and the role of the HSE.	The Applicant confirms the design of the Proposed Development, and its' main components have been sited carefully to avoid impacting West Burton A Power Station. The design of the Proposed Development is in accordance with relevant Health and Safety Legislation, and the health and safety of workers in the construction, operation and decommissioning stages of the Proposed Development has been assessed in the Major Accidents and Disasters section of Chapter 17: Miscellaneous Issues [ENO10163/APP/76.2.17].
	Within the PEIR Chapter 17: Miscellaneous Issues Table 17.1: Consultation responses, in response to HSE comment within the EIA Scoping Consultation the applicant has responded "Details relating to consultation with West Burton A Power Station, and any future assessment (if required) will be set out within the subsequent ES." Within the current PEIR Section 17.7 Major Accidents and Disasters there is some consideration of events occurring from, or impacting, the development. HSE would advise these matters are considered further in line with Advice Note 11 Annex G taking account of the following: "it may be beneficial for applicants to undertake a risk assessment as early as possible to satisfy themselves that their design and operation will meet the requirements of relevant health and safety legislation as	

Statutory Consultee	Comment	Applicant Response
	design of the Proposed Development progresses." Note, that there are no requirements for any risk assessments submitted to and approved by the relevant planning authority to also be considered by HSE.	
HSA – Environmental Public Health	We have assessed the submitted documentation and wish to make the following comments.	Noted and ES Chapter 13: Transport and Access [ENO10163/APP/6.2.13] confirms this information.
	The applicant references several sections of local roads which are included in the development area (Wheatley Road, Station Road, Gainsborough Road and Wood Lane in the north-western portion of the Site and Littleborough Road and Common Lane in the eastern portion of the Site). The applicant should confirm whether there are any residential properties associated with these roads in the forthcoming Environmental Statement (ES).  The current submission does not consider in detail any risks or impacts that might arise as a result of accidents such as fires. The development will incorporate lithium-ion batteries to store the energy captured. It is recognised that there is a risk of spontaneous ignition with these which could lead to a range of pollutants being emitted with the potential for adverse human health effects. In the event of a fire, a mixture of substances would be released into the environment which could impact health. Given the proximity of the development to residential properties it would be useful to give some consideration to what products of combustion could be released from the site infrastructure during a major fire and any other potential emissions from the battery storage units and how these accidents could affect people's health.  Recommendation  We recommend that accidents and fires which could cause an uncontrolled release to the environment should be	
	It is acknowledged that the Phase 1 GeoEnvironmental Assessment concluded a low risk of contamination in most	

Statutory Consultee	Comment	Applicant Response
	areas with the potential exception of land in the proposed Battery Energy Storage System (BESS) area. Suitable details should be provided in the Construction Environmental Management Plan (CEMP) as to how any potential exposure pathways to sensitive receptors will be mitigated should any of the contaminants identified in the report be encountered.	
Canal and River Trust	The Planning Inspectorate Scoping Opinion advises that the proposed assessment area should include river users on the River Trent to ascertain whether the potential impact of glint or glare may give rise to a Likely Significant Effect (LSE). The Scoping Opinion highlights the comments made by the Canal & River Trust (set out in Appendix 2 of the Scoping Report) on this matter.  The PEIR discusses potential impacts on public rights of way and waterways (16.3.32) but only appears to consider waterway impacts in the context of impacts on pedestrians walking alongside waterways: "significant effects from glint and glare are not possible upon pedestrians/observers along PRoWs and waterways." The PEIR does not go on to consider potential impacts on boat navigation, which is particularly important as this part of the River Trent is a commercial waterway and is used by larger freight-carrying vessels as well as leisure craft. Our earlier advice in response to the Scoping Opinion request referred to potential effects on river users, by which we primarily meant river traffic rather than pedestrians walking alongside the river.  We consider that it is reasonable to expect that the Glint and Glare Assessment should specifically consider the	The PRoW and waterways have been considered separately, with PRoW pertaining to pedestrians walking, and waterways pertaining to boat navigation and river traffic. The Proposed Development would not give rise to LSE's due to the baseline conditions, the separation distance of 900m between the location of solar panels and that the reflection intensity is similar for solar panels and still water. This is further mitigated by the proposed landscaping plan. No significant impact is predicted upon PRoW (pedestrians walking) and waterways (boat navigation and river traffic).
	and Glare Assessment should specifically consider the potential effect on vessels navigating along the river in order to determine whether the proposed development would give rise to LSEs and, if so, identify how they are to be mitigated.	

Table 6.2: Section 47 and 48 Consultation - Community Comments - Health and Wellbeing

Comment	Applicant Response			
Statement that the Proposed Development will impact quality of life	The Applicant has considered those factors associated with impact on quality of life within a number of the six overarching determinants of health through the WHIASU approach, including 'Lifestyles', 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Access and quality of services'. See Tables 7.1 and 7.2 in Section 7 of the Health Impact Assessment: Impacts of the Proposed Development for further information regarding the potential impacts on the quality of life of relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. In construction, considerations include potential change to livelihoods, maintenance of PRoW, sense of pride, risk of accidents, and environmental changes. The most severe impact is identified as moderate adverse associated with children, older people, pregnancy and maternal group and existing residents and users. However, best practice construction activities will be implemented and secured by a series of appropriate management plans. During the operational phase, it is acknowledged that the change in land use, landscape, visual and recreational amenity impacts could have an indirect effect on the mental health of some receptors. Nevertheless, the mitigation proposed will reduce the physical impacts as far as possible over time and, as such, should contribute to alleviating any indirect mental health impacts. A number of management plans are proposed to minimise any potential for			
Concern regarding health risks associated with living near solar panels	The Applicant has considered those factors associated with living in proximity to solar panels once the Proposed Development is completed within each of the six overarching determinants of health through the WHIASU approach. See Table 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups during the operational phase. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. Overall, physical health risks associated with living near solar panels is negligible impact, albeit the potential for an indirect effect on the mental health of some receptors as a result in change in land use, landscape, visual and recreational amenity impacts. A number of management plans are proposed to minimise any potential for negative impacts			
Concern regarding health risks associated with living near BESS	The Applicant has considered those factors associated with living in proximity to BESS once the Proposed Development is completed within each of the six overarching determinants of health through the WHIASU approach. See Table 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups during			

Comment	Applicant Response
	the operational phase. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. Overall, physical health risks associated with living near solar panels is negligible impact, albeit the potential for an indirect effect on the mental health of some receptors as a result in change in land use, landscape, visual and recreational amenity impacts. A number of management plans are proposed to minimise any potential for negative impacts.
Concern regarding health impacts associated with electric	The Applicant has considered those factors associated with electric sources on site, including risk of fire, within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', and 'Living / environmental conditions affecting health'. See Tables 7.1 and 7.2 in Section 7: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of this HIA. There are not expected to be any negative health impacts associated with electricity generation (including potential for fire, risks associated with flooding) of the Proposed Development.
Concern regarding health risks associated with lorries	The Applicant has considered those factors associated with HGVs accessing the Site during the construction and decommissioning phases within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Macro-economic, environmental and sustainability factors'. See Table 7.1 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. There are health risks which may arise due to HGVs affecting air quality during the construction and decommissioning phases, however, ES Chapter 14: Air Quality [ENO10163/APP/6.2.14] outlines that the peak traffic flows will be present on the road network for a short period of time and any effect will be transient, as such the air quality effect is considered insignificant. This means that the health risks associated with lorries will be minimal.
Concern regarding impacts on mental health	The Applicant has considered impacts on mental health, both direct and indirect, as a result of the Proposed Development within each of the six determinants of health through the WHIASU approach. See Table 7.1 and Table 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further

Comment	Applicant Response			
	information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. In construction, considerations include potential change to livelihoods, maintenance of PRoW, sense of pride, risk of accidents, and environmental changes. The most severe impact is identified as moderate adverse associated with children, older people, pregnancy and maternal group and existing residents and users. However, best practice construction activities will be implemented and secured by a series of appropriate management plans. Once operational, it is acknowledged that the change in land use, landscape, visual and recreational amenity impacts could have an indirect effect on the mental health of some receptors. Nevertheless, the mitigation proposed will reduce the physical environmental impacts as far as possible over time and, as such, should contribute to alleviating any indirect mental health impacts. A number of management plans are proposed to minimise any potential for negative impacts.			
Concern regarding residents' wellbeing	The Applicant has considered those factors associated with impact wellbeing within a number of the six overarching determinants of health through the WHIASU approach, including 'Lifestyles', 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Access and quality of services'. See Tables 7.1 and 7.2 in Section 7 of the Health Impact Assessment: Impacts of the Proposed Development for further information regarding the potential impacts on the quality of life of relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. In construction, considerations include potential change to livelihoods, maintenance of PRoW, sense of pride, risk of accidents, and environmental changes. The most severe impact is identified as moderate adverse associated with children, older people, pregnancy and maternal group and existing residents and users. However, best practice construction activities will be implemented and secured by a series of appropriate management plans. During the operational phase, it is acknowledged that the change in land use, landscape, visual and recreational amenity impacts could have an indirect effect on the mental health of some receptors. Nevertheless, the mitigation proposed will reduce the physical impacts as far as possible over time and, as such, should contribute to alleviating any indirect mental health impacts. A number of management plans are proposed to minimise any potential for negative impacts:			

Comment	Applicant Response			
General concern regarding personal safety	The Applicant has considered those factors associated with residents' safety as a result of each of the development phases of the Proposed Development within a number of the six overarching determinants of health through the WHIASU approach, including 'Lifestyles', 'Social and community influences on health', and 'Living / environmental conditions affecting health'. See Tables 7.1 and 7.2 in Section 7: Impacts of the Proposed Development for further information regarding the potential impacts on safety of relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of this HIA. Potential impacts on personal safety linked to risk of fire, flooding, traffic changes and changes to water quality have been considered. Management plans will be in place to ensure risk to personal safety is minimised. Overall impact on personal safety is neutral.			
General concern regarding impacts on physical health	The Applicant has considered those impacts on physical health as a result of each of the development phases of the Proposed Development within a number of the six overarching determinants of health through the WHIASU approach, including 'Lifestyles', 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Access and quality of services'. See Tables 7.1 and 7.2 in Section 7: Impacts of the Proposed Development for further information regarding the potential impacts on physical health of relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of this HIA. As outlined in the Planning Statement [ENOI0163/APP/7.1], temporary closures of existing PRoW within the Order Limits are not anticipated. However, in the unlikely event this is necessary for health and safety purposes, temporary closures will be limited to the minimum duration required to ensure continued connectivity. There will be two new permissive paths implemented to connect existing Public Right of Ways (PRoWs). The permissive paths will operate during the life of the Proposed Development. In addition, there is an appropriate offset from the Trent Valley Way embedded into the design. This will ensure that the physical activity of local residents is supported, providing accessible routes for walking, running, and cycling. By preserving these pathways, the development supports the community's physical health, wellbeing, and mental health benefits associated with outdoor exercise and recreation. Therefore, there are no negative impacts on physical health as a result of the Proposed Development.			
Concern regarding risk of fire	The Applicant has considered the potential risk of fire within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', and 'Living / environmental conditions			

Comment	Applicant Response
	affecting health'. See Tables 7.1 and 7.2 in Section 7: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of this HIA. Additionally, fire risk associated with the BESS is assessed within Chapter 17: Miscellaneous Issues of the ES, within the Major Accidents and Disasters section. No significant effects relating to fire risk are identifed with mitigation in place for any phase of the development. An Outline Fire Risk Management Plan has been produced for the Proposed Development and will be updated and maintained as a 'live document' throughout the operational phase of the Proposed Development, to reduce the risk of fire and propagation within the BESS Compound. Following this, the Outline Fire Risk Management Plan (secured via DCO requirement) (FRMP) [ENO10163/APP/6.3.4] will be implemented on the Site prior to the operational phase, once detailed design.
Concern regarding increased safety risk to school children due to increased traffic	The Applicant has considered those factors associated with increased traffic during the construction and decommissioning phases within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Access and quality of services'. See Table 7.1 in Section 7: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of this HIA. Collision records suggest no risk, however, the change in traffic movements is acknowledged and there remains potential for adverse effects on children. An Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13] will be secured to manage this risk.
Concern regarding water contamination due to toxic chemicals in panels/Concern regarding toxic chemicals in the solar panels	The Applicant has considered the potential for water contamination due to toxicity on Site within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Macro-economic, environmental and sustainability factors'. See Tables 7.1 and 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. Additionally a Phase 1 Geoenvironmental Desk Study Report is submitted with the application with the Site deemed as being of low overall risk of significant

Comment	Applicant Response			
	contamination, and it is not considered necessary to undertake a ground investigation prior to granting of the DCO application. The Hydrology, Hydrogeology, Flood Risk and Drainage Chapter of the ES further outlines the potential effects of firewater and contaminated runoff, however toxic chemicals (if any) from solar pv panels is not expected to cause significant effects.			
Concern regarding the safety of residents during construction	The Applicant has considered those factors associated with residents' safety as a result of the construction phase of the Proposed Development within a number of the six overarching determinants of health through the WHIASU approach, including 'Lifestyles', 'Social and community influences on health', and 'Living / environmental conditions affecting health'. See Table 7.1 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on safety of relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. Potential impacts on safety linked to risk of fire, flooding, traffic changes and changes to water quality have been considered. Management plans will be in place to ensure risk to safety is minimised. Overall impact on safety is neutral. Best practice construction measures will be implemented and potential impacts minimised through a number of management plans, including Outline Construction Traffic Management Plan (CTMP) [ENOI0163/APP/6.3.13] and Construction Environmental Management Plan (CEMP) [ENOI0163/APP/6.3.4].			
Concern regarding safety risks due to increased traffic on pedestrians and other drivers	The Applicant has considered those factors associated with increased traffic during the construction and decommissioning phases within each relevant determinants of health through the WHIASU approach, namely 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Access and quality of services'. See Table 7.1 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. ES Chapter 13: Transport and Access [ENO10163/APP/6.2.13] indicates that accidents and safety in relation to transport has been assessed as negligible based on the low number of existing accidents recorded. Nevertheless, a Construction Traffic Management (CTMP) [EN010163/APP/6.3.13] will be secure to manage any potential further risk.			
Concern regarding safety risks due to access through main village thoroughfares	The Applicant has considered those factors associated with potential safety risks related to impacts on access and traffic during each development phase within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', 'Living / environmental			

Comment	Applicant Response
	conditions affecting health' and 'Access and quality of services'. See Table 7.1 and Table 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. ES Chapter 13: Transport and Access [ENO10163/APP/6.2.13] indicates that accidents and safety in relation to transport has been assessed as negligible based on the low number of existing accidents recorded. Nevertheless, a Construction Traffic Management (CTMP) [ENO10163/APP/6.3.13] will be secure to manage any potential further risk.
Concern regarding safety risks associated with flooding and electrical components of the Proposed Development	The Applicant has considered those factors associated with electric sources on site, including flooding and risk of fire, within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', and 'Living / environmental conditions affecting health'. See Tables 7.1 and 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. Additionally, a Flood Risk Assessment has been prepared to support the application, assessing the risk to the development from all forms of flooding and identifying any potential impacts of flooding resulting from the Proposed Development. Appropriate mitigation measures have been identified, where required, to ensure there is no increased risk of flooding off-site as a result of the Proposed Development. A Surface Water Drainage Strategy has been prepared and demonstrates how runoff from the Proposed Development will be managed to ensure there is no increase in runoff leaving the Site. Overall, the Proposed Development will be safe from a flooding perspective and will not result in any increase in flood risk either on or off the Site, taking account of the embedded mitigation as per the conclusions of the Hydrology, Hydrogeology, Flood Risk and Drainage Chapter
Concern regarding risk of accidents on Gainsborough Road	of the ES.  The Applicant has considered those factors associated with potential safety risks related to impacts on access and traffic during each development phase within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', 'Living / environmental conditions affecting health' and 'Access and quality of services'. See Table 7.1 and Table 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform

Comment	Applicant Response		
	the assessment, and referenced as necessary in Section 7 of the HIA. Chapter 13: Transport and Access [ENO10163/APP/6.2.13] indicates that accidents and safety in relation to transport has been assessed as negligible based on the low number of existing accidents recorded, including no fatal accidents in 5 years. This implies there will be no increased risk of accidents on Gainsborough Road as a result of the Proposed Development. Nevertheless, a Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13] will be secured to manage any potential further risk.		
Concern regarding safety risks associated with glint and glare	The Applicant has considered the potential impacts on safety associated with glint and glare is considered within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', and 'Living / environmental conditions affecting health'. See Tables 7.1 and 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. Additionally, a Glint and Glare Chapter is included in the ES and assesses the glint and glare effects on identified receptors. The overall conclusion of the Chapter is that the Proposed Development is considered to have no significant glint and glare impacts upon road safety, residential amenity, railway infrastructure and operations, aviation activity, public rights of way, bridleways and waterways.		
Concern regarding health risks related to processed food	The Applicant has considered the potential impacts relating to processed food within each relevant determinant of health through the WHIASU approach, namely 'Social and community influences on health', and 'Living / environmental conditions affecting health'. See Tables 7.1 and 7.2 in Section 7 of the HIA: Impacts of the Proposed Development for further information regarding the potential impacts on relevant Target Groups. Relevant information from wider application documentation is used to inform the assessment, and referenced as necessary in Section 7 of the HIA. ES Chapter 15: Agricultural and Land Use [ENO10163/APP/6.2.15] indicates that the Proposed Development will result in the temporary disturbance of approximately 12.1 ha of BMV agricultural land. Over the duration of the Proposed Development (as a 'worst-case' assessment scenario), these areas are considered to be taken out of productive food use and are therefore "lost" for a temporary duration to the installation of fixed equipment for the modelled 40-year operational lifespan of the Proposed Development. However, this land will not be lost, in that it is all capable of restoration to a comparable grade at the decommissioning phase. As such, the impact is		

Comment	Applicant Response
	considered to be moderate adverse which is not significant. The potential for direct effect on availability of non-processed food production is not assessed within the scope of the EIA. It is assumed sourcing of food, processed or non-processed will be from a variety of sources.

# 7. IMPACTS OF THE PROPOSED DEVELOPMENT

- 7.1. This section presents an assessment of the potential impacts of the Proposed Development in each of its development phases. Consideration of potential impacts is identified for each of the Target Groups presented in Table 5.17 Section 5: Baseline. As previously noted, these groups are noted as having greatest risk of experiencing health inequalities and are likely to be more sensitive to changes to health and wellbeing determinants.
- 7.2. Table 7.1 presents the impacts associated with the construction and decommissioning phases of the Proposed Development. It is assumed that impacts of these development phases will affect the target groups in very similar ways. Table 7.2 presents the impacts associated with the operational phase.
- 7.3. The assessment aligns with the criteria presented in Section 4: Methodology of this report, which aims to align with the WHIASU Practical Guide as well as relevant determinants of HUDU.

Table 7.1: Health and well-being impacts of Proposed Development during the construction/decommissioning phases

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement		
cigarettes and non-prescribed drugs; sexual activity; and other risk-taking activity;	Statement [ENO10163/APP/7.1], temporary closures of existing PRoW within the Order Limits are not anticipated. However, in the unlikely	Children and adolescents (aged 0-15 years)	Possible	Low	Minor	None proposed to be needed			
	and safety purposes, temporary closures will be limited to the	Older persons (aged 65 and over)	Possible	Low	Minor	None proposed to be needed			
	will ensure that the physical activity of local residents remains unaffected, providing accessible routes for walking, running, and cycling. By preserving these pathways, the development	People on low incomes and those who are unemployed	Unlikely	Negligible	Negligible	None proposed to be needed			
		supports the community's physical health, wellbeing, and mental health benefits associated with outdoor exercise and recreation. There will	supports the community's physical health, wellbeing, and mental health benefits associated with outdoor exercise and recreation. There will	supports the community's physical health, wellbeing, and mental health benefits associated with outdoor exercise and recreation. There will	Pregnancy and Maternal Matters	Possible	Low	Minor	None proposed to be needed
	be two new permissive paths implemented to connect existing Public Right of Ways (PRoWs). The permissive paths will operate during the life of the Proposed Development. In addition, there is an appropriate offset from the Trent Valley Way embedded into the design. A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management, if deemed necessary.	Existing residents in nearby communities	Possible	Low	Minor	None proposed to be needed			
		Valley Way embedded into the design. A PRoW Management Plan will be provided either within the CTMP or as a separate document.	People using existing / future services in the local area	Possible	Low	Minor	None proposed to be needed		
		diversions and/or temporary	Existing businesses in the local area	Unlikely	Negligible	Negligible	None proposed to be needed		

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		ES Chapter 15: Agricultural and Land Use [ENOI0163/APP/6.2.15] indicates that the Proposed Development will result in the temporary disturbance of approximately 12.1 ha of BMV agricultural land. Over the duration of the Proposed Development (as a 'worst-case' assessment scenario), these areas are considered to be taken out of productive food use and are therefore "lost" for a temporary duration to the installation of fixed equipment for the modelled 40-year operational lifespan of the Proposed Development. However, this land will not be lost, in that it is all capable of restoration to a comparable grade at the decommissioning phase. As such, the impact is considered to be moderate adverse which is not significant.	On-site workers	Possible	Low	Minor	None proposed to be needed
Social and community influences on health	Family organisation and roles; citizen power and influence; social support and social networks; neighbourliness; sense of belonging; local pride; divisions in community; social isolation;	Potential for sense of local pride and neighbourliness to be negatively affected temporarily during the construction phase. A potential for social isolation of people who may feel intimidated or unsafe as a result of construction activities.  Potential effects associated with accidents and disasters, such as those related to flooding or fire, during the construction phase are scoped out of the assessment as the cables will not produce any significant EMFs until the Proposed Development	Children and adolescents (aged 0-15 years)	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [EN010163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [EN010163/APP/6.3.4].  A PROW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
	peer pressure; community	is generating electricity when it is operational.	Older persons (aged 65 and over)	Probable	Medium	<u>Moderate</u>	Outline Construction Traffic Management Plan (CTMP) [EN010163/APP/6.3.13]; Construction Environmental

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
	identity; cultural and spiritual ethos; racism; other social exclusion	ES Chapter 13: Transport and Access [ENO10163/APP/6.2.13] indicates that collision records received from NCC do not suggest that there is any inherent highway safety pattern or problem on Link 2 (Station Rd, West) with no accidents recorded within the last five years. As such, the sensitivity of Link 2 is categorised as low and given that there is no existing highway safety pattern or trend, the magnitude of change is considered to	People on low	Probable	Medium	Moderate	Management Plan (CEMP) [ENO10163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.  Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13];
		be negligible, and not significant.	those who are unemployed				Construction Environmental Management Plan (CEMP) [ENOIO163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			Pregnancy and Maternal Matters	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			Existing residents in nearby communities	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
							Management Plan (CEMP) [ENO10163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			People using existing / future services in the local area	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENOI0163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENOI0163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			Existing businesses in the local area	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].
			On-site workers	Unlikely	Negligible	Negligible	None proposed to be needed
Living / environmental conditions affecting health	Built environment; neighbourhood design; housing; indoor environment;	ES Chapter 11: Noise [ENO10163/APP/6.2.11] indicates that sound and vibration from the construction and decommissioning of the Proposed Development could be significant without mitigation	Children and adolescents (aged 0-15 years)	Probable	Low	Minor to moderate	Outline Construction Traffic Management Plan (CTMP) [ENOI0163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENOI0163/APP/6.3.4].
	noise; air and	measures. However, with					A PRoW Management Plan will be provided either within the CTMP or as a

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
	water quality; attractiveness of area; green space; community safety; smell/odour;	appropriate measures and attention to sensitive locations, noise levels are unlikely to exceed typical limits at nearby properties, resulting in a low overall impact.  ES Chapter 14: Air Quality					separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
	waste disposal; road hazards; injury hazards; quality and safety of play areas	[EN010163/APP/6.2.14] indicates that there is potential for negative effect in relation to dust risk from construction activities.  As outlined in the Planning Statement [EN010163/APP/7.1] indicates, temporary closures of existing Public Rights of Way within the Order Limits are not anticipated. However, in the unlikely event this is necessary for health and safety purposes, temporary closures will be limited to the minimum duration required to ensure continued connectivity. The outline PRoW Management Plan will set out how diversions will be managed if they are absolutely necessary.  ES Chapter 12: Climate Change [[EN010163/APP/6.2.12] indicates that there is potential for a minor adverse effect of greenhouse gas emissions from construction and decommissioning of the Proposed Development. Adhering to good practice and mitigation measures, including whole life carbon assessments will help contribute to the UK's net zero 2050 goals.  Potential effects associated with accidents and disasters, such as those related to flooding or fire,	Older persons (aged 65 and over)	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].  A PROW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			People on low incomes and those who are unemployed	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			Pregnancy and Maternal Matters	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		during the construction phase are scoped out of the assessment as the cables will not produce any significant EMFs until the Proposed Development is generating electricity when it is operational.  ES Chapter 13: Transport and Access [ENO10163/APP/6.2.13] indicates that					A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
		collision records received from NCC do not suggest that there is any inherent highway safety pattern or problem on Link 2 with no accidents recorded within the last five years. As such, the sensitivity of Link 2 is	Existing residents in nearby communities	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].
		categorised as low and given that there is no existing highway safety pattern or trend, the magnitude of change is considered to be negligible, and not significant.					A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			People using existing / future services in the local area	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [EN010163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [EN010163/APP/6.3.4].
							A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			Existing businesses in the local area	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
			On-site workers	Probable	Medium	Moderate	Outline Construction Traffic Management Plan (CTMP) [ENOI0163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENOI0163/APP/6.3.4].  A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
Economic conditions affecting health	Unemployment; income; economic inactivity; type of employment;	average of 164 on-site jobs supported during the construction period, which is estimated to be up to 24 months as well as 218 temporary jobs in the wider economy. In total, the Proposed Development could support 382 temporary jobs.  The Proposed Development could support around 82 temporary construction jobs during its decommissioning phase which is	(aged 0-15	Unlikely	Negligible	Negligible	None proposed to be needed.
	workplace conditions		Older persons (aged 65 and over)	Unlikely	Negligible	Negligible	None proposed to be needed.
			People on low incomes and those who are unemployed	Definite	Medium	Major	Outline CEMP [Appendix 4.1, [ENO10163/APP/6.3.4]; Outline Decommissioning Plan [ENO10163/APP/6.3.4]); Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]; OSCESP [ENO10163/APP/6.3.10].
		Commitments to supply chain employment and skills uplift outlined in the Outline Supply Chain, Employment and Skills Plan (OSCESP)	Pregnancy and Maternal Matters	Unlikely	Negligible	Negligible	None proposed to be needed.
		[ENO10163/APP/6.3.10]. specifically relate to the construction and	Existing residents in	Possible	Low	<mark>Minor</mark>	OSCESP [ENO10163/APP/6.3.10]; Outline CEMP [Appendix 4.1,

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		decommissioning phases, ensuring the positive effects are a legacy benefit of the Proposed Development.  In terms of risk of major accidents and disasters during the construction and decommissioning phases, ES	nearby communities				[ENO10163/APP/6.3.4]; Outline Decommissioning Plan [ENO10163/APP/6.3.4]); Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]; OSCESP [ENO10163/APP/6.3.10].
		Chapter 17: Miscellaneous [EN010163/APP/6.2.17] acknowledges that there are various health and safety considerations particularly for workers, however, the risk to both workers and the general public is low	People using existing / future services in the local area	Unlikely	Negligible	Negligible	None proposed to be needed.
		and not significant during both of these phases.  ES Chapter 17: Miscellaneous	Existing businesses in the local area	Probable	Medium	Moderate	None proposed to be needed.
		[ENO10163/APP/6.2.17] indicates that the risk of fire from BESS is low, and to a lesser extent for workers during the construction and decommissioning phase than onsite employees during the operational phase, as the BESS will be containerised, thus reducing the risk of damage to the energy storage which may cause fires. It is intended that after the 40-year operational life of the solar panels, BESS and associated equipment will be removed from the Site, removing the risk of fire completely during decommissioning phase and beyond.	workers	Definite	Medium	Major	OSCESP [EN010163/APP/6.3.10]; Outline CEMP [Appendix 4.1, [EN010163/APP/6.3.4]; Outline Decommissioning Plan [EN010163/APP/6.3.4]); Outline Fire Risk Management Plan (FRMP) [EN010163/APP/6.3.4]; OSCESP [EN010163/APP/6.3.10].
		Comprehensive health and safety assessments are an essential part of the construction process and would be carried out prior to construction by the contractor in accordance with legislation. A Construction, Design and Management (CDM) co-ordinator will be appointed responsible for the					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		provision of a pre-construction information pack, as required under the Construction (Design and Management) Regulations 2015. The appointed contractor will be required to provide a construction plan and will include measures such as the implementation of a risk management system on the Site. All works will be managed in accordance with the Health and Safety at Work Act 1974, and would comply with all other relevant Health and Safety Regulations, and all works will be subject to risk assessments as required by the Outline CEMP [Appendix 4.1, [ENO10163/APP/6.3.4]) and the Outline Decommissioning Plan [Appendix 4.2, [ENO10163/APP/6.3.4]). In addition, an Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4] is provided with the application.					
Access and quality of services	Medical services; other caring services; careers advice; shops and	Temporary closures of existing Public Rights of Way within the Order Limits are not anticipated, therefore access is not expected to be limited during the construction/ decommissioning	Children and adolescents (aged 0-15 years)	Unlikely	Negligible	Negligible	None proposed to be needed.
	commercial services; public amenities; transport including	phases.  Using bedspaces for construction and decommissioning workers has potential to impact local	Older persons (aged 65 and over)	Unlikely	Negligible	Negligible	None proposed to be needed.
	parking; education and training;	accommodation demand. However, local accommodation services are expected to still have spare capacity after housing the workers. Ultimately, workers making use of serviced and	People on low incomes and those who are unemployed	Definite	Medium	Moderate	OSCESP [ENO10163/APP/6.3.10].

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
	information technology	non-serviced bedspaces in the area will be a benefit to the tourism economy for the duration of the construction period.  Commitments to supply chain employment and skills uplift outlined in the OSCESP [ENO10163/APP/6.3.10]. specifically relate to the construction and decommissioning phases, ensuring the positive effects are a legacy benefit of the Proposed	Pregnancy and Maternal Matters	Unlikely	Negligible	<b>Negligible</b>	None proposed to be needed.
		Development.	Existing residents in nearby communities	Possible	Medium	Minor	None proposed to be needed.
			People using existing / future services in the local area	Unlikely	Negligible	Negligible 1	None proposed to be needed.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
			Existing businesses in the local area	Probable	Medium	Moderate	None proposed to be needed.
			On-site workers	Definite	Medium	Moderate	OSCESP [ENO10163/APP/6.3.10].
Macro-economic, environmental and sustainability factors	Government policies; GDP; economic development; biological diversity; climate	Economic contribution (Gross Value Added, GVA) made to the local economy during the construction phase is estimated to be £29.5million. During the decommissioning phase, GVA is estimated to be £14.7million.  There is potential for increased occupancy rates of local accommodation services to generate economic benefits, providing a boost	Children and adolescents (aged 0-15 years)	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4]. BNG mitigation measures to be included in CEMP.
		to the local tourism industry during the construction and decommissioning phases.	Older persons (aged 65 and over)	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		The Proposed Development supports local economic goals, including the Bassetlaw Local Plan's aim to increase renewable and low carbon technologies in order to help					Management Plan (CEMP) [ENO10163/APP/6.3.4].
		residents and businesses achieve net zero carbon by 2050. Policy ST49 of the Bassetlaw Local Plan states that development that generates, shares, transmits or stores low carbon renewable energy will be supported subject to resolution of all relevant impacts.  Climate change could cause impacts on project resilience as a	People on low incomes and those who are unemployed	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].
			Pregnancy and Maternal Matters	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].
		Potential for negative impacts on ecology include habitat loss / damage, contamination from pollutants and disturbance of species. Positive impacts include habitat gains (e.g. conversion of arable land to	Existing residents in nearby communities	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].  BNG mitigation measures to be included in CEMP.
		ES Chapter 14: Air Quality [ENO10163/APP/6.2.14] indicates that there is predicted to be an average of 116 LDV AADT and 36 HDV AADT construction vehicle flows on anticipated construction road links	People using existing / future services in the local area	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [ENOI0163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [ENOI0163/APP/6.3.4].  BNG mitigation measures to be included in CEMP.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		during the 24-month construction period. This is below the screening criteria (500 LDV's and or 100 HDV's) for detailed assessment in line with the EPUK/ IAQM criteria for the	Existing businesses in the local area	Probable	Medium	Moderate	None proposed to be needed.
		potential of effects to air quality. As such, the effect on air quality as a result of traffic emissions during the construction phase is considered to be insignificant. It is also noted that, when considering the peak construction periods, month 7 is expected to be the peak delivery month with an additional anticipated 131 HDVs per day. Whilst this is above the EPUK/ IAQM threshold for the potential significant effects to air quality this criteria relates to average vehicle numbers, rather than peak conditions. The peak construction traffic flows will be present on the road network for a short period of time and any effects will be transient, as such the effect to air quality is considered to be insignificant.	On-site workers	Definite	Medium	Major	Outline Construction Traffic Management Plan (CTMP) [EN010163/APP/6.3.13]; Construction Environmental Management Plan (CEMP) [EN010163/APP/6.3.4]. BNG mitigation measures to be included in CEMP.

Table 7.2: Health and well-being impacts of Proposed Development during the operational phase

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
Lifestyles	Diet; Physical Activity; use of alcohol, cigarettes, and non-prescribed drugs; sexual activity; and other risk-taking activity  activity:  Courses of existing PRoW within the Order Limits are not anticipated. However, in the unlikely event this is necessary for health and safety purposes, temporary closures will be limited to the minimum duration required to ensure continued connectivity. There will be two new permissive paths implemented to connect existing Public Right of Ways (PRoWs). The permissive paths will operate during the life of the Proposed Development. In addition, there is an appropriate offset from the Trent Valley Way embedded into the design. This will ensure that the physical activity of local residents remains unaffected, providing accessible routes for walking, running, and cycling. By preserving these	[ENO10163/APP/7.1], temporary closures of existing PRoW within the Order Limits are not anticipated. However, in the unlikely event this is necessary for health and safety purposes, temporary closures will be limited to the minimum duration required to ensure continued connectivity. There will be two new	Children and adolescents (aged 0-15 years)	Possible	Low	Minor	A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management
		Older persons (aged 65 and over)	Possible	Low	Minor	A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.	
		pathways, the development supports the community's physical health, wellbeing, and mental health benefits associated with outdoor exercise and recreation. A PROW Management Plan	People on low incomes and those who are unemployed	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.
		will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or	Pregnancy and Maternal Matters	Possible	Low	Minor	No specific mitigation or enhancement proposed.
		temporary management, if deemed necessary.  In terms of potential for increasing chance of risk-taking activity, the design of the Proposed Development will be informed by appropriate design guides and standards with the intent of	Existing residents in nearby communities	Possible	Low	Minor	A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		ES Chapter 15: Agricultural and Land Use [ENOI0163/APP/6.2.15] indicates that the Proposed Development will result in the temporary disturbance of approximately 12.1 ha of BMV agricultural land. Over the duration of the Proposed Development (as a 'worst-case' assessment scenario), these areas are considered to be taken out of productive food use and are therefore "lost" for a temporary duration to the installation of fixed equipment for the modelled 40-year operational lifespan of the Proposed Development. However, this land will not be lost, in that it is all capable of restoration to a comparable grade at the decommissioning phase. As such, the impact is considered to be moderate adverse which is not significant.  Family organisation and roles; citizen power and influence; social support and social networks; neighbourliness; sense of belonging; local	People using existing / future services in the local area	Possible	Low	Minor	A PRoW Management Plan will be provided either within the CTMP or as a separate document. This will include details of any temporary closures and/or diversions and/or temporary management.
			Existing businesses in the local area	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.
			On-site workers	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.
Social and community influences on health	Family organisation and roles; citizen power and influence; social support and social networks; neighbourliness; sense of belonging; local pride; divisions in community; social isolation; peer pressure;		Children and adolescents (aged 0-15 years)	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; PRoW Management Plan.
			Older persons (aged 65 and over)	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; PRoW Management Plan.
		term of layout. This has included maximisation of distances between built infrastructure, including the	People on low incomes and those who are unemployed	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
	community identity; cultural and spiritual ethos; racism; other social exclusion	proposed BESS and substation, from existing residential properties, positioning of infrastructure in the context of the already developed power station immediately beyond, and also reduction in panel height to 3m following consultation on the draft	Pregnancy and Maternal Matters	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; PRoW Management Plan.
		PEIR stage ES Chapter 6: LVIA and RVAA [EN010163/APP/6.2.6] indicates that the operational phase would cause notable effects upon the Landscape Character of the Site, due to the extent and size of the Proposed	Existing residents in nearby communities	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; PRoW Management Plan.
		Development, albeit the majority of the important landscape features at the site, such as the areas of woodland, trees and the majority of the hedgerow network, would not be directly impacted.  ES Chapter 6: LVIA and RVAA	People using existing / future services in the local area	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; PRoW Management Plan.
		[ENO10163/APP/6.2.6] indicates that the Site character is currently an agricultural landscape but influenced by the nearby energy generation	Existing businesses in the local area	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.
		infrastructure at the former West Burton and Cottam Power Station sites. Impacts on landscape character identified as significant adverse at the opening year (Year 1) but reduce to a lesser significance at Year 15. In terms of residential amenity, there is expected to be moderate, not significant effects at worst, for the small number of properties which lie within 500m of built infrastructure, but majority are predicted to expected minor, not significant.  ES Chapter 6: LVIA and RVAA	On-site workers	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.
		[ENO10163/APP/6.2.6] indicates that a series of landscape mitigation and enhancement measures are proposed illustratively presented through the					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		Landscape and Ecological Mitigation					
		Strategy [ENO10163/APP/6.4.6],					
		including planting of new hedgerows,					
		trees, woodland and species rich					
		grassland. These will help to minimise					
		any potentially adverse impacts.					
		In addition, there will be two new					
		permissive paths implemented to					
		connect existing Public Right of Ways					
		(PRoWs). The permissive paths will					
		operate during the life of the Proposed					
		Development. In addition, there is an					
		appropriate offset from the Trent					
		Valley Way embedded into the design.					
		Notwithstanding, it is acknowledged					
		that there would be significant adverse visual effects on users of small					
		sections of that route (less than 1km),					
		in addition to other PRoWs that pass					
		through or are close to the Site. This					
		would apply to those sections which					
		have clear, open views across part of					
		the Site, which are not blocked by					
		existing vegetation. For the majority of					
		the routes however the magnitude of					
		impact would be no greater than low,					
		resulting in not significant visual					
		effects.					
		It is acknowledged that the change in					
		land use, landscape, visual and					
		recreational amenity impacts could					
		have an indirect effect on the mental					
		health of some receptors.					
		Nevertheless, the mitigation proposed					
		will reduce the physical impacts as far					
		as possible over time and, as such,					
		should contribute to alleviating any					
		indirect mental health impacts.					
		ES Chapter 17: Miscellaneous					
		[EN010163/APP/6.2.17] considers					
		potential effects associated with					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		electro, magnetic, and electro-					
		magnetic fields during the operational					
		phase. It explains that an underground					
		high voltage 400kV cable system will					
		be installed to connect the Proposed					
		Development substation with the					
		existing West Burton Power Station					
		substation, and the highest EMFs					
		produced by underground cables are					
		located directly above the buried					
		cables, and field strength decreases					
		with distance from the source. The					
		exact position of the cable route will					
		be confirmed at the detailed design					
		stage. The Cable Route Corridor is a					
		short length to the existing substation					
		at the West Burton Power Station site					
		is adjacent to the north of the Site. The					
		nearest residential receptor is located					
		more than 100m from the likely route					
		of the underground cable (bearing in					
		mind that the PoC is adjacent to the					
		north / north-east of the Site, within					
		the existing West Burton Power Station					
		site). Chapter 17: Miscellaneous					
		indicates that the effect of					
		Electromagnetic Fields (EMFs) on local					
		residents is not significant.					
		ES Chapter 8: Hydrology,					
		[ENO10163/APP/6.2.8] acknowledges					
		that, during the operational phase,					
		without mitigation there is the					
		potential for water quality impacts to					
		local watercourses and/or					
		groundwater due to accidental					
		releases of chemicals or					
		contaminated runoff, for example					
		associated with chemical use within					
		the BESS and substation areas and					
		the release of contaminated runoff in					
		the event of a fire (considered a					
		possibility particularly for the BESS					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		area). However, a leak detection					
		system and alarm will be fitted to the					
		cooling system, and the drainage					
		strategy for the BESS area will include					
		provision for the automatic retention					
		of any contaminated fire-fighting					
		runoff in the event of a fire. Furthermore, the attenuation basins in					
		the BESS and substation areas will be					
		lined to prevent infiltration. Taking					
		account of the embedded mitigation					
		measures, the effect is identified as					
		negligible and not significant.					
		ES Chapter 16: Glint and Glare					
		[ENO10163/APP/6.2.16] indicates that					
		users of local roads including Main					
		Street, Leverton Road, Wheatley Road,					
		and regional roads including a 200m					
		section of A516 / Gainsborough Rd					
		could experience moderate adverse					
		effect in terms of solar reflection from					
		the panels on site. However, retention					
		of and appropriate management of					
		existing vegetation around the Site					
		(where feasible), and provision of					
		screening (vegetation) along the					
		boundary of the Site to obstruct					
		views of potentially reflecting panels					
		will ensure that the residual effect is					
		negligible and not significant. As noted earlier, as far as possible,					
		avoidance and minimisation of such					
		effects is managed through					
		embedded design in term of layout. In					
		addition, a series of landscape					
		mitigation and enhancement					
		measures are proposed, illustratively					
		presented through the Landscape					
		and Ecological Mitigation Strategy					
		[ENO10163/APP/6.4.6], including					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		planting of new hedgerows, trees, woodland and species rich grassland.  ES Chapter 16: Glint and Glare [ENO10163/APP/6.2.16] indicates that accounting for screening in the form of vegetation, non-residential buildings and intervening terrain obstructing views of potential reflecting panels for all dwellings included in the assessments, the potential glint and glare effect on residential amenity is negligible and not significant. In addition, potential effects on users of PRoWs, bridleways and waterways are considered minor adverse and not significant due to the transient nature of use.					
Living / environmental conditions affecting health	ronmental environment; ditions neighbourhood	The design of the Proposed Development will be informed by appropriate design guides and standards with the intent of making it as safe as possible for future employees and local residents.  ES Chapter 14: Air Quality [[EN010163/APP/6.2.14] indicates that additional traffic movements from the Proposed Development is predicted to	Children and adolescents (aged 0-15 years)	Possible	Medium	Minor to Moderate	Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]).; Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6]; Flood risk enhancement works.
	community safety; smell/odour; waste disposal; road hazards; injury hazards; quality and safety of play areas	have a negligible air quality impact on surrounding sensitive receptors once the Proposed Development is operational. ES Chapter 11: Noise [ENO10163/APP/6.2.11] indicates that sound levels resulting from the introduction of the Proposed Development are predicted to be negligible-to-low during both daytime and night-time periods.	Older persons (aged 65 and over)	Possible	Medium	Minor to Moderate	Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]). Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; Flood risk enhancement works.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		ES Chapter 12: Climate Change [ENO10163/APP/6.2.12] indicates that the Proposed Development is expected to have a moderate beneficial impact on greenhouse gas	People on low incomes and those who are unemployed	Unlikely	Negligible	Negligible	Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]).
		emissions and will contribute appropriately to the UK's net zero 2050 trajectory.  ES Chapter 17: Miscellaneous [ENO10163/APP/6.2.17] considers potential effects associated with xxx during the operational phase. It explains that an underground high voltage 400kV cable system will be installed to connect the Proposed	Pregnancy and Maternal Matters	Possible	Medium	Minor to Moderate	Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]); Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; Flood risk enhancement works.
		Development substation with the existing West Burton Power Station substation, and the highest EMFs produced by underground cables are located directly above the buried cables, and field strength decreases with distance from the source. The exact position of the cable route will be confirmed at the detailed design stage. The Cable Route Corridor is a short length to the existing substation at the West Burton Power	Existing residents in nearby communities	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; Flood risk enhancement works; Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]).
		Station site is adjacent to the north of the Site. The nearest residential receptor is located more than 100m from the likely route of the underground cable (bearing in mind that the PoC is adjacent to the north / north-east of the Site, within the existing West Burton Power Station site). Chapter 17: Miscellaneous indicates that the effect of Electromagnetic Fields (EMFs) on	People using existing / future services in the local area	Possible	Medium	Minor to Moderate	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6]; Flood risk enhancement works; Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]).
		local residents is not significant.	Existing businesses in the local area	Unlikely	Negligible	Negligible	No specific mitigation or enhancement proposed.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
Determinant	Consideration	ES Chapter 17: Miscellaneous [ENO10163/APP/6.2.17] acknowledges the risk of fire from BESS during onsite employees during the operational phase, but notes that the risk is low. The BESS will be containerised, thus reducing the risk of damage to the energy storage which may cause fires. Once the system is commissioned, regardless of the technology used, the whole installation will be monitored continuously at a central hub where engineers and technology experts will ensure that it is operating optimally and safely 24 hours a day, 7 days a week. The preventative measures included in the design of the BESS and associated systems are such that an uncontrolled battery fire event is highly unlikely, and as such a significant effect upon the identified receptor from such is unlikely in relation to major accidents and disasters. An Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]) is submitted with the application, and the final Fire Risk Management Plan (secured via DCO requirement) will be implemented on the Site prior to the operational phase.	Sensitive receptor  On-site workers	Unlikely	Negligible		
		[ENO10163/APP/6.2.8] acknowledges that, during the operational phase, without mitigation there is the potential for water quality impacts to local watercourses and/or					
		groundwater due to accidental releases of chemicals or contaminated runoff, for example associated with chemical use within the BESS and substation areas and					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		the release of contaminated runoff in					
		the event of a fire (considered a					
		possibility particularly for the BESS					
		area). However, a leak detection					
		system and alarm will be fitted to the					
		cooling system, and the drainage					
		strategy for the BESS area will					
		includes provision for the automatic					
		retention of any contaminated fire-					
		fighting runoff in the event of a fire.					
		Furthermore, the attenuation basins in					
		the BESS and substation areas will be					
		lined to prevent infiltration. Taking					
		account of the embedded mitigation					
		measures, the effect is identified as					
		negligible and not significant. In					
		addition, as noted in ES Chapter 8:					
		Hydrology, [ENO10163/APP/6.2.8]					
		proposed flood risk enhancement					
		works aim to provide a reduction in					
		flood risk to Sturton le Steeple during					
		the operational phase of the					
		Proposed Development. A low					
		magnitude reduction in flood risk is					
		anticipated, with the sensitivity					
		classed as medium, resulting in a					
		minor beneficial significance effect on					
		flood risk.					
		ES Chapter 16: Glint and Glare					
		[ENO10163/APP/6.2.16] indicates that					
		users of local roads including Main					
		Street, Leverton Road, Wheatley Road,					
		and regional roads including a 200m					
		section of A516 / Gainsborough Rd					
		could experience moderate adverse					
		effect in terms of solar reflection from					
		the panels on site. However, retention					
		of and appropriate management of					
		existing vegetation around the Site					
		(where feasible), and provision of					
		screening (vegetation) along the					
		boundary of the Site to obstruct					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		views of potentially reflecting panels				·	
		will ensure that the residual effect is					
		negligible and not significant. As					
		noted earlier, as far as possible,					
		avoidance and minimisation of such					
		effects is managed through					
		embedded design in term of layout. In addition, a series of landscape					
		mitigation and enhancement					
		measures are proposed, illustratively					
		presented through the Landscape					
		and Ecological Mitigation Strategy					
		[ENO10163/APP/6.4.6], including					
		planting of new hedgerows, trees,					
		woodland and species rich grassland.					
		ES Chapter 16: Glint and Glare					
		[ENO10163/APP/6.2.16] indicates that					
		accounting for screening in the form					
		of vegetation, non-residential					
		buildings and intervening terrain					
		obstructing views of potential					
		reflecting panels for all dwellings included in the assessments, the					
		potential glint and glare effect on					
		residential amenity is negligible and					
		not significant. In addition, potential					
		effects on users of PRoWs, bridleways					
		and waterways are considered minor					
		adverse and not significant due to the					
		transient nature of use.					
		As far as possible, avoidance and					
		minimisation of landscape and visual					
		effects is managed through embedded					
		design in term of layout. This has					
		included maximisation of distances					
		between built infrastructure, including					
		the proposed BESS and substation, from existing residential properties,					
		positioning of infrastructure in the					
		context of the already developed					
		power station immediately beyond,					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		and also reduction in panel height to 3m following consultation on the draft PEIR stage ES Chapter 6: LVIA and RVAA [ENOIO163/APP/6.2.6] indicates that the operational phase would cause notable effects upon the Landscape Character of the Site, due to the extent and size of the Proposed Development, albeit the majority of the important landscape features at the site, such as the areas of woodland, trees and the majority of the hedgerow					
		network, would not be directly impacted.  ES Chapter 6: LVIA and RVAA					
		[EN010163/APP/6.2.6] indicates that the Site character is currently an agricultural landscape but influenced by the nearby energy generation infrastructure at the former West Burton and Cottam Power Station sites.					
		Impacts on landscape character identified as significant adverse at the opening year (Year 1) but reduce to a lesser significance at Year 15. In terms of residential amenity, there is					
		expected to be moderate, not significant effects at worst, for the small number of properties which lie within 500m of built infrastructure, but majority are predicted to expected minor, not significant.					
		ES Chapter 6: LVIA and RVAA [ENO10163/APP/6.2.6] indicates that a series of landscape mitigation and enhancement measures are proposed					
		illustratively presented through the Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6], including planting of new hedgerows, trees, woodland and species rich					

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		grassland. These will help to minimise any potentially adverse impacts.					
		In addition, there will be two new permissive paths implemented to connect existing Public Right of Ways (PRoWs). The permissive paths will operate during the life of the Proposed Development. In addition, there is an appropriate offset from the Trent Valley Way embedded into the design. Notwithstanding, it is acknowledged that there would be significant adverse visual effects on users of small sections of that route (less than lkm), in addition to other PRoWs that pass through or are close to the Site. This would apply to those sections which have clear, open views across part of the Site, which are not blocked by existing vegetation. For the majority of the routes however the magnitude of impact would be no greater than low, resulting in not significant visual effects.					
		It is acknowledged that the change in land use, landscape, visual and recreational amenity impacts could have an indirect effect on the mental health of some receptors.  Nevertheless, the mitigation proposed will reduce the physical impacts as far as possible over time and, as such, should contribute to alleviating any indirect mental health impacts.					
Economic conditions affecting health	Unemployment; income; economic inactivity; type	Based on information provided by the Applicant, it is estimated that once operational there will not be any permanent jobs on the Site. There will	Children and adolescents (aged 0-15 years)	Unlikely	Negligible	Negligible	None proposed to be necessary.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
	of employment; workplace conditions	be frequent visits made by off-site workers whose remit includes this Site to ensure the Proposed Development is maintained appropriately and	Older persons (aged 65 and over)	Unlikely	Negligible	Negligible	None proposed to be necessary.
		remains operational.  ES Chapter 17: Miscellaneous [ENO10163/APP/6.2.17] acknowledges	People on low incomes and those who are unemployed	Unlikely	Negligible	Negligible	Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]).
	the risk of fire from BESS during onsite employees during the operational phase, but notes that the risk is low.  The BESS will be containerised, thus	Pregnancy and Maternal Matters	Unlikely	Negligible	Negligible	None proposed to be necessary.	
		reducing the risk of damage to the energy storage which may cause fires. Once the system is commissioned, regardless of the technology used, the	Existing residents in nearby communities	Unlikely	Negligible	Negligible	None proposed to be necessary.
		whole installation will be monitored continuously at a central hub where engineers and technology experts will ensure that it is operating optimally and safely 24 hours a day, 7 days a	People using existing / future services in the local area	Unlikely	Negligible	Negligible	None proposed to be necessary.
		week. The preventative measures included in the design of the BESS and associated systems are such that an uncontrolled battery fire event is	Existing businesses in the local area	Unlikely	Negligible	Negligible	None proposed to be necessary.
		highly unlikely, and as such a significant effect upon the identified receptor from such is unlikely in relation to major accidents and disasters. An Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]) is submitted with the application, and the final Fire Risk Management Plan (secured via DCO requirement) will be implemented on the Site prior to the operational phase.	On-site workers	Unlikely	Negligible	Negligible	Outline Fire Risk Management Plan (FRMP) [ENO10163/APP/6.3.4]).
Access and quality of services	Medical services; other caring services; careers advice;	There are commitments to supply chain employment and skills uplift outlined in the OSCESP [ENOI0163/APP/6.3.10]. While	Children and adolescents (aged 0-15 years)	Unlikely	Negligible	Negligible	None proposed to be necessary.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
	shops and commercial services; public amenities; transport including parking; education and	commercial services; public amenities; transport including parking; education and the construction and decommissioning phase, the intention of such commitments is to ensure the positive effects are a legacy benefit of the Proposed Development.	Older persons (aged 65 and over)	Unlikely	Negligible	Negligible	None proposed to be necessary.
			People on low incomes and those who are unemployed	Definite	Low	Moderate	OSCESP [ENOI0163/APP/6.3.10].
	training; information technology		Pregnancy and Maternal Matters	Unlikely	Negligible	Negligible	None proposed to be necessary.
			Existing residents in nearby communities	Possible	Low	Minor	OSCESP [EN010163/APP/6.3.10].
			People using existing / future services in the local area	Unlikely	Negligible	Negligible	None proposed to be necessary.
			Existing businesses in the local area	Definite	Low	Moderate	OSCESP [EN010163/APP/6.3.10].
			On-site workers	Unlikely	Negligible	Negligible Negligible Negligible	None proposed to be necessary.
Macro- economic, environmental and sustainability factors	development; biological diversity; climate  to no GVA supported by the operational phase of the Proposed Development.  It is estimated that the solar project element of the Proposed Development could generate around £2million per annum in business rates. Over the intended 40-year lifespan of the Proposed Development, business rates generated could total around £44million (present value).	Children and adolescents (aged 0-15 years)	Definite	Medium	Major	Outline Operational Management Plan (OMP) [EN010163/APP/6.3.4] will outline the methods and monitoring requirements to prevent adverse effects on Flood Risk and Drainage during the operational phase.	
		intended 40-year lifespan of the Proposed Development, business rates generated could total around	Older persons (aged 65 and over)	Definite	Medium	Major	Outline OMP [ENO10163/APP/6.3.4] will outline the methods and monitoring requirements
		ES Chapter 12: Climate Change [EN010163/APP/6.2.12] indicates that the operational phase of the Proposed Development on GHG emissions is					to prevent adverse effects on Flood Risk and Drainage during the operational phase.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		considered to have a moderate beneficial (significant) effect and will contribute appropriately to the UK's net zero 2050 trajectory. Measures to	People on low incomes and those who are unemployed	Definite	Medium	Major	None proposed to be necessary.
		<ul> <li>improve sustainability of the Site are likely to include, but not be limited to:</li> <li>Sustainable Drainage Systems (SuDS) to manage runoff.</li> <li>Increasing recyclability by segregating construction waste to be re-used.</li> <li>Conducting regular planned maintenance of the construction</li> </ul>	Pregnancy and Maternal Matters	Definite	Medium	Major	Outline OMP [ENO10163/APP/6.3.4] will outline the methods and monitoring requirements to prevent adverse effects on Flood Risk and Drainage during the operational phase.
		plant and machinery to optimise efficiency.  Reusing suitable infrastructure and resources already available within the Proposed Development where possible.  ES Chapter 8: Hydrology, Hydrogeology, Flood Risk and Drainage Chapter [ENO10163/APP/6.2.8] acknowledges that, during the operational phase, without mitigation	Existing residents in nearby communities	Definite	Medium	Major	Outline Operational Management Plan (CEMP) [EN010163/APP/6.3.4] will outline the methods and monitoring requirements to prevent adverse effects on Flood Risk and Drainage during the operational phase.
		there is the potential for water quality impacts to local watercourses and/or groundwater due to accidental releases of chemicals or contaminated runoff, for example associated with chemical use within the BESS and substation areas and the release of contaminated runoff in the event of a fire (considered a possibility particularly for the BESS area). However, a leak detection system and alarm will be fitted to the cooling	People using existing / future services in the local area	Definite	Medium	Major	Outline Operational Management Plan (CEMP) [EN010163/APP/6.3.4] will outline the methods and monitoring requirements to prevent adverse effects on Flood Risk and Drainage during the operational phase.
		system, and the drainage strategy for the BESS area will includes provision for the automatic retention of any	Existing businesses in the local area	Definite	Medium	Major	None proposed to be necessary.
		contaminated fire-fighting runoff in the event of a fire. Furthermore, the	On-site workers	Definite	Medium	Major	None proposed to be necessary.

Determinant	Consideration	Potential impact	Sensitive receptor	Likelihood	Magnitude	Overall impact	Mitigation or Enhancement
		attenuation basins in the BESS and substation areas will be lined to prevent infiltration. Taking account of the embedded mitigation measures, the effect is identified as negligible and not significant.					
		ES Chapter 8: Hydrology, Hydrogeology, Flood Risk and Drainage Chapter [ENO10163/APP/6.2.8] assesses the impacts of heating of groundwater from HV cables. It is acknowledged that heat can be a groundwater pollutant, and this could be caused by thermal transmission from high voltage (HV) underground cables. However, there are no sensitive abstractions or protected habitats identified that could be affected by this impact. As such, the assessment determines the residual effects as negligible and not significant.					

## 8. RECOMMENDATIONS

8.1. A summary of the recommendations, including measures proposed to ensure appropriate monitoring and evaluation against each of the assessed health and wellbeing determinants is presented in Table 7.1 for the construction phase and Table 7.2 for the operational phase.

Table 8.1: Recommendations, monitoring, and evaluation of Proposed Development during the construction and decommissioning phases

Recommended Mitigation or Enhancement Measure	Responsible party	Timeframe	Method of implementation
None proposed to be needed	N/A	N/A	N/A
<ul> <li>Outline Construction         Traffic Management Plan         (CTMP)         [EN010163/APP/6.3.13].</li> <li>Construction         Environmental         Management Plan (CEMP)         [EN010163/APP/6.3.4].</li> <li>PRoW Management Plan.</li> </ul>	Drafting and approval: Applicant      Implementation: Construction Contractor (once appointed)	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement
<ul> <li>Outline Construction         Traffic Management Plan         (CTMP)         [EN010163/APP/6.3.13].</li> <li>Construction         Environmental         Management Plan (CEMP)         [EN010163/APP/6.3.4].</li> <li>PRoW Management Plan.</li> </ul>	<ul> <li>Drafting and approval: Applicant</li> <li>Implementation: Construction Contractor (once appointed)</li> </ul>	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement
<ul> <li>Outline CEMP [Appendix 4.1, [ENO10163/APP/6.3.4].</li> <li>Outline Decommissioning Plan [EN010163/APP/6.3.4]).</li> <li>Outline Fire Risk Management Plan (FRMP) [EN010163/APP/6.3.4].</li> <li>Outline Supply Chain.</li> </ul>	Drafting and approval: Applicant      Implementation: Construction Contractor (once appointed)	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement
	None proposed to be needed  Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13].  Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].  PRoW Management Plan.  Outline Construction Traffic Management Plan (CTMP) [ENO10163/APP/6.3.13].  Construction Environmental Management Plan (CEMP) [ENO10163/APP/6.3.4].  PRoW Management Plan (CEMP) [ENO10163/APP/6.3.4].  PRoW Management Plan.  Outline CEMP [Appendix 4.1, [ENO10163/APP/6.3.4].  Outline Decommissioning Plan [ENO10163/APP/6.3.4]).  Outline Fire Risk Management Plan (FRMP)	None proposed to be needed  N/A  Outline Construction Traffic Management Plan (CTMP) [ENOI063/APP/6.3.13]. Construction Environmental Management Plan (CEMP) [ENOI063/APP/6.3.4]. PROW Management Plan.  Outline Construction Traffic Management Plan (CTMP) [ENOI063/APP/6.3.4]. Construction Environmental Management Plan (CEMP) [ENOI063/APP/6.3.4]. PROW Management Plan.  Outline Cemp [Appendix 4.1, [ENOI0163/APP/6.3.4].  Outline Decommissioning Plan [ENOI0163/APP/6.3.4].  Outline Fire Risk Management Plan (FRMP) [ENOI0163/APP/6.3.4].  Outline Fire Risk Management Plan (FRMP) [ENOI0163/APP/6.3.4].  Outline Supply Chain,	None proposed to be needed   N/A   N/A

	Plan [EN010163/APP/6.3.10].	Doubling and	A	D
Access and quality of services	• OSCESP [ENO10163/APP/6.3.10].	<ul> <li>Drafting and approval: Applicant</li> <li>Implementation: Construction Contractor (once appointed)</li> </ul>	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement
Macro-economic, environmental and sustainability factors	Outline Construction     Traffic Management Plan     (CTMP)     [EN010163/APP/6.3.13].      Construction     Environmental     Management Plan (CEMP)     [EN010163/APP/6.3.4].	<ul> <li>Drafting and approval: Applicant</li> <li>Implementation: Construction Contractor (once appointed)</li> </ul>	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement

Table 8.2: Recommendations, monitoring and evaluation of Proposed Development during the operational phase

Determinant	Recommended Mitigation or Enhancement Measure	Responsible party	Timeframe	Method of implementation
Lifestyles	None proposed to be needed	N/A	N/A	N/A
Social and community influences on health	Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6	Drafting and approval:     Applicant      Implementation:     Construction Contractor     (once appointed)	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement
Living / environmental conditions affecting health	Outline Fire Risk     Management Plan (FRMP)     [ENOI0163/APP/6.3.4]).	Drafting and approval:     Applicant	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement

	<ul> <li>Landscape and Ecological Mitigation Strategy [EN010163/APP/6.4.6].</li> <li>Flood risk enhancement works.</li> </ul>	Implementation:     Construction Contractor     (once appointed)		
Economic conditions affecting health	Outline Fire Risk     Management Plan (FRMP)     [EN010163/APP/6.3.4]).	Drafting and approval:     Applicant      Implementation:     Construction Contractor     (once appointed)	Approval prior to commencement of construction/ decommissioning (as relevant)	By requirement
Access and quality of services	Outline Supply Chain, Employment and Skills Plan (OSCESP) [EN010163/APP/6.3.10].	Drafting and approval –     Applicant      Implementation –     Construction Contractor	Approval prior to construction.	By requirement
Macro-economic, environmental and sustainability factors	Outline Operational     Management Plan (CEMP) [ENOI0163/APP/6.3.4]	Drafting and approval –     Applicant      Implementation –     Construction Contractor	Approval prior to construction.	By requirement

### 9. SUMMARY

- 9.1. This HIA has examined the demographic and health profile the Bassetlaw LPA area. It helps to show how the Proposed Development can positively affect and contribute to areas of need in the area.
- 9.2. Between 2013 and 2023, Bassetlaw's population grew by 7.7%. The East Midlands population saw higher growth over the ten-year period when compared to Bassetlaw, whereas Nottinghamshire and England population growth was lower. The fastest growing age group in Bassetlaw was the 65+ age bracket, which increased by 19.8% between 2013 and 2023.
- 9.3. Between 2015 and 2023, Bassetlaw experienced a rise in employment of 2.0% (1,000 jobs). Regional and national employment rates were much higher when compared to Bassetlaw at 6.2% and 8.9% respectively.
- 9.4. Overall, the health of Bassetlaw's population is in line with the South West and England. A lower proportion of Bassetlaw's population have very good health compared to regional and national averages, while a higher proportion experience bad or very bad health. The health profile of Bassetlaw is generally similar to Nottinghamshire, the East Midlands, and England. However, Bassetlaw has higher under-75 mortality rates from all causes and cardiovascular diseases and a higher suicide rate.
- 9.5. Bassetlaw 002B is in the top 40% least deprived areas and its highest rank in the barriers to housing and service domain (top 30% most deprived) and its lowest rank is in the education and training domain (top 30% least deprived). Bassetlaw 002E is in the top 30% least deprived areas, with its highest rank in the living environment domain (40% most deprived) and its lowest rank is in the crime domain (top 10% least deprived).
- 9.6. Following review of the baseline and consideration of the location, scale and nature of the Proposed Development, sensitive receptors were identified which relate to relevant disadvantaged / vulnerable groups or otherwise relevant general population groups who make use of the Site / surrounding area. These are as follows:
  - Children and adolescents (aged 0-15 years).
  - Older persons (aged 65 and over).
  - People on low incomes and those who are employed.
  - Pregnancy and maternal matters,
  - Existing residents in nearby communities.
  - People using existing / future services in the local area.
  - Existing businesses in local area.
  - On-site workers.

#### **Construction and Decommissioning Phase Summary**

- 9.7. During the construction phase, there is the potential for moderate negative impact on all identified sensitive receptors, with the exception of on-site workers, in respect of social and community influence on health. This relates specifically to the potential for a sense of local pride and neighbourliness to be negatively affected while construction and decommissioning are ongoing, as well as a potential for social isolation of people who may feel intimidated or unsafe as a result of construction and decommissioning activities. There is also potential for up to moderate negative impact on all identified sensitive receptors, including on-site workers, in respect of living/environmental conditions, specifically dust and noise during construction and decommissioning. A CEMP [ENO10163/APP/6.3.4] and CTMP [ENO10163/APP/6.3.13] is proposed that will help minimise any negative impacts during the build phase for all sensitive receptors.
- 9.8. Any potential risk to on-site workers or wider sensitive receptor groups in terms of health and safety associated with on-site construction / decommissioning activities and infrastructure, is considered to be low and not significant. Even so, the low risk will be mitigated further and managed through a number of management plans including Outline CEMP [Appendix 4.1, [ENO10163/APP/6.3.4] or Outline Decommissioning Plan [ENO10163/APP/6.3.4]) (dependent on phase of works), FRMP [ENO10163/APP/6.3.4], and CTMP [ENO10163/APP/6.3.13].
- 9.9. There is potential for a beneficial effect in terms of economic conditions affecting health as a result of temporary jobs during construction and decommissioning, identified as a major impact for people on low incomes and those who are unemployed, existing residents in nearby communities, existing business and on-site workers. This is further enhanced by commitment to supply chain employment and skills uplift outlined in the OSCESP [ENO10163/APP/6.3.10], ensuring the positive effects are a legacy benefit of the Proposed Development.
- 9.10. There is also potential for major positive impacts on all identified sensitive receptors from the generation of economic contribution related to the construction and decommissioning phases.
- 9.11. Existing PRoW within the Order Limits will be maintained throughout all phases of the development and there is an appropriate offset from the Trent Valley Way embedded into the design. Temporary closures of existing PRoW within the Order Limits are not anticipated, but, if in the unlikely event they are found to be needed during construction / decommissioning for health and safety purposes, temporary closures will be limited to the minimum duration required to ensure continued connectivity and managed through a PRoW Management Plan. In addition, there will be two new permissive paths implemented to connect existing Public Right of Ways (PRoWs). The permissive paths will operate during the life of the Proposed Development. This will ensure that the physical activity of local residents remains unaffected, providing accessible routes for walking, running, and cycling. By preserving these pathways, the development supports the community's physical health, wellbeing, and mental health benefits associated with outdoor exercise and recreation. Minor benefits are identified during the construction in respect of children and adolescents (O-15 years), older persons (aged 65 years and over), pregnancy and maternal matters, and existing residents and users in nearby communities.

#### **Operational Phase Summary**

- 9.12. Once the Proposed Development is operational, the majority of the impacts in relation to health and wellbeing are positive for all sensitive receptors, whether existing and future users of the Site and amenities in the study area.
- 9.13. In respect of social and community influences as well as living and environmental conditions, most potential impacts are identified as not significant. Relating to considerations associated with each of these determinants, the avoidance and minimisation of landscape and visual effects is managed through embedded design in term of layout as far as possible. Nevertheless, it is acknowledged that the change in land use, landscape, visual and recreational amenity impacts could result in an indirect effect on the mental health of some receptors, namely children and adolescents (O-15 years), older persons (aged 65 years and over), pregnancy and maternal matters, and existing residents and users in nearby communities. Nevertheless, mitigation proposed including PRoW Management Plan and Landscape and Ecological Mitigation Strategy [ENO10163/APP/6.4.6] will reduce the physical impacts as far as possible over time and, as such, should contribute to alleviating any indirect mental health impacts.
- 9.14. In respect of lifestyle determinant, negligible or minor beneficial effects are identified for all sensitive receptors. Access is expected to be maintained throughout the lifetime of the Proposed Development once operational, plus there will be two new permissive paths, all of which will be managed through a A PRoW Management Plan. Minimisation of risk-taking activity is intended to be managed through the creation of safe and well managed public and private amenity space.
- 9.15. In respect of access and quality of services, commitments to supply chain employment and skills uplift in the OSCESP [ENO10163/APP/6.3.10], ensure the positive effects are a legacy benefit of the Proposed Development. As such, it is expected that there will be moderate beneficial effects for people on low incomes and those who are unemployed, existing residents in nearby communities, existing business and on-site workers. All other sensitive receptors will experience a negligible impact on access and quality of services.
- 9.16. Major beneficial effects are identified for all sensitive receptors relating to macro-economic, environmental and sustainability factors. The operational phase will contribute to local economic development objectives, have a positive impact on GHG emissions, and is estimated to generate around £2million per annum in business rates over the 40-year lifespan.



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