

# **AESC Plant 3, IAMP Health Impact Assessment**

AESC UK Ltd

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# Contents

<b>1.0</b>	<b>Introduction</b>	<b>1</b>
	HIA Requirement	1
	Proposed Development	1
	Structure of this Report	1
<b>2.0</b>	<b>Assessment Methodology</b>	<b>3</b>
	Methodology	3
	Determinants, Pathways and Outcomes	4
	Significance Criteria	6
	Assumptions	7
<b>3.0</b>	<b>Policy Context</b>	<b>8</b>
	International Level	8
	National Level	8
	Sub-Regional and Local Policy	10
	Conclusion	14
<b>4.0</b>	<b>Determining the Impact Area</b>	<b>15</b>
<b>5.0</b>	<b>Baseline Context</b>	<b>18</b>
	Demographic Profile	18
	Crime and Community Safety	20
	Socio-Economic Indicators	22
	Health-Related Indicators	24
<b>6.0</b>	<b>Assessment of Impacts</b>	<b>27</b>
<b>7.0</b>	<b>Populations</b>	<b>29</b>
<b>8.0</b>	<b>Access to Healthy Food</b>	<b>31</b>
<b>9.0</b>	<b>Access to Open Space and Nature</b>	<b>32</b>
<b>10.0</b>	<b>Accessibility and Active Travel</b>	<b>34</b>
<b>11.0</b>	<b>Social Cohesion and Lifetime Neighbourhoods</b>	<b>37</b>

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<b>12.0</b>	<b>Air Quality, Noise and Neighbourhood Amenity</b>	<b>39</b>
<b>13.0</b>	<b>Crime Reduction and Community Safety</b>	<b>40</b>
<b>14.0</b>	<b>Access to Work and Training</b>	<b>42</b>
<b>15.0</b>	<b>Climate Change</b>	<b>46</b>
<b>16.0</b>	<b>Minimising the Use of Resources</b>	<b>47</b>
<b>17.0</b>	<b>Conclusions</b>	<b>49</b>
	Mitigation and Enhancement Measures	49

## 1.0 Introduction

1.1 This Health Impact Assessment (HIA) has been prepared by Lichfields on behalf of the Applicant, AESC UK ('the applicant'). The purpose of the HIA is to identify, assess and present any potential effects on the health of the population arising from the proposed development on land to the west of International Drive and north of the A1290 at the International Advanced Manufacturing Park ('IAMP'), Washington. Sunderland City Council is the relevant Local Planning Authority.

### HIA Requirement

1.2 Sunderland City Council ('the Council') has published guidance by way of the Health Impact Assessment Developer Guidance (February 2020), including a Health Impact Assessment Matrix. Therefore, this assessment combines Lichfields' own methodology, which draws upon a number of respected approaches<sup>1</sup> to undertaking assessments of health impact from development, with the HIA Matrix provided by the Sunderland City Council.

### Proposed Development

1.3 An application is being submitted for:

*"The erection of a building to be used for the manufacture of batteries for electric vehicles, an assembly & warehousing building, an office building, sub-stations, gatehouse, ancillary compounds / structures and associated infrastructure provision, access, parking, drainage, landscaping and engineering operations, with temporary site compounds and parking associated with construction of the development."*

1.4 The application site comprises of greenfield land to the west of International Drive and north of the A1290 at the International Advanced Manufacturing Park ('IAMP'), Washington. Detailed designs and layouts - set out within the Design and Access Statement and Planning Statement - have been prepared and accompany the application. Further details of the development can be found within these documents.

### Structure of this Report

1.5 The structure of the remainder of this report is as follows:

- **Section 2.0:** sets out the methodology applied in this assessment;
- **Section 3.0:** sets out the national, sub-regional and local policy context for the proposed development;
- **Section 4.0:** presents the analysis applied to determine the area of impact;
- **Section 5.0:** sets out the demographic, socioeconomic and health context of the area of impact;
- **Section 6.0 – 16.0:** considers the anticipated health impacts of the proposed development on the general population and identified vulnerable groups; and

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<sup>1</sup> Including those by World Health Organization, London Healthy Urban Development Unit, Martin Burley, Public Health England and the Welsh Health Impact Assessment Support Unit.

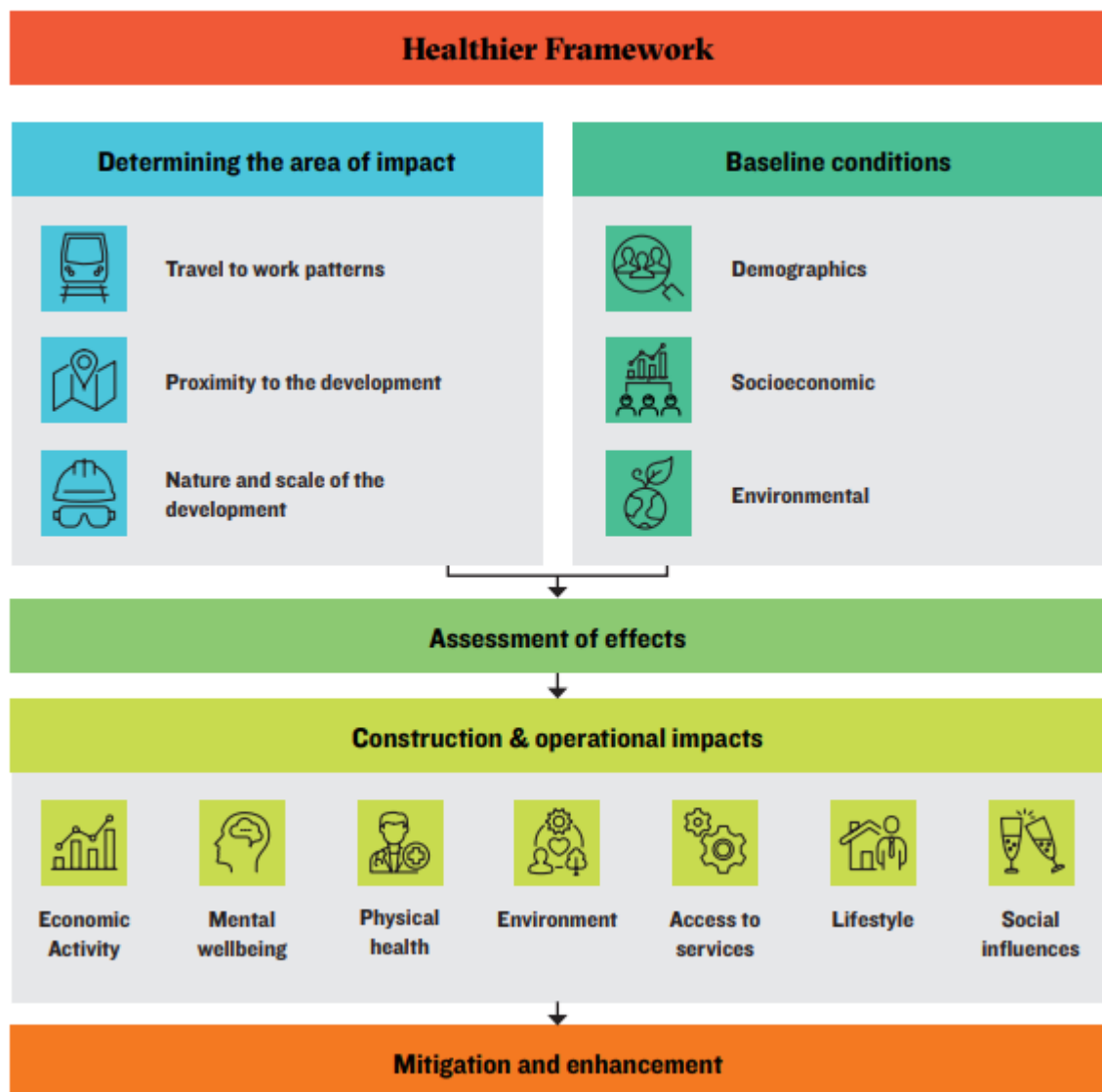
- **Section 17.0:** draws out the conclusions of the assessment.

## 2.0 Assessment Methodology

### Methodology

2.1 The report draws upon the Healthier framework developed by Lichfields which provides an analytical assessment of the anticipated health impacts of the proposed development (Figure 2.1). The framework is underpinned by Lichfields’ expertise in assessing the impact of new developments across a range of environmental and health contexts.

Figure 2.1 Health HIA framework



2.2 There is no single best practice methodology for undertaking health impact assessments in England. As such, the framework was informed by a blend of publicly available Health Impact Assessment guidance. This includes the following resources:

- Public Health England: Health Impact Assessment in spatial planning;
- Wales Health Impact Assessment Support Unit; and

- Healthy Urban Design Unit.

2.3 This assessment has also applied guidance from Sunderland City Council - Health Impact Assessment Developer Guidance (2020), which outlines a matrix of potential impacts that the development should be assessed. Lichfields has prepared a number of HIAs working with SCC officers, and the scope of this report reflects feedback received to date.

2.4 The framework first identifies which broad geographical area is likely to be impacted by the proposals. Key quantifiable data is then collected and applied to understand the existing conditions within the local area, which allows for analysis that demonstrates the anticipated impact of the development during the construction phase and upon completion.

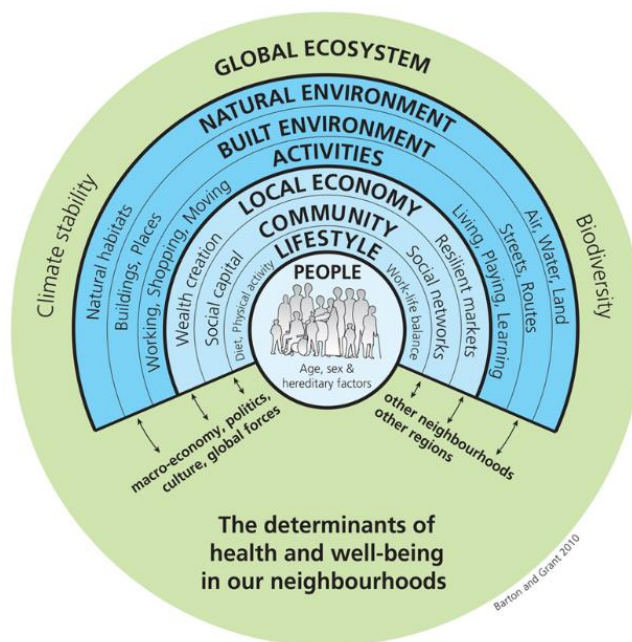
## Determinants, Pathways and Outcomes

2.5 The HIA identifies links between the new development and health using the determinants, pathways and outcomes approach. This process demonstrates the mechanism through which impacts can affect the health of the population during the construction and operational phases.

### Health Determinants

2.6 Health determinants are factors that can influence health outcomes. Factors may be personal, social, cultural, economic, and environmental and can affect both an individual’s physical and mental wellbeing. They include living and working conditions such as housing, employment, the environment, transport, education, and access to services. The Dahlgren and Whitehead Health Map (1991) seeks to conceptualise these factors and are regularly summarised by Barton and Grant’s 2006 health map at Figure 2.1.

Figure 2.1 Health Map



Source: Barton and Grant, 2010



## Health Pathways

- 2.7 Health pathways are the factors that form the link between determinants and health outcomes i.e. changes in a *determinant* impacts *health outcomes* through *pathways*. Pathways can be both direct and indirect, as well as positive and negative.

## Health Outcomes

- 2.8 Health outcomes reflect the range of physical, mental, and general wellbeing impacts on a particular population or individual. For the purpose of this assessment, health impacts are considered as potential changes in health outcomes arising from the proposed development.
- 2.9 Table 2.1 seeks to illustrate the relationship between health determinants,<sup>2</sup> pathways and outcomes. The table provides broad examples of pathways and outcomes linked to new developments.

Table 2.1 Health Determinants, Pathways and Outcomes

Determinants	Pathways	Outcomes
Lifestyles: Developments can impact lifestyle choices of the local population	Those who use the site – or nearby area – may be impacted on their ability to engage in physical activity and, as a result, may reduce their level of activity.	Reduced physical conditions and higher obesity rates, reduced mental health conditions etc.
Social and community influences on health: Individuals, and the decisions they make, can often be impacted and influenced by their social situation.	Developments that provide social spaces can improve mental health, reduce feelings of social isolation and exclusion, and the overall safety of the area.	Reduced mental health problems and improved community spirit.
Mental health and wellbeing Developments can cause impacts (temporary or permanent) that affect an individual’s mental wellbeing.	New employment opportunities associated with developments can increase participation in the community and reduce feelings of social isolation.	Improved mental health outcomes and overall confidence.
Living and environmental conditions affecting health: Developments can impact the living conditions in the local area, or alter the local environment.	Construction activities can have short-term negative impacts on air quality through increased dust from site works and emissions associated with plant and construction traffic.	Poor air quality can reduce life expectancy by 7-8 months as a result of long-term exposure to small particles, increases in air pollution can lead to increased cardiovascular and respiratory problems and mortality. Exposure to fumes from engines can also lead to higher incidences of cancer.
Economic conditions affecting health: New employment opportunities can be generated by the construction phase as well as the operational phase for various social groups.	Improved financial security through the uplift in wage associated with the new employment opportunities.	Reduced stress levels and anxiety by virtue of better financial security.
Access and quality of services	Increased population once a scheme is operational may increase demand for local social infrastructure such as	Reduced educational outcomes, overcrowding, reduced choice of services that are accessible.

<sup>2</sup> Determinants listed in this Table are influenced by the Health and Wellbeing Determinants Checklist guidance published by the Wales Health Impact Assessment Support Unit.

Determinants	Pathways	Outcomes
	healthcare and education facilities reducing their accessibility. Where appropriate, schemes may provide contributions or new facilities to offset this impact and benefit the local population.	
Macroeconomic, environmental and sustainability factors: Greenhouse gases can contribute to climate change; macroeconomic factors such as the cost of living can impact on an individual's ability to make choices that maximise their utility.	The construction phase can increase vehicle movements from construction vehicles. Embodied energy and carbon in construction materials can lead to an increase in fossil fuel use leading to an increase in greenhouse gas emissions. Sustainable design measures can reduce impacts on the environment. Reducing car usage should help decrease greenhouse gas emissions.	Climate change is an immediate and long-term threat to health and quality of life as a result of poorer air quality, prolonged heat waves and extremes of weather, such as more frequent storms, flooding, and drought events leading to, for example, increased fatalities, injury, infectious diseases, heat related deaths and incidences of skin cancer. In addition, the risks associated with energy and food security are likely to increase. Reduction in greenhouse gases will have a positive impact on health.

Source: Lichfields Analysis

## Significance Criteria

- 2.10 Taking the above information into account, it is clear that any development is likely to produce certain health impacts. Therefore, it is crucial to establish significance criteria to effectively evaluate and prioritise significant impacts, while avoiding overweighting those that are less so. This assessment will determine significance through two stages:
- 1 Sensitivity of the receptor; and
  - 2 Magnitude of effect.
- 2.11 Both stages will assess impacts based on the scale of change over the baseline position, as well as the nature and context of their effects. Where relevant, the location of the effect and its likely duration has been considered. In addition, it is important to consider the cumulative impacts that could arise from different development phases within the same project and impacts continued from other projects. In some cases, impacts cannot be quantified or measured, so the nature and context of the effects are considered more generally, taking into account of qualitative factors.
- 2.12 The duration of the build length is considered in the context of whether the effect is temporary or permanent. Due to their nature, construction effects are all considered to be temporary unless otherwise indicated. As such, the sensitivity of the local area to each impact during construction is adjusted to reflect the length of the build period. With reference to Lichfields' research on residential construction lengths – Start to Finish – it is anticipated the proposed development will be constructed over a 3 year period. This is considered to be short term for the purpose of this assessment. Consequently, the scale of the sensitivities for each impact assessed during construction has been adjusted downwards for all construction impacts. All operational effects are considered to be permanent unless otherwise stated.

2.13 Table 2.2 sets out the matrix that informs the judgement of the overall significance of the effect, ranking impacts from ‘substantial’ to ‘negligible’, where:

- Substantial: where the proposed development could be expected to have considerable effects (by extent, duration or magnitude) or of a more than local significance on the existing population and health profile;
- Moderate: where the proposed development could be expected to have a noticeable effect which may be considered significant on the existing population and health profile of the area;
- Minor: where the proposed development could be expected to result in a small or highly localised effect on the existing population and health profile of the area; or
- Negligible: where no discernible effect is expected as a result of the proposed development on the existing population and health profile of the area.

An effect that is of moderate or substantial significance is classified as ‘significant’.

Table 2.2 Matrix for determining the significance of effects

Magnitude of effects	Sensitivity of receptor			
	High	Medium	Low	Negligible
High	Substantial	Moderate	Minor	Negligible
Medium	Moderate	Moderate	Minor	Negligible
Low	Minor	Minor	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

Source: Lichfields

## Assumptions

2.14 In order to ensure the HIA process is transparent, it is important to acknowledge any assumptions the assessment has made. These include:

- Data sources: whilst the latest available data has been used, it should be noted that many data sources are frequently updated and could be subject to change since the time of drafting or during the course of the planning application process. However, under the circumstance that any data has been updated, it is assumed that there will not be significant deviation in the position of the local area relative to the data presented in this report.
- The assessment of effects is based on the description of the proposed development outlined in the Planning Statement.
- Where relevant, the assessment uses information that has been extracted from other assessments exogenous to this HIA. It therefore follows that any assumptions applied in other assessments are carried forward in this HIA.

## 3.0 Policy Context

- 3.1 A review of the legislative and planning policy framework has been undertaken to identify the issues and policies relating specifically to health. This section of the assessment summarises the key documents.

### International Level

- 3.2 The World Health Organisation ('WHO') promotes the use of HIAs as a means of assessing the health impacts of policies, plans, and projects in diverse economic sectors using quantitative, qualitative, and participatory techniques. The WHO considers that a HIA is a practical approach used to judge the potential health effects of a policy, programme, or project on a population, particularly on vulnerable or disadvantaged groups. Recommendations are produced for decision-makers and stakeholders, with the aim of maximising a proposal's positive health effects and minimising its negative health effects.

### National Level

#### National Planning Policy Framework (2023)

- 3.3 The National Planning Policy Framework ('NPPF') (revised December 2023) sets out the overarching policy priorities for the planning system in England, against which local plans will be prepared – and decisions made on – planning applications. The document highlights the economic, social and environmental dimensions of sustainable development and the roles that planning has in each dimension.
- 3.4 Health is intrinsic to sustainable development and interacts with each of the three strands of sustainability. This is evidenced through links to planning and health being developed continually throughout the Framework, including policies on transport, good design, climate change and the natural environment. Chapter 8 'Promoting healthy and safe communities', in particular, sets out how planning policies and decisions should aim to achieve healthy, inclusive and safe places which promote social interaction, are safe and accessible and enable and support healthy lifestyles.
- 3.5 The importance of the links between planning and health is further underlined by paragraph 8 of the Framework that sets out the social objective of the planning system:  
*"to support strong, vibrant and healthy communities...by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being".*
- 3.6 The NPPF therefore adopts the World Health Organisation broad definition of health:  
*"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."*
- 3.7 Paragraph 102 highlights the importance of access to a network of high-quality open spaces and opportunities for sport and physical activity for the health and well-being of communities and can deliver wider benefits for nature and support efforts to address climate change.

- 3.8 Paragraph 128(e) states that planning policies and decisions should support development that takes account of the importance of securing well designed, attractive healthy places.
- 3.9 Paragraph 135(f) states that planning policies and decisions should create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users.
- 3.10 Paragraph 191(a) states that planning policies and decisions should avoid noise from developments that would give rise to significant adverse impacts on health and the quality of life.

### **Planning Practice Guidance**

- 3.11 The Planning Practice Guidance 2019 is an online “living” source of planning guidance issued by the Department for Communities and Local Government. It sets out guidance across a range of planning issues, including Healthy and Safe Communities.
- 3.12 Paragraph 001 of the Health and Wellbeing section states that:  
*“The design and use of the built and natural environments, including green infrastructure are major determinants of health and wellbeing. Planning and health need to be considered together in two ways: in terms of creating environments that support and encourage healthy lifestyles, and in terms of identifying and securing the facilities needed for primary, secondary and tertiary care, and the wider health and care system (taking into account the changing needs of the population)” (Reference ID: 53-001-20190722).*
- 3.13 Furthermore, paragraph 003 sets out the Government’s vision of healthy places:  
*“A healthy place is one which supports and promotes healthy behaviours and environments and a reduction in health inequalities for people of all ages. It will provide the community with opportunities to improve their physical and mental health, and support community engagement and wellbeing”.*  
*It meets the needs of children and young people to grow and develop, as well as being adaptable to the needs of an increasingly elderly population and those with dementia and other sensory or mobility impairments” (Reference ID: 53-003-20191101).*

### **Public Health England: Health Impact Assessment in Spatial Planning**

- 3.14 Public Health England’s guide, ‘Health Impact Assessments in Spatial Planning’ (October 2020) describes the health and well-being outcomes that can be influenced or optimised as part of the plan-making and planning application process, in alignment with a number of HIA-themed guidance documents.
- 3.15 The guide sets out an evidence-based approach for preparing HIAs which includes establishing the baseline for the project, identifying HIA health outcomes, identifying specific population groups that could be affected, assessing the potential impacts of wider determinants of health as part of the scheme, and identifying recommendations for implementation and monitoring that will support positive health outcomes. It sets out that the extent of assessment within HIAs should be proportionate to the significance of impact of a proposed development.

## Sub-Regional and Local Policy

### Sunderland Core Strategy and Development Plan

- 3.16 The Sunderland Core Strategy and Development Plan ('CSDP') 2015-2033 was adopted by the Council on 30<sup>th</sup> January 2020. The CSDP sets out a policy framework that will guide and shape future development in Sunderland and aims to assist in tackling health inequalities and deprivation within Sunderland.
- 3.17 Analysis underpinning the issues identified in the CSDP highlights that residents of Sunderland generally experience a higher level of social and economic disadvantage than the England average and that there is a strong link between high levels of socio-economic disadvantage and poor health. The Plan highlights that, based on the 2015 Indices of Deprivation, Sunderland was ranked as the 37<sup>th</sup> most deprived of the 326 local authorities in England. Life expectancy in Sunderland also lags behind the England average.
- 3.18 The CSDP recognises that Sunderland residents continue to follow unhealthy lifestyles when compared to England as a whole. It links this to a range of social, economic and environmental factors (known within HIAs as the determinants of health).
- 3.19 The CSDP recognises that our health is influenced by the environment we live in and the opportunities we have to exercise and access health and other facilities. It also recognises the impact that opportunities for work and recreation, attractive environments, personal relationships and feelings of safety and being part of a community can have on a wider sense of well-being.
- 3.20 The Spatial Vision 2033 sees Sunderland as a place that, among other aspirations, is healthy, safe and prosperous. To achieve this, the Strategic Priority 3 is to "*promote healthy lifestyles and ensuring the development of safe and inclusive communities, with facilities to meet daily needs that encourage social interaction and improve health & wellbeing for all*".
- 3.21 The Plan proposes for HIAs to be a requirement for large-scale developments (Strategic Policy SP7: Healthy and safe communities). These assessments will be required at the outset of developing planning proposals or strategies to ensure health impacts are considered.
- 3.22 Policy SP7 (Healthy and safe communities) states that the Council seeks to improve health and well-being in Sunderland by promoting and facilitating active and healthy lifestyles and by, inter alia, ensuring that new developments:
- Are age friendly, inclusive, safe, attractive and easily accessible on foot or by bicycle;
  - Have a strong sense of place which encourages social interaction;
  - Are designed to promote active travel and other physical activities through the arrangement of buildings, location of uses and access to open space;
  - Promote improvements and enhance accessibility to the city's natural, built and historic environments;
  - Do not have unacceptable adverse impacts upon amenity which cannot be adequately mitigated;
  - Appropriately address any contaminated land to an acceptable level; and

- Submit a HIA as part of any application for large-scale development. Where significant adverse health impacts are identified, development should be resisted unless appropriate mitigation can be provided.

- 3.23 Policy HS1 (Quality of life and amenity) requires that development must demonstrate that it does not result in unacceptable adverse impacts which cannot be addressed through appropriate mitigation, arising through air quality, noise, dust, vibration, odour, emissions, land contamination and instability, illumination, run-off to protected waters or traffic. It states that development must ensure that the cumulative impact would not result in unacceptable adverse impacts on the local community and that development will not normally be supported where the existing neighbouring uses would unacceptably impact on the amenity of future occupants of the proposed development.
- 3.24 Policy HS2 (Noise-sensitive development) directs noise-sensitive development (including housing) to the most appropriate locations and seeks to protect against existing and proposed sources of noise.
- 3.25 Policy NE1 (Green and blue infrastructure) sets out the aim of the Council to maintain and improve the Green Infrastructure Network through enhancing, creating and managing multifunctional greenspaces and bluespaces that are well connected to each other and the wider countryside. The policy states that development should (inter alia):
- Incorporate existing and/or new green infrastructure features within their design and to improve accessibility to the surrounding area;
  - Link walking and cycling routes to and through the corridors, where appropriate; and
  - Include and/or enhancing formal and natural greenspace and bluespace provision.
- 3.26 Policy BH3 (Public Realm) outlines the aim to improve elements of the public realm that improves people’s health through creating inclusive environments that encourage people to walk, cycle and interact socially.
- 3.27 Policy ST3 (Development and transport) states that development should provide safe and convenient access for all road users, in a way which would not compromise the free flow of traffic on the public highway, pedestrians or any other transport mode, including public transport and cycling; or exacerbate traffic congestion on the existing highway network or increase the risk of accidents or endanger the safety of road users, including pedestrians, cyclists and other vulnerable road users. The policy also requires that development should incorporate pedestrian and cycle routes within and through the site, linking to the wider sustainable transport network.
- 3.28 Policy ID1 (Delivering Infrastructure) seeks to deliver new health and social infrastructure in accordance with priority needs.
- 3.29 Policy ID2 (Planning Obligations) seeks to secure planning contributions for infrastructures, including greenspace, play space, health, transport and education infrastructures.

**IAMP Area Action Plan (AAP) 2017 to 2032 (adopted November 2017)**

- 3.30 In accordance with policies and guidance from the NPPF and Sunderland Council, considerations with regard to health and well-being of users (employees) and the local population are incorporated in policies that shape the design of the IAMP. In addition to generating new jobs, the masterplan outlines the following features that will benefit health:

- Improving access and connectivity: Increased access to the site through sustainable transport networks and optimise access for cyclist and pedestrians within IAMP to encourage people to walk and cycle to work;
- Protect and improve Biodiversity: Protect important wildlife and habitats by steering development to less ecologically sensitive areas and mitigating subsequent loss of any habitats in these areas;
- Providing opportunities for recreation: Maintain and enhance connections into the Great North Forest Trail which passes through the IAMP AAP area. This will increase access to the countryside, particularly from neighbouring areas, and will increase opportunities for recreation, which can benefit the user’s health and well-being.

3.31 The Plan outlines a number of sustainability objectives which will be achieved through respective policies. Objective 10 – Improve health and well-being of people and communities – has five associated policies, including:

- T2: Walking, Cycling and Horse Riding – To promote walking and cycling, the development must ensure any new roads are designed safely for pedestrian and cycle movements, and designed to consider the needs of all types of users.
- T3: Public Transport – To promote sustainable transport, the development must include adequate provision of buses to key local areas.
- EN3: Green infrastructure – This policy outlines design features required to provide green and open spaces for recreational use within the development.
- EN4: Amenity – Proposals should not adversely impact the amenity of neighbouring occupiers and residents.

### **Sunderland Joint Strategic Needs Assessment (2023/24)**

3.32 The Joint Strategic Needs Assessment (JSNA) led by Sunderland City Council identifies the current and future health and wellbeing needs in Sunderland. It provides the City Council and its partners with the information they require to agree priorities and delivery services that meets needs across Sunderland.

3.33 The most recent published Assessment (2023/24) places focus on two overarching health categories – social determinants and commercial determinants. The former refers to the need to tackle poor health throughout life course, through interventions that prevent adverse behavioural, socioeconomic and physical conditions on health. Such issues include, but are not limited to: smoking, physical activity rates, and income rates. The latter refers to the provision of commercial entities that provide products or services that generate adverse health conditions.

3.34 Having regard to the above considerations, as well as a review of key health, social and socioeconomic existing conditions, the JSNA outlines a number of key health challenges. Those key to this assessment are:

- People in Sunderland have poor mental wellbeing and this also impacts on physical health;
- Poverty levels within the city continue to have an impact;
- Sunderland has higher levels of health risk than England as a whole. This is directly linked to a range of social, economic, commercial and environmental factors;
- Inequalities in the city have a significant impact on health;



- The cost of living crisis is hitting the poorest residents most significantly; and
- The wider impacts of climate change and levels of carbon in our atmosphere impact significantly on the local environment and on mental and physical health.

### **Sunderland Healthy City Plan (2020 – 2030)**

3.35 The Sunderland Healthy City Plan, published in 2021, builds upon the previously published Joint Health and Wellbeing Strategy. It sets out a vision to position Sunderland, by 2030, as a place where *“everyone will have healthy, happy lives, with no one left behind.”*

3.36 The Plan outlines three overarching pillars to achieve this vision: Starting Well; Living Well; and Ageing Well. These pillar are disaggregated into a further number of priorities. Those key to this assessment are:

- Create fair employment and good work for all;
- Ensure a healthy standard of living for all;
- Create and develop healthy and sustainable places and communities.

The Plan states that, should Sunderland realise these objectives, the City will attain:

- *“Increased fairness, with reduced health inequalities across the life course;*
- *More employers supporting employee health and wellbeing, including more real living wage employers; and*
- *More vulnerable people entering and sustaining employment.”*

### **Director for Public Health for Sunderland Annual Report (2022/23)**

3.37 The Director for Public Health for Sunderland Annual Report presents an overview of the health of Sunderland’s population with a particular focus on health inequalities and children and young people’s health. The most recently published report places focus on commercial determinants of health. Commercial determinants of health are summarised, by the report as:

*“Impacts from the corporate sector that influence the physical and social environments in which individuals live, work, play, learn and love – both positively and negatively. Commercial activities can contribute to economic growth, job creation, and improved standards of living, which can have positive impacts on health outcomes. On the other hand, commercial activities can also have negative impacts on health, such as through the promotion of unhealthy products and practices such as sugary drinks or processed foods, or through environmental degradation.”*

3.38 It notes that corporate influence impacts human health through four overarching channels:

- 1 Marketing, which enhances the appeal and acceptability of unhealthy commodities;
- 2 Extensive supply chains, which increase company influence around the globe reaching more people with ever more consumption choices;
- 3 Lobbying, which can influence policy barriers such as plain packaging and minimum drinking ages; and
- 4 Corporate social responsibility strategies, which can deflect attention.

- 3.39 Based upon the above information, the report then highlights the key commercial areas that commonly have (either positive or negative) impacts on health. Many of these relate to the food and drink sector, or alcohol, gambling and smoking, which is not considered relevant to this assessment. However, the report does outline that air quality and the use of fossil fuels has a relationship with health outcomes. This is both in the short term and the long term. The proposed development is expected to make a positive long-term contribution in this regard.
- 3.40 The report highlights that for both men and women, there is a life expectancy gap of 6 years between Sunderland and those areas of England with the highest life expectancy. Residents of Sunderland are also likely to spend more of their lives in ill-health, with both men and women living with illness or disability for up to 12 years more than in other areas of England.
- 3.41 One in five deaths in Sunderland is considered preventable, i.e. deaths caused by diseases (for example cancers and heart disease) known to be associated with behaviours such as smoking, regularly eating unhealthy foods, drinking too much alcohol and being physically inactive. Some of these behaviours start young; for example, by the time they leave primary school, 25% of children in Sunderland are obese, compared to 20% nationally.
- 3.42 The report highlights that resilience to unhealthy behaviours is normally associated with good living standards, better educational attainment, good quality employment and good mental well-being but that in Sunderland there are more people experiencing poverty and income deprivation than in other areas in England. People living in these conditions are more likely to take up unhealthy behaviours.

## **Conclusion**

- 3.43 It is clear from the legislative, policy and strategy framework there is a need to consider the health implications of decisions that are made. The use of a HIA methodology is a tool to help the decision-makers and stakeholders in that process. Sunderland Council is currently promoting the use of HIA as part of large-scale development proposals.
- 3.44 There are a number of local health policies and priorities for SCC that are of direct relevance to the Proposed Development. These repeat a number of influences upon health that are widely accepted to be determinants of health that should be assessed within any HIA.
- 3.45 In summary, these are considering whether the Proposed Development will:
- Increase physical activity and active travel through the provision of good quality, accessible open spaces, and enhancing environments to encourage walking and cycling and public transport;
  - Enhancing the quality of the natural environment and green infrastructure by providing opportunities for healthy lifestyle choices;
  - Promoting safe and sustainable public realm and residential environments which encourage social interaction and strong communities; and
  - Ensuring that pollutants, including noise and air pollution, and hazards detrimental to public health and residential amenity are addressed prior to development.

## 4.0 Determining the Impact Area

4.1 In assessing the potential impacts of the development, it is typical to define an Area of Impact (AOI) covering the population groups and locations that are anticipated to be most directly affected by the proposals. This area will form the primary focus for understanding the demographic, socioeconomic, and health profile of the community before assessing the impacts of the development. It is necessary, however, to allow for a level of flexibility in the AOI depending on the indicator – where appropriate, consideration of population groups both within and outside the AOI could be required.

4.2 An area of impact is typically defined using the following considerations:

- 1 The nature of the development;
- 2 The scale of the development;
- 3 The location of the development including whether there are any cross-boundary issues; and
- 4 The types of impact likely to be created during construction and operational phases.

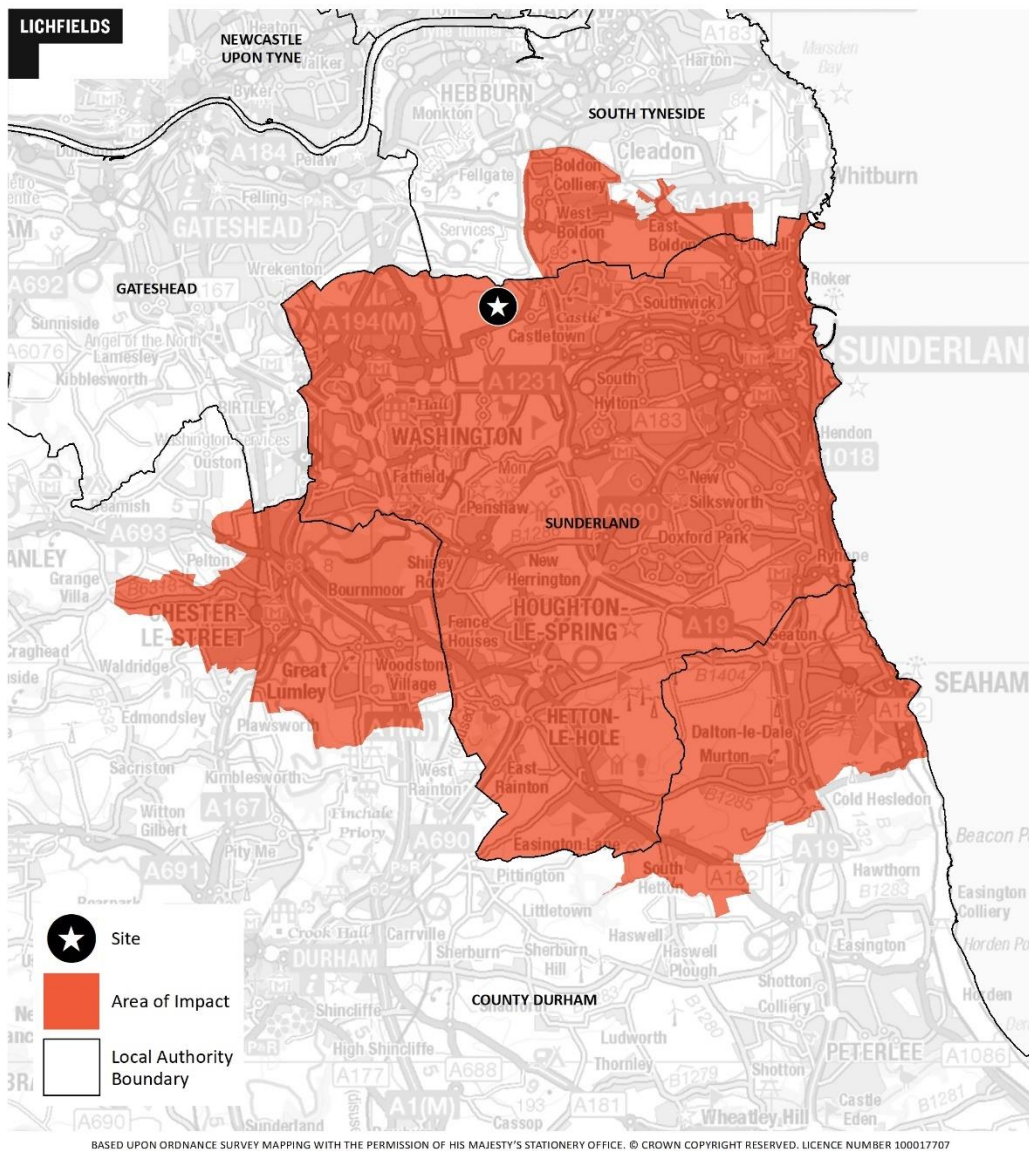
4.3 In determining the AOI, material weight was placed on the following considerations:

- **The scale of the development:** the proposed development comprises of industrial floorspace, which could reasonably be expected to support new employment opportunities. It is also necessary to consider the cumulative impact of the development to ensure the full extent of the potential impacts are identified. It is understood that the proposed development constitutes a wider package of industrial developments at the IAMP, and therefore the scale of the overall development could be significant. As such, it has been considered appropriate to capture Sunderland administrative area in its entirety, as well as key Middle Super Output Areas (MSOAs) of surrounding authorities, as identified below.
- **The types of impacts likely to be created during the construction and operational phases:** as stated above, it is likely that the proposed development could support new employment opportunities, which may be accessed by individuals who reside outside of the Sunderland City Council boundary. Census (2011) commuting data was used to gain an understanding of the areas people who work on the site Middle Super Output Area (MSOA) (Sunderland 007) most commonly travel from. This was used as a proxy to estimate where the individuals who may work at the proposed development currently reside.

The data indicates that 10,340 people work in the MSOA that contains the site (Sunderland 007), of which 41.8% live in Sunderland. The data also demonstrates that people travel to this MSOA from a number of locations for work outside of Sunderland, including neighbouring authorities, as well as MSOAs extending as far as Carlisle. To generate an area that best captures the impacts of the development, it was determined that a small number of key MSOAs from South Tyneside and County Durham should be selected by virtue of their proximity to the proposed development, as well as the number of residents that travel from such MSOAs to the site for work.

4.4 Based upon the above analysis, Table 4.1 outlines the MSOAs that have been considered for inclusion in the AOI. This geography is also illustrated in Figure 4.1. A full breakdown of the analysis underpinning the process of defining the AOI is provided in Appendix 1.

Figure 4.1 Area of Impact map



Source: Lichfields

Table 4.1 Assessment Area of Impact

Middle Super Output Area (MSOAs)	Sunderland 001 Sunderland 002 Sunderland 003 Sunderland 004 Sunderland 005 Sunderland 006 Sunderland 007 (site MSOA)
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	Sunderland 008 Sunderland 009 Sunderland 010 Sunderland 011 Sunderland 012 Sunderland 013 Sunderland 014 Sunderland 015 Sunderland 016 Sunderland 017 Sunderland 018 Sunderland 019 Sunderland 020 Sunderland 021 Sunderland 022 Sunderland 023 Sunderland 024 Sunderland 025 Sunderland 026 Sunderland 027 Sunderland 028 Sunderland 029 Sunderland 030 Sunderland 031 Sunderland 032 Sunderland 033 Sunderland 034 Sunderland 035 Sunderland 036 County Durham 007 County Durham 011 County Durham 013 County Durham 015 County Durham 016 County Durham 017 County Durham 018 County Durham 021 South Tyneside 021 South Tyneside 023
Local Authority	Sunderland
Wider Local Authority Impact Area	Sunderland County Durham South Tyneside
Region	North East

Source: Lichfields

## 5.0 Baseline Context

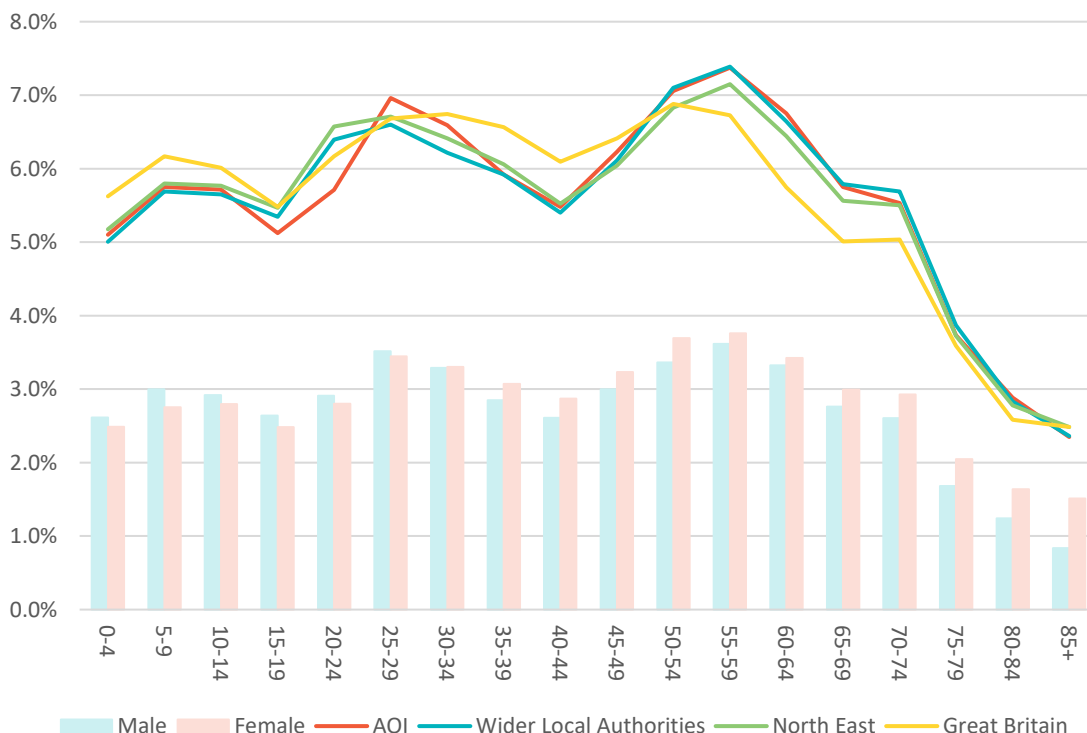
5.1 This section sets out the demographic, socio-economic and health context of the AOI. The data is presented, and indicators are benchmarked, against local authority, regional and national level data where appropriate and data availability permits. For some datasets, information is not available at an MSOA level. Where this is the case, it has been necessary to apply the local authority average as a proxy for the AOI.

### Demographic Profile

#### Age and Gender

5.2 The latest ONS Population Estimates<sup>3</sup> indicates that 357,094 people lived within the AOI in 2020. A breakdown of the data by age structure and gender is presented in Figure 5.1. With respect to the age structure, it demonstrates that the AOI broadly aligns with the corresponding age profiles across the wider local authority area and regionally. Indeed, 62.1% of the AOI population is aged 16-64 (working age), which is equal to the wider authority average and regionally. This proportion is slightly below that observed across Great Britain. Similarly, the proportion of residents that are aged 65 or above in the AOI (20.2%) is broadly similar to the wider local authority area (20.5%) and the North East (20.1%), but higher than Great Britain (18.7%).

Figure 5.1 Population of the AOI by 5-year age groups and gender<sup>4</sup>



Source: ONS Population Estimates: local authority based by single year of age (2020) / Lichfields analysis

<sup>3</sup> Population Estimates – Small area based by single year of age (2020)

<sup>4</sup> Data for gender is unavailable at a MSOA level. As a result, data has been collected at a local authority level (smallest possible level).

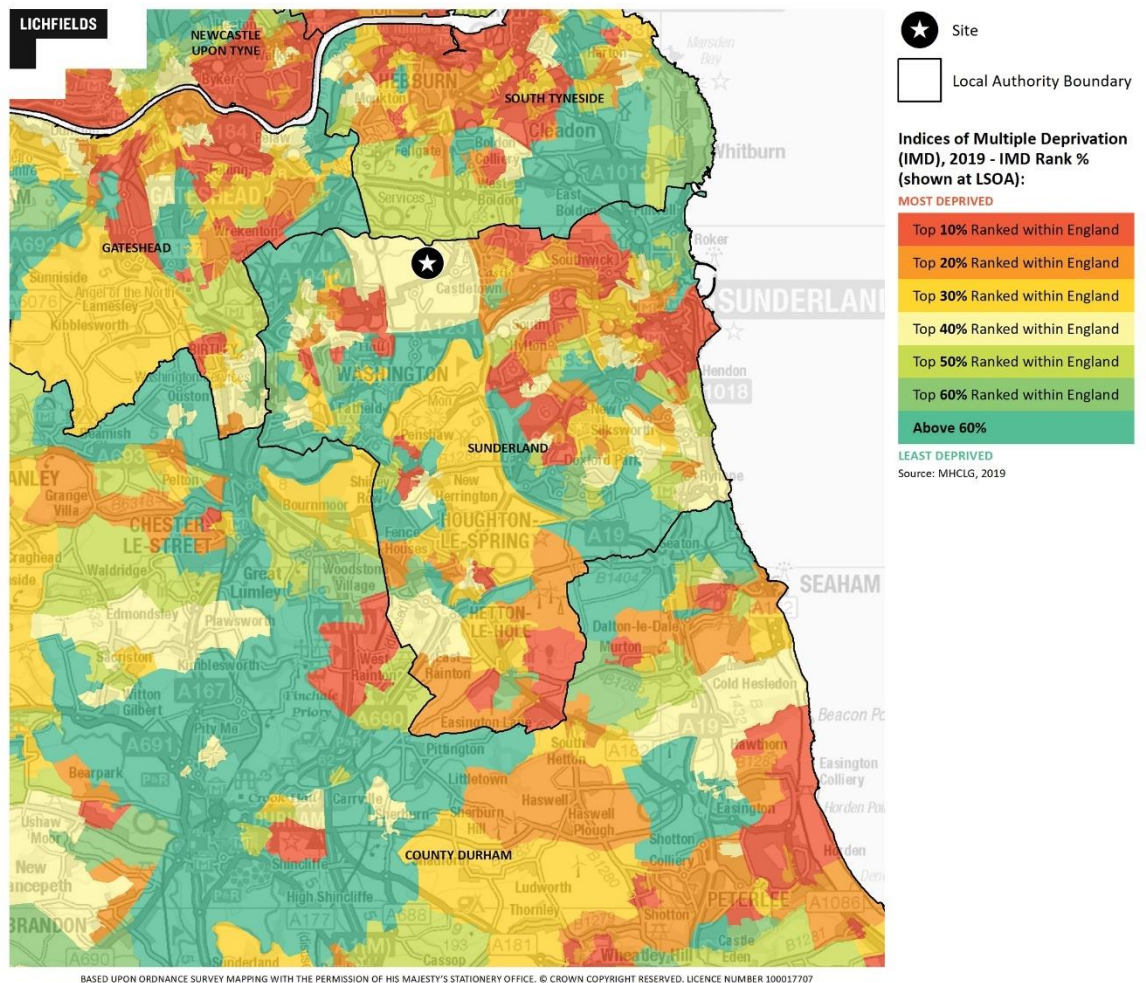
5.3 The same data indicates that the gender split in the AOI is broadly equal – 48.8% of the population is male and 51.2% is female.

### Deprivation

5.4 Deprivation is measured by the Index of Multiple Deprivation (2019) (IMD), which uses a series of indicators to rank areas across seven domains that range from income to health. These categories combined produce a multiple deprivation score for each local area. The IMD calculates deprivation as a proportion of the resident population of a given Lower Super Output Area (LSOA). As such, the Area of Impact MSOAs have been converted into 237 respective LSOAs.

5.5 IMD data across these LSOAs is demonstrated in Figure 5.2. A significant proportion (70.9%) of the LSOAs fall within the 50% most deprived nationally. Furthermore, 47 LSOAs (19.8%) in the AOI fall within the 10% most deprived nationally. In contrast, only 4 LSOAs (1.7%) fall within the 10% least deprived nationally. It is clear that higher concentrations of deprivation can be found to the east of the site.

Figure 5.2 Deprivation map



Source: IMD (2019) / Lichfields

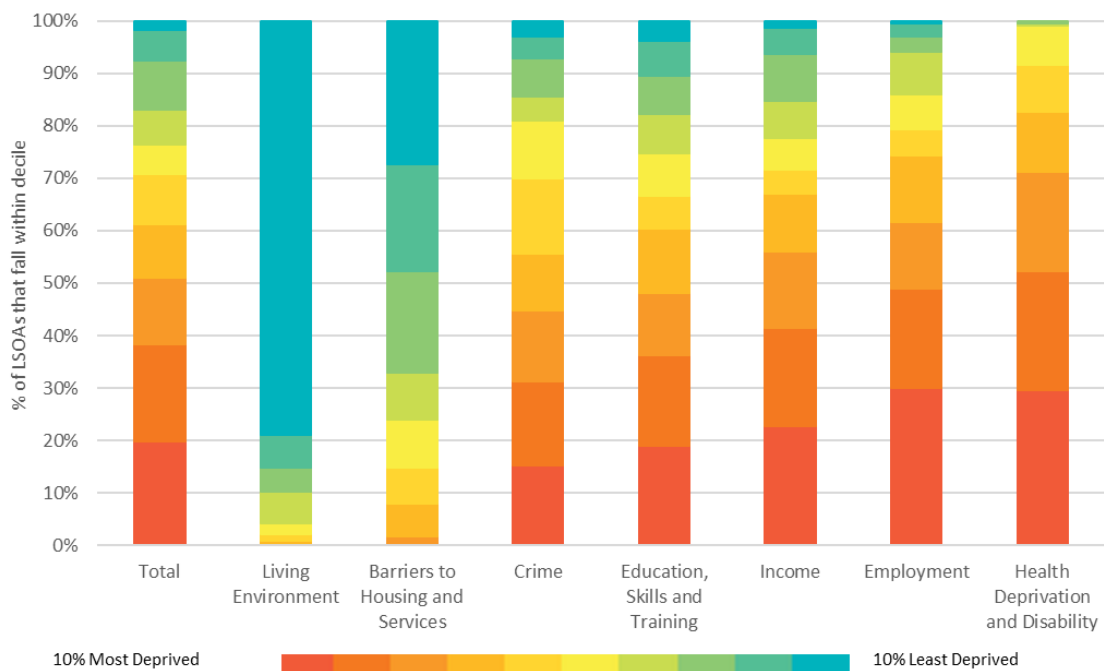
5.6 Figure 5.3 contains IMD data disaggregated by the individual deprivation domains across the AOI. It shows the proportion of LSOAs that fall within each decile, where 1 (red) indicates the most deprived decile and 10 (blue) indicates the least deprived decile. The performance of the AOI varies considerably across the indicators. It most evidently performs well with regard to:

- Living Environment: 97.9% of the LSOAs fall within the 50% least deprived LSOAs nationally, including 78.9% within the 10% least deprived. No Area of Impact LSOAs fall within the 30% most deprived.

5.7 In contrast, the AOI performs less well with regard to:

- Health Deprivation and Disability: 91.6% of the LSOAs fall within the 50% most deprived LSOAs nationally, including 29.5% that fall within the 10% most deprived. Only one Area of Impact LSOA falls within the 30% least deprived nationally; and
- Employment: 79.3% of the LSOAs fall within the 50% most deprived LSOAs nationally, including 30.0% that fall within the 10% most deprived. Only 0.4% of the LSOAs fall within the 10% least deprived nationally.

Figure 5.3 Deprivation by IMD indicator



Source: IMD (2019) / Lichfields analysis

## Crime and Community Safety

### Crime

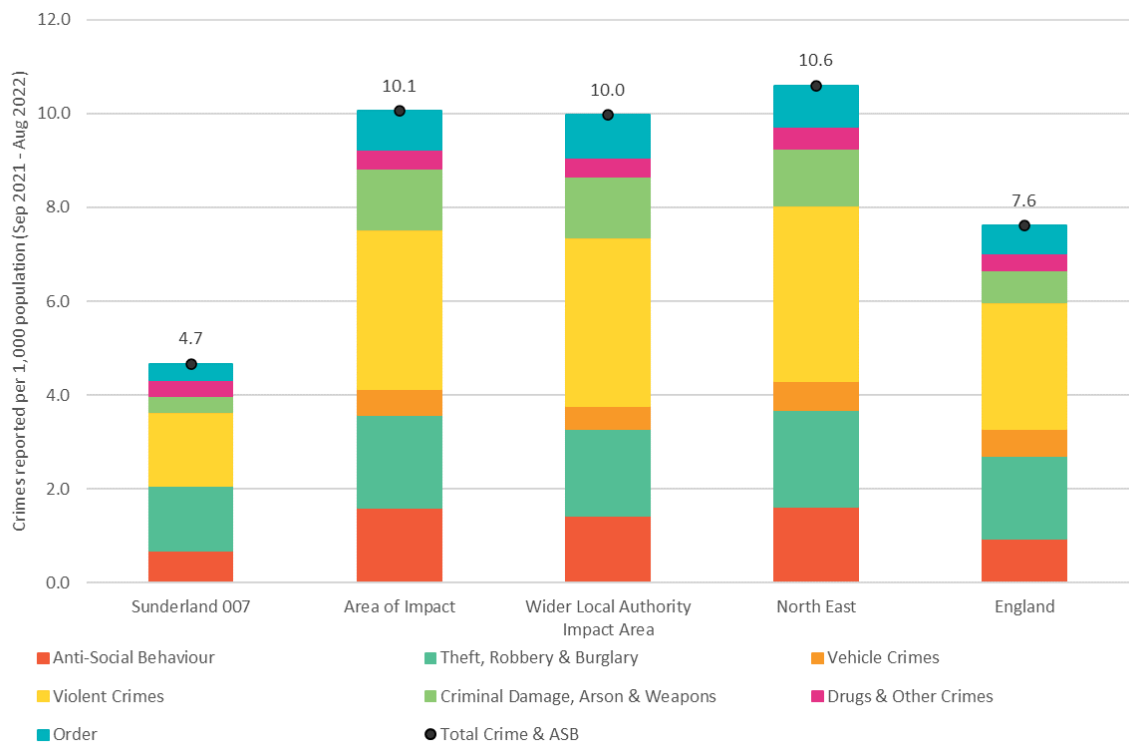
5.8 Data from UK Crime Stats<sup>5</sup> provides a breakdown of crime per 1,000 population by category of offense. This is illustrated in Figure 5.4 and demonstrates that:

<sup>5</sup> UK Crime Stats (January 2023)



- The AOI (10.1) has a broadly similar crime rate to the wider local authority area (10.0). This is slightly lower than the North East (10.6), but considerably higher than England (7.6). In contrast, the MSOA that application site is located within (Sunderland 007) has a considerably lower crime rate (4.7) than all comparator areas;
- Violent crimes account for the largest proportion of reported crimes across all analysis areas. This is particularly apparent within the AOI, where violent crimes account for 33.7% of all reported crimes (crime rate of 3.4). Violent crimes are also considerably higher in the wider local authority area (3.6) and the North East (3.7%) compared to England (2.7).

Figure 5.4 Reported crimes per 1,000 population, by type



Source: UK Crime Stats / Lichfields analysis

## Accident Rates

- 5.9 Data collected from UK Crime Stats shows there were seven reported accidents in 2021 within the MSOA the site is located in (Sunderland 007). This represents an accident rate of 1.2 per 1,000 population. This is broadly consistent with the rate observed across the AOI and the North East (both 1.1), lower than the national average (1.7), but higher than the wider local authority average (0.7).

## Socio-Economic Indicators

### Employment

- 5.10 Analysis of ONS data indicates that the total number of jobs in 2021 within Sunderland stood at 134,000, which is an increase of 5.5% relative to 2012<sup>6</sup>. This rate of growth is lower than the corresponding figures for the wider local authority area (11.2%), the North East (9.7%) and England (12.3%).
- 5.11 The same dataset provides a measure of the ratio of total jobs to working age residents in a given area (job density). The latest available data (2021) shows that Sunderland had a job density of 0.77, indicating that for every 100 working age residents there were 77 jobs. This is higher than the rates observed across the wider local authority area (0.66) and the North East (0.74), but lower than Great Britain (0.86).
- 5.12 Data collected from the Annual Population Survey (2022) highlights that the economic activity rate (the share of working age residents (16-64) either in or seeking employment) stands at 74.0% in Sunderland. This is lower than the average across the wider local authority area (75.1%), the North East (74.6%) and Great Britain (78.6%). The same data also shows that model-based unemployment in Sunderland in 2022 (4.3%) was lower than the wider local authority area (4.6%) and regional average (5.3%), but slightly higher than the national average (3.9%).

### Income

- 5.13 ONS data highlights that the median resident-based annual earnings in Sunderland stood at £27,549 in 2022. This is lower than the corresponding figures across the wider authority impact area (£29,312), the North East (£29,764), and Great Britain (£33,111). Workplace-based annual earnings in Sunderland stood at £28,219 in 2022, meaning those working in the authority earned slightly more than those living there. It should also be noted, however, that workplace-based earnings in Sunderland were slightly lower the average observed across the region (£29,521), and Great Britain (£33,106).

### Skills

- 5.14 Figure 5.5 provides a summary of the skills base of the resident population for Sunderland and the relevant benchmark areas. This illustrates that the AOI is characterised by<sup>7</sup>:
- A lower proportion of residents with NVQ<sup>8</sup> level 1 qualifications (79.2%) than in the wider local authority area (82.8%), the North East (85.0%) and Great Britain (87.5%).
  - A lower proportion of residents with NVQ level 2 qualifications (67.1%) than across wider local authority area (73.1%), regionally (75.0%), but lower than nationally (78.1%);
  - A lower proportion of residents with graduate level (NVQ level 4+) qualifications (24.7%) than the wider local authority area (29.8%), regionally (34.5%) and nationally (43.6%); and

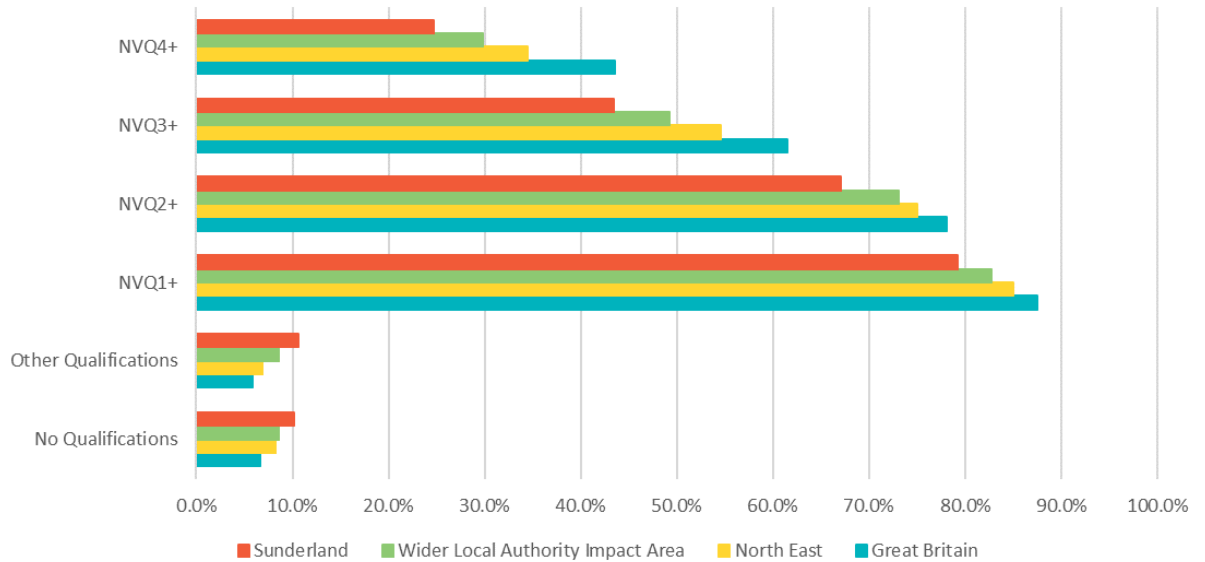
<sup>6</sup> ONS Job Density (2021)

<sup>7</sup> Annual Survey of Hours and Earnings (2022)

<sup>8</sup> National Vocational Qualification

- A higher proportion of residents with no qualifications (10.2%) than the wider local authority area (8.6%), regionally (8.2%), and nationally (6.6%).

Figure 5.5 Proportion of residents with qualifications



Source: Annual Population Survey (2021)

## Occupations

5.15

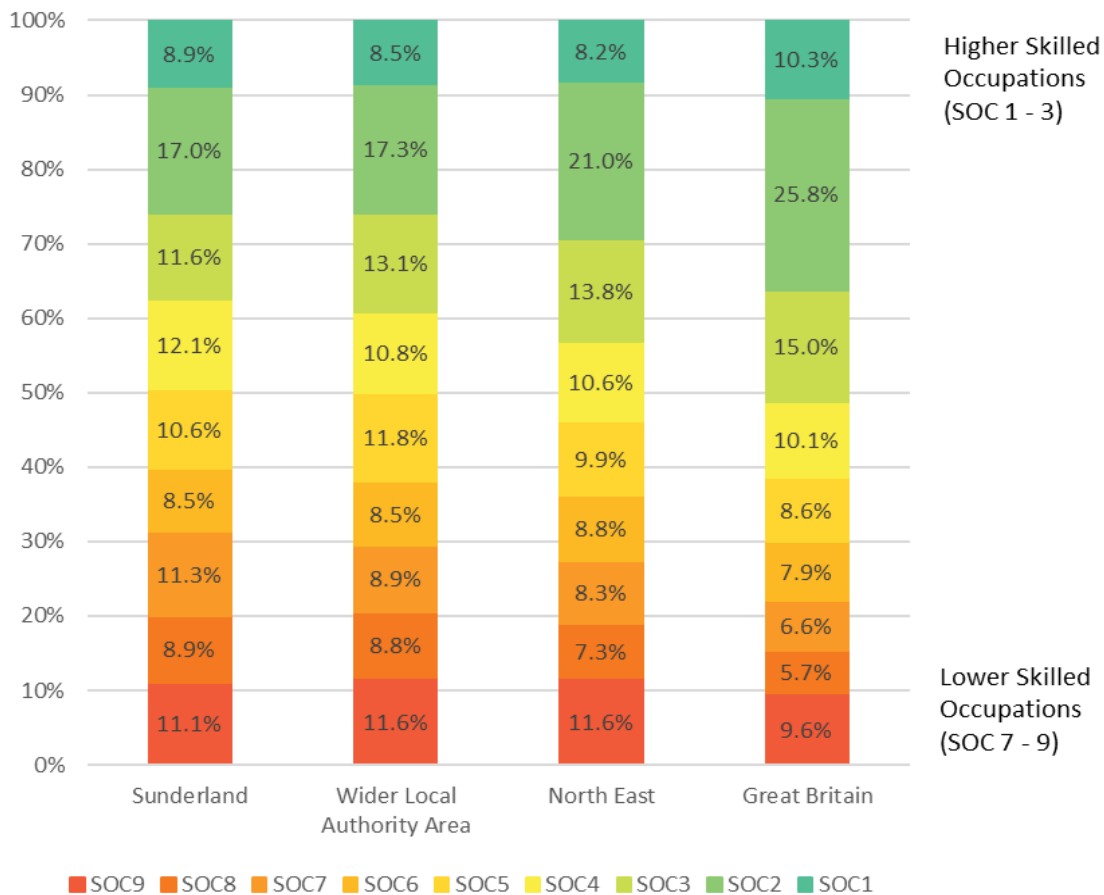
It can be seen from Figure 5.6, that the occupational base in Sunderland is characterised by<sup>9</sup>:

- 37.5% of residents that work in professional and technical roles, and managerial/directors roles (SOC1-3<sup>10</sup>). This is lower than the wider authority impact area (38.9%), the North East (43.0%) and national average (51.1%); and
- 31.5% of residents work in lower skilled jobs such as elementary occupations, process and machine operatives, and sales and customer services roles (SOC 7-9). This is higher than wider authority impact area (29.3%), the region (27.2%), and Great Britain (21.9%).

<sup>9</sup> Annual Population Survey (2022)

<sup>10</sup> SOC: Standard Occupational Code

Figure 5.6 Proportion of residents that work within SOC



Source: Annual Population Survey (2022) / Lichfields analysis

## Health-Related Indicators

### Adult and Child Health

5.16

Data from Public Health England provides health profiles of local authorities and covers a range of health indicators. It also provides data for the North East and England which can be used to benchmark the local authorities. Key data for child and adult health is provided in Table 5.2. It demonstrates that Sunderland performs favourably on one of the twelve indicators (infant mortality rate) when compared to the national benchmark.

Table 5.2 Child and Adult health indicators (Green/Red = performs better/worse compared to national average)

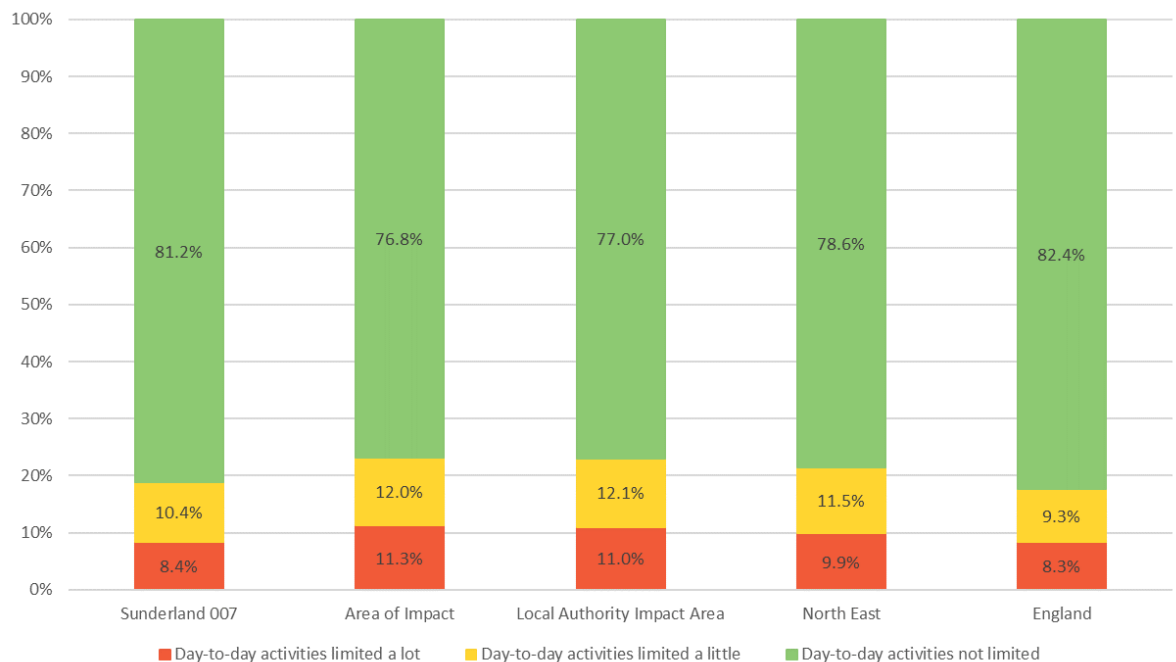
Indicator	Period measured	Sunderland	North East	England
Child Health				
Infant mortality rate	2018 - 20	3.1	3.5	3.9
Year 6: Prevalence of obesity (including severe obesity)	2019/20	23.6	26.1	23.6
Children in relative low income families (under 16s)	2020/21	30.8	29.6	18.5
Inequality in life expectancy at birth (male)	2018 - 20	11.3	12.5	9.7

Indicator	Period measured	Sunderland	North East	England
<b>Child Health</b>				
Inequality in life expectancy at birth (female)	2018 - 20	9.6	10.0	7.9
<b>Adult Health</b>				
Life expectancy at birth (male)	2018 - 20	76.6	77.6	79.4
Life expectancy at birth (female)	2018 - 20	80.9	81.5	83.1
Suicide rate	2018 - 20	23.2	20.2	15.9
Killed and seriously injured (KSI) casualties on England's roads	2020	99.2	71.4	86.1
Smoking Prevalence in adults (18+) - current smokers (APS)	2019	17.2	15.9	15.8
Percentage of physically active adults	2020/21	61.1	63.5	67.9
Percentage of adults (aged 18+) classified as overweight or obese	2020/21	69.1	69.7	68.5

Source: Public Health England Local Authority Profiles

## Disability

Figure 5.7 Long-term health problem or disability



Source: ONS Census Data (2021) / Lichfields analysis

5.17

Based on 2021 Census data, Figure 5.7 shows that 23.2% of the AOI has a long-term health problem or disability that limits the individual's day-to-day activities. This is broadly similar to the corresponding average across the wider local authority area (23.05), but higher than the North East (21.4%) and England (17.6%).

- 5.18 This data includes people who have their day-to-day activities limited a lot by their disability or health problem. In the AOI this stands at 11.3%, which is higher than the local authority impact area (11.0%), the North East (11.5%) and England (9.3%).

## 6.0 Assessment of Impacts

6.1 The proceeding sections (7.0 – 9.0) set out the assessments undertaken to consider the potential impacts of the proposed development on the determinants of health during the construction and operational phases of the development. Within the context of the proposed development, the determinants scoped into this assessment are as follows:

- 1 Populations;
- 2 Access to healthy food;
- 3 Access to open space and nature;
- 4 Accessibility and active travel;
- 5 Social cohesion and lifetime neighbourhoods;
- 6 Air quality, noise and neighbourhood amenity;
- 7 Crime reduction and community safety;
- 8 Access to work and training;
- 9 Climate Change;
- 10 Minimising the use of resources.

6.2 A detailed assessment for each determinant outlined above is provided in the proceeding Tables (Table 7.0 – Table 16.0). Each assessment is structured in the following format:

- Analysis of the overarching impact of the development on the general population. For the purpose of this assessment, each determinant is disaggregated by a number of ‘criteria’ in accordance with Sunderland City Council’s HIA guidance. Each indicator is assigned a level of significance, based upon the criteria set out in Section 2.0. The level of significance is colour-coded, as demonstrated in the table below. Where appropriate, mitigation and/or enhancement measures are recommended;

Table 6.1 Level of Significance - colour-coding system

Substantial Beneficial	
Moderate Beneficial	
Minor Beneficial	
Negligible / Neutral	
Minor Adverse	
Moderate Adverse	
Substantial Adverse	
Not Assessed	





## 7.0 Populations

Table 1

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Could population groups be affected differentially by the proposal?	It is reasonable to assume that many broad population groups could be impacted differently by the proposed development – this is also apparent at an individual level. In this assessment, considerations are made at a collective AOI population level and therefore may not apply precisely to the intricacies of every individual’s needs. Where significant deviations may be experienced for certain sub-population groups – for example, vulnerable groups, as detailed below – the impacts on these groups will be considered and stated separately.	-	-	-
Disabled people (includes physical disability, learning disability, sensory impairment, long term medical conditions, mental health problems)	In terms of the building design, level access will be provided into the building and dedicated wheelchair-accessible parking spaces are proposed near to the main entrance into the building. External surfaces will be chosen and lit to facilitate easy and safe access. The buildings will be designed and built out to comply with Building Regulations Document Part M (or any subsequent revision).	High	Low	Minor Beneficial
Minority ethnic people (includes Gypsy/ Travellers, non-English speakers) Refugees & asylum seekers People with different religions or beliefs	It is not anticipated that the proposed development will significantly, disproportionality impact these population groups.	N/A	N/A	N/A

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Vulnerable groups such as Lesbian, gay, bisexual. People living in poverty / people of low income. Carers (include parents, especially lone parents; and elderly carers)	<p>Vulnerable groups with regard to the proposed development have been identified through a review of local policies; relevant literature; considerations regarding the location and nature of the development; and baseline data. Vulnerable groups to be assessed in this HIA comprise:</p> <ol style="list-style-type: none"> <li>1. Economically inactive and people on low incomes;</li> <li>2. People with long term health conditions and disabilities; and</li> <li>3. Residents of homes located near the proposed development (1km radius) or working within key local services.</li> </ol> <p>Further detail regarding how the development may impact (1) is provided in Table 14.0 – Access to Work and Training. In summary, it is estimated that the proposed development will support a large number of employment opportunities during construction and operation, and uplift local wages. If those on low incomes access higher pay through employment at the development, it could unlock the potential for better living conditions through accessing healthier food, better housing conditions and luxury/higher quality items. It is also noted that apprenticeship opportunities are currently being advertised by AESC, which could provide individuals with a foundation to enter employment.</p> <p>Detail regarding how the development may impact (2) is provided above.</p> <p>With regard to impacts on vulnerable group (3), key impacts are expected to be limited to: Noise; Air Quality; Transport. Further detail on each of these impacts is provided in the relevant sections below.</p>	High	Vulnerable Group (1) – Medium	Vulnerable Group 1 - <b>Moderate Beneficial</b>
			Vulnerable Group (2) – As above	Vulnerable Group (2) – As above
			Vulnerable Group (3) –	Vulnerable Group (3) – Negligible

## 8.0 Access to Healthy Food

Table 2

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal facilitate the supply of local food, e.g. community farms and farmers' markets?	N/A	N/A	N/A	N/A
Does the proposal encourage or discourage people from making healthy food choices and/or growing their own food?	<p>Based upon a review of the local area, there is a limited number of existing foodstores in close proximity to the application site. Indeed, no foodstores are located within a 1km walking distance to the site, with a small number of options within a 2km radius. With reference to the Institution of Highways and Transportation guidance<sup>11</sup>, for non-commuter journeys, a 0.8km walking distance is considered to be 'acceptable' with a maximum recommended walking distance of 1.2km. As such, no foodstores are located within the maximum recommended walking distance.</p> <p>Notwithstanding, the proposed development is not expected to influence the diet and nutrition of employees working on site.</p>	Medium	Negligible	Negligible
Is there a range of retail uses, including food stores and smaller affordable shops for social enterprises?	N/A	N/A	N/A	N/A
Does the proposal avoid contributing towards an over-concentration of hot food takeaways in the local area?	N/A	N/A	N/A	N/A

<sup>11</sup> The Institution of Highways and Transportation – Guidelines for Providing for Journeys on Foot

## 9.0 Access to Open Space and Nature

Table 3

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal retain and enhance existing open and natural spaces?	<p>The proposed development will be built existing private farmland. It is understood there is no existing public access to the site. As such, there is no anticipated loss of open space.</p> <p>The landscape strategy has been designed to include a mixture of habitats including species rich neutral grassland, shade tolerant neutral grassland, flood meadows, wet woodland mix, water scrapes, native trees and enhancement of existing hedgerows to provide a rich and diverse range of habitats for a range of species.</p>	Low	Negligible	Negligible
In areas of deficiency, does the proposal provide new open or natural space, or improve access to existing spaces?	Given the nature of the proposed development, no new formal areas of open space are proposed. Further, the development is not expected to lead to any increase/decrease in existing provision.	N/A	N/A	N/A
Does the proposal provide a range of play spaces for children and young people?	N/A	N/A	N/A	N/A
Are the open and natural spaces welcoming and safe and accessible for all?	N/A	N/A	N/A	N/A
Does the proposal set out how new open space will be managed and maintained?	N/A	N/A	N/A	N/A
Does the proposal create an environment that promotes or hinders physical activities such as sport, active play and active travel?	As outlined above, the application site is on land that is not currently accessible to the public, and therefore there will be no loss of space for individuals looking to engage in physical activities. For individuals who use the adjoining roads, it is noted there may be some disruption during the construction phase, which may require such people to find an alternative route. However, given the construction works that have been ongoing around the site on other phases of the development, it is likely that many	Medium	Neutral/ Negligible	Neutral/ Negligible

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	<p>individuals will already have identified alternative routes. On balance, the magnitude of change caused by the development is considered to be either negligible or neutral; both conclusions, however, lead to the same overarching judgement.</p> <p>As outlined in further detail in Table 10.0, the proposed development will facilitate people walking and cycling to the site once operational. This section also indicates that the AOI has a medium sensitivity in relation to physical activity. This has also been applied for the purpose of this criteria.</p>			

10.0

# Accessibility and Active Travel

Table 4

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal prioritise and encourage walking (such as through shared spaces?)	The proposed development will be connected to pedestrian links to encourage the use of walking as a means of sustainable transport.	Medium	Negligible	Negligible
Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes)?	The Scheme includes a comprehensive travel plan for workers and visitors and makes provision for cycle parking and changing facilities for staff	Medium	Low	Minor Beneficial
Does the proposal connect public realm and internal routes to local and strategic cycle and walking networks?	The proposal includes connection to the wider road and footpath network around IAMP. There is a separate planning approval for improvements to the A1290 and associated junction improvements. These include improvements to the pedestrian and cycle network and also wider public transport strategy for IAMP as a whole. The A1290 dualling works are due to start in April 2024.	Medium	Low	Minor Beneficial
Does the proposal include traffic management and calming measures to help reduce and minimise road injuries?	The scheme connects to the wider transport network including the enhanced A1290, the works to the A1290 were going through a Road Safety Audit process, in conjunction with Sunderland City Council, South Tyneside Council and National Highways, at the time of preparing this assessment. The internal road and access for the scheme will be carefully managed, with reduced speed limits to minimise the risk of road injuries.	Negligible	Negligible	Negligible
Is the proposal well connected to public transport, local services and facilities?	The potential for public transport trips is significant as a 30-minute travel journey from the A1290 bus stops covers north Sunderland, Washington, parts of Pelaw, parts of Hebburn, South Shields, Southwick and Castletown. This includes a number of bus stops for the 50 and 56 services along the A1290 to the south of the site, less than a 'desirable' 500m maximum walking distance from the site <sup>12</sup> . Other bus stops can be found along the A184 to the north, providing access to additional services such as the 558	Low	Neutral	Neutral

<sup>12</sup> In accordance with guidance from the Institute of Highways and Transportation

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	<p>and X10, although it is noted that these stops are outside of the maximum recommended walking radius of 2km.</p> <p>Bus services 50 and 56 offer a 30-minute and 15-minute frequency respectively Monday to Saturday (on Sunday, the frequency of service is 60 minutes and 20 minutes respectively). Given the expected uplift in employment on the application site (see Table 14.0), demand for such services could increase substantially. Without further information regarding existing demand of these services, it is not possible to state what the impact of such uplift could be, but is likely to range between:</p> <ul style="list-style-type: none"> <li>• Existing provision being under-utilised, and therefore the uplift supports the viability of existing provision; to</li> <li>• Existing provision being over-demanded, and therefore could have difficulties accommodating any uplift without more a frequent service. This is likely to have short term adverse impacts, but longer term benefits.</li> </ul> <p>It is also noted that the wider IAMP developments include improvements to existing infrastructure. This includes the provision of new bus stops on the A1290, and proposals to create a 'bus gate' by connecting Follingsby Lane to the IAMP. This infrastructure will facilitate possible future east-west bus services between the IAMP and Follingsby Park.</p> <p>The uplift in demand is expected to translate to a medium magnitude of change. However, given the uncertainty regarding the current capacity on existing services, it is not possible to determine whether such impact is positive or negative. As such, it has been necessary to conclude on a neutral impact. The wider public transport strategy for IAMP is being reviewed by the Councils working with Nexus to see how sustainable access can be enhanced to IAMP moving forward.</p> <p>The AOI is estimated to have a medium sensitivity with respect to access to transport. This is based upon the following considerations:</p> <ul style="list-style-type: none"> <li>• The existing provision of transport services in the near vicinity, as outlined above; and</li> <li>• Crime deprivation locally.</li> </ul>			

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	As such, despite the lack of certainty regarding the magnitude of change, the overarching impact of the development is not expected to be significant by virtue of this low sensitivity.			
Does the proposal seek to reduce car use by reducing car parking provision, supported by the controlled parking zones, car clubs and travel plans measures?	The scheme includes controlled parking for staff and vehicles, as well dedicated EV charging facilities. The finalised Travel Plan seeks to ensure modal split targets are met and a Travel Plan coordinator will be put in place to monitor performance over time.	Medium	Neutral	Neutral
Does the proposal allow people with mobility problems or a disability to access buildings and places?	The scheme includes disabled parking facilities and access to the building for mobility impaired where needed.	High	Negligible	Negligible



11.0

# Social Cohesion and Lifetime Neighbourhoods

Table 5

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal connect with existing communities, e.g. layout and movement which avoids physical barriers and severance and land uses and spaces which encourage social interaction?	<p>Intrinsically, employment spaces generate a level of social interaction between colleagues. This could be both during working hours, as well as during lunch breaks.</p> <p>Given the nature of the development (industrial use), it is otherwise not considered applicable to be providing social spaces onsite, such as the provision of commercial spaces or natural spaces. For security and safety, the site will be enclosed by fencing. As such, if social spaces were to be provided onsite, it would not be considered appropriate to open this space to the public. Consequently, it is considered that the proposed development will have a negligible change on this criteria.</p> <p>The AOI is estimated to have a low sensitivity with respect to increasing areas of social interaction. This is based upon the following considerations:</p> <ul style="list-style-type: none"> <li>• IMD Living Conditions and Barriers to Access and Services; and</li> <li>• Employment conditions, including the number of people seeking employment in key roles and the proportion of people economically active.</li> </ul>	Low	Negligible	Negligible
Does the proposal include a mix of uses and a range of community facilities?	The application is for a gigafactory for the manufacture of batteries and hence the proposal does not include a mix of uses or any community facilities.	N/A	N/A	N/A
Does the proposal provide opportunities for the voluntary and community sectors?	As indicated above, the application relates to a gigafactory for the manufacture of batteries and hence the proposal does not include opportunities for the voluntary and community sectors.	N/A	N/A	N/A
Will the proposal have an impact on community spirit, community interaction or health inequalities?	As outlined in Table 14.0, the proposed development will generate a significant number of employment opportunities. These jobs are likely to be spread across a number of roles and qualification levels, therefore providing opportunities for a wide range of members of the public. Further, these opportunities are also likely to uplift wages in the local area, which	Medium	High	<b>Moderate Beneficial</b>

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	<p>could have an impact on health inequalities. Having regard to an indicative breakdown of roles supported by industrial developments once operational<sup>13</sup>, as well as the average annual salary for such roles<sup>14</sup>, it is estimated that the proposed development could uplift wages by £33.8m per annum.</p> <p>It is widely demonstrated in health literature that income has a strong relationship with health outcomes. Increased income provides individuals with the opportunity to purchase better quality goods and services; improve access to housing; and reduce financial stress. This impact will be particularly strong if it is access by individuals that are currently seeking employment. As a result, the proposed development is considered to have a high magnitude of change on this criteria.</p> <p>The AOI is estimated to have a medium sensitivity with respect to inequality factors, based upon the following considerations:</p> <ul style="list-style-type: none"> <li>• IMD Deprivation; and</li> <li>• Local authority income rates; and</li> <li>• Inequality in life expectancy at birth.</li> </ul>			
<p>Consider whether the proposal will impact on the supply of alcohol and tobacco? Will it create an environment that discourages illegal sales and use?</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	

<sup>13</sup> Including managers; professionals and associate professionals; skilled electronic and metal trades; and machine and transport operatives.

<sup>14</sup> Annual Survey of Hours and Earnings: Annual Pay – United Kingdom

12.0

# Air Quality, Noise and Neighbourhood Amenity

Table 6

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal minimise construction impacts such as dust, noise, vibration and odours?	An air quality chapter has been prepared by Wardell Armstrong. A construction phase dust risk assessment has concluded that there is a risk of potential disamenity dust and fine particulate matter releases associated with the earthworks, construction and trackout activities during <b>construction</b> of the development. As such, mitigation measures to control and limit dust generation during construction would be outlined in a Dust Management Plan (DMP) within the Construction Environmental Management Plan (CEMP) which will ensure that the potential for dust and fine particulate matter arising from construction activities will be minimal and will be controlled.	Medium	Low	Minor Adverse
Does the proposal minimise air pollution caused by traffic and energy facilities?	A transport and air quality assessment has been carried out to assess the impacts of traffic movements in both the construction and operational phases of the proposed development. The assessments concluded that the impact at existing sensitive receptor locations would be Not Significant. However, the mitigation measures could further reduce any air quality impacts.  It must also be noted that the proposed development will play a wider role in supporting the transition away from petrol cars towards battery vehicles, which is likely to have a longer-term role in improving air quality. It is predicted that the proposed development could save the equivalent of 130,345 tCO2e per year through displacing petrol and diesel vehicles for EVs. This is a most significant reduction in CO2 emissions.	Medium	Neutral	Neutral
Does the proposal minimise noise pollution caused by traffic and commercial uses?	A noise assessment has been undertaken for the construction and operational phases of the proposed development. The effects of noise and vibration during construction was found to be Not Significant and no specific mitigation measures are required.  The effects of noise on sensitive receptors during operation are predicted to be low with mitigation in place and Not Significant.	Medium	Low	Minor Adverse

13.0

# Crime Reduction and Community Safety

Table 7

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal incorporate elements to help design out crime?	<p>The proposed development will incorporate similar design features to the existing/pipeline industrial units at IAMP. This includes:</p> <ul style="list-style-type: none"> <li>• Operating on a 24/7 basis therefore supporting natural surveillance. When combined with security fencing and barriers, this acts as a natural deterrent for crime and antisocial behaviour;</li> <li>• CCTV around the development to further enhance surveillance; and</li> <li>• Appropriate lighting along access roads, within the site car park, and along footpaths and cycleways.</li> </ul> <p>This is expected to correspond to a low magnitude of change.</p> <p>The AOI is estimated to have a medium sensitivity with respect to crime and community safety, taking into account the crime rate and crime deprivation in the AOI. Although, this sensitivity is perhaps less prevalent in the immediate surrounding area to the application site, as indicated by a low crime rate in the application site MSOA (Section 5.0).</p>	Medium	Low	Minor Beneficial
Does the proposal create a safe and inclusive environment that acts to prevent accidents and discourage crime and antisocial behaviour?	<p>As outlined above, a number of design measures have been considered to discourage crime and antisocial behaviour. Given the nature of the use, the site will be surrounded by a 2.4m high security fence.</p> <p>Appropriate lighting onsite, in combination with natural surveillance is often a sufficient deterrent to unwelcome visitors. Moreover, by restricting access to the site to specific individuals, this is likely to further limit the potential for unwanted activity. Given the wider context of the site – that is, part of the wider IAMP development – it is unlikely that this phase of the development is likely to cause any deviation from the outcome of other phases.</p>	Medium	Low	Minor Beneficial

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	On this basis, the magnitude of change is considered to be low. As indicated above, the AOI is estimated to have a medium sensitivity to change in relation to crime and community safety.			
Has engagement and consultation been carried out with the local community?	A Consultation Statement has been prepared by Lichfields to accompany the planning application. It notes that engagement has been carried out with a number of key consultees and council officers. Given the commercial sensitivity and national importance of the scheme, wider community consultation has been restricted prior to application submission. Statutory consultation led by the Local Planning Authority will commence following submission of the application.	N/A	N/A	N/A

14.0

# Access to Work and Training

Table 8

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
<p>Does the proposal provide access to local employment and training opportunities, including apprenticeships and volunteering?</p>	<p><b>During Construction</b>                      With reference to the Socio-Economic Chapter of the Environmental Statement, the proposed development is expected to support 2,975 direct and indirect Full Time Equivalent (FTE) jobs per annum during the construction phase (1,525 direct FTE and 1,450 indirect FTE).</p> <p>Further, the construction procurement process involves contractors demonstrating a commitment to providing a social value uplift locally. As the contractor for the construction phase has not yet been determined, it is not possible to state any specific commitments made. However, based upon Lichfield's' experience of working with contractors, such commitments typically involve the provision of apprenticeship and graduate opportunities. Based upon a review of Annual Population Survey data (2021), approximately 3.4% of the workforce in Sunderland is in a training or apprenticeship opportunity. The application of this to the 2,975 direct and indirect construction FTE jobs estimated above indicates that 101 FTE training and apprenticeship opportunities could be supported per annum throughout the construction phase of the proposals. It is noted, however, that such opportunities are more frequently available in the construction industry than other sectors. As a result, the estimate outlined above could be considered an underestimate.</p> <p><b>During Operation</b>                      AESC has advised that initially there will be around 1,000 staff on-site and this could increase to up to 1,911 jobs. The Socio-Economic Chapter has calculated that the operations will support a further 800 indirect and induced FTE jobs in the wider region. This employment is likely to comprise of a number of graduate positions and, intrinsically, will provide on-the-job learning and experience for all employees. It is also noted that apprenticeship opportunities are currently being advertised by AESC, which could provide individuals with a foundation to enter employment.</p>	<p>Medium</p>	<p>High</p>	<p><b>Moderate Beneficial</b></p>

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	<p>The jobs / apprenticeships / training situation is summarised as follows:</p> <ol style="list-style-type: none"> <li>1. The new jobs be at level 2-5 and will include apprenticeships with support from local further education colleges. The apprenticeships will include but will not be limited to:                             <ul style="list-style-type: none"> <li>A Battery Manufacturing Technicians – a new standard designed for battery manufacturing technicians, which will be majority of the workforce;</li> <li>B Engineering/maintenance apprenticeships – for our maintenance and engineering department;</li> <li>C Supervisor/leadership level 3’s – for supervisors new to the role; and</li> <li>D The company has a clear development pathway for its staff, a commitment to promote from within and is investing heavily in employee training and development.</li> </ul> </li> <li>2 It is anticipated that AESC will use the CTP (Career transition partnership) for civilian employment for Service leavers – these would be local funded courses to ensure recognition of prior learning and upskilling.</li> <li>3 Currently AESC’s is engaging extensively with local colleges and universities aiming to deliver the required training for both current and future staff, with some staff already undertaking Level 7 courses as part of upskilling in the existing business. AESC would partner with a local university for the delivery of this training as and when it is required.</li> <li>4 There will be an internal training programme delivered by dedicated trainers within the factory. AESC is uniquely placed to deliver this knowledge and training due to the skills within the business; this will cover process and procedural skills that couldn’t be delivered by an external trainer.</li> <li>5 There will be a need for supportive short course training to ensure competency of our workers which would be delivered by local suppliers.</li> <li>6 Plans are being progressed for some STEM outreach activity – this may involve, school/college visits, competitions, career talks etc. and will focus</li> </ol>			

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
	<p>on highlighting what an interesting place AESC is to work. This is also to ensure a pipeline of potential recruits for the future. This will support the hiring plan for both the set-up, factory acceptance testing and ramp up towards Start of Production and will ensure succession and progression within the company for our employees. Investing in future talent is a priority for AESC and the STEM outreach programme will support this.</p> <p>It is also likely to support a permanent uplift in local wages, which could also enable individuals to access higher quality or 'luxury' items, including the purchase of healthier food options, access to better housing and an increased opportunity to access leisure activities.</p> <p>Given the nature of the proposed development, a large range of occupations are expected to be supported. Broadly, this could include corporate managers; business professionals; science and technology professionals; process, plant and machine operatives; and administrative and secretarial roles. Based upon a review of ONS data regarding the average proportionate breakdown of the resident population within the aforementioned roles, as well as the respective average annual salaries, it is estimated that the proposed development could uplift local wages by approximately £31.7m per annum across the 1,000 direct FTE jobs.</p> <p>Collectively, the impacts outlined above are considered to correspond to a high magnitude of change.</p> <p>The AOI is estimated to have a medium sensitivity with respect to economic conditions such as employment, training and wages. This is based upon the following considerations:</p> <ul style="list-style-type: none"> <li>• People seeking employment in the relevant sectors/occupations;</li> <li>• Unemployment rate benchmarked against other local authorities nationally; and</li> <li>• Income levels benchmarked against other local authorities nationally, including gross disposable household income.</li> </ul>			



Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal provide childcare facilities?	N/A	N/A	N/A	N/A
Does the proposal include managed and affordable workspace for local businesses?	N/A	N/A	N/A	N/A
Does the proposal include opportunities for work for local people via local procurement arrangements?	<p>As outlined above, the construction procurement process involves contractors demonstrating a commitment to providing a social value uplift locally. In addition to demonstrating a commitment towards graduate and apprenticeship opportunities, it also typically involves ensuring a proportion of the workforce is employed from the local area. In some contracts, this could include, specifically, a commitment to employing local residents facing adverse conditions such as high deprivation. Given the procurement process has not been concluded, it is not yet possible to confirm the specific commitments made by the contractor.</p> <p>Similarly, given the anticipated scale of employment supported by the development once operational, it is reasonable to expect that the local area will experience a large increase in permanent employment opportunities across a range of occupations. As such, it provides opportunities for individuals across range of qualification levels and skill sets.</p> <p>Collectively, this impact is considered to correspond to a medium magnitude of change.</p> <p>As indicated above, the AOI is estimated to have a medium sensitivity with respect to economic conditions such as employment, training and wages. However, it must be noted that individuals currently facing adverse conditions such as low income/high deprivation are likely to be highly sensitive to new employment opportunities. They therefore may disproportionately benefit from such impact.</p>	Medium	Medium	<b>Moderate Beneficial</b>

15.0

# Climate Change

Table 9

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal incorporate renewable energy?	The proposed development is expected to install solar PV panels on available rooftops and elsewhere within the site to secure energy from a sustainable source. The Energy Strategy calculates that the installed capacity of solar PV is expected to supply approximately 15% of the required energy.	Medium	Low	Minor Beneficial
Will the proposal have an impact on energy use and waste. How will energy use, carbon emissions and waste be minimised? How will effects of climate change be dealt with?	<p>The sustainability of the development is considered in the Climate Change Chapter of the Environmental Statement, the Energy Strategy and the Sustainability Statement.</p> <p>The Proposed Development will help AESC UK achieve their internal strategy of carbon neutrality by 2028 by streamlining transportation activities and logistics.</p> <p>The proposed development is also expected to facilitate the transition away from petrol cars towards electric vehicles which, in turn, will support the UK ambition to achieve net zero. This is considered crucial when considering the supplementary UK objective to end the sale of new petrol and diesel cars by 2035 in replacement of electric vehicles.</p>	Medium	High	<b>Moderate Beneficial</b>

16.0

# Minimising the Use of Resources

Table 10

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal make best use of existing land?	<p>Part of the proposed development will be delivered on land allocated for employment use in accordance within the IAMP AAP, whilst the majority of the site extends onto land designated as Green Belt. The application makes a Very Special Circumstances case for this quantum of development in this location. The scale of floorspace to be delivered within this phased of the AESC development is considered to correspond to a medium magnitude of change.</p> <p>The AOI is estimated to have a medium sensitivity with respect to regeneration factors such as maximising the use of land. This is based upon the following considerations:</p> <ul style="list-style-type: none"> <li>• Local land values; and</li> <li>• Rates of deprivation, with particular regard to crime.</li> </ul>	Medium	Neutral	Neutral
Does the proposal encourage recycling (including building materials)?	<p>During operation, a Site Waste Management Plan will be produced to ensure the efficient management of building materials, including the maximisation of material recycling, reuse and recovery.</p> <p>During construction, systems will be put in place to maximise the benefit of material choice and consequently minimise waste.</p> <p>Once operational, the development will implement smart waste management measures that allow for 100% high quality recycling of cardboard and plastics.</p> <p>Collectively, these measures are considered to translate to a medium magnitude of change.</p> <p>The sensitivity of the AOI in relation to the recycling, and minimising the use of materials is considered to be medium, by virtue of the cost and environmental implications from inefficiency.</p>	Medium	Medium	Moderate Beneficial

Criteria	Detail	Sensitivity of receptor	Magnitude of change	Impact
Does the proposal incorporate sustainable design and construction techniques?	<p>As outlined above, a number of measures will be put in place to minimise waste, but maximise the recycling of any resultant waste. During operation, the development will, wherever possible, seek to use battery powered machinery and tools, offsetting the need for power from carbon-generating sources. This, in combination with solar PV on the roof, should significantly offset the onsite carbon generating aspects of the development. This is considered to translate to a low magnitude of change.</p> <p>As previously indicated, the sensitivity of the AOI in relation to the recycling, and minimising the use of materials is considered to be medium</p>	Medium	Low	Minor Beneficial

## 17.0 Conclusions

17.1 This HIA has been prepared by Lichfields to assess the potential impacts of the proposed development upon the health of the local population by looking at the changes to the determinants of health and the pathways that could have impacts on the population.

17.2 Table 17.1 provides a summary of the detailed analysis outlined in the assessment of impacts above. It demonstrates that no *significant* adverse impacts on health are anticipated with respect to the proposed development, although some mitigation and enhancement measures have been recommended below to minimise specific adverse impacts.

17.3 In contrast, a number of beneficial impacts are anticipated. Most significantly, this relates to the impact of the proposed development on new employment opportunities. Indeed, material weight should be placed on the estimated impact of the proposed development on economic factors, as these impacts are considered to be highly influential on health outcomes.

Table 17.1 Summary of impacts

Determinants	Overall Judgement
Populations;	Minor Beneficial
Access to healthy food;	Negligible
Access to open space and nature;	Negligible
Accessibility and active travel;	Neutral
Social cohesion and lifetime neighbourhoods;	<b>Moderate Beneficial</b>
Air quality, noise and neighbourhood amenity;	Minor Adverse
Crime reduction and community safety;	Minor Beneficial
Access to work and training;	<b>Moderate Beneficial</b>
Climate Change;	<b>Moderate Beneficial</b>
Minimising the use of resources.	<b>Moderate Beneficial</b>

Source: Lichfields

## Mitigation and Enhancement Measures

17.4 It is common that many mitigation and enhancement measures that would have a beneficial impact on health are implemented at a later stage of the planning process through planning conditions. Notwithstanding, such measures could include:

- Ensuring that the employment generated by the development (during both the construction and operational phases) is occupied by a large proportion of local people. This could be secured by a Training and Employment Management Plan (TEMP). This concentrates the highly beneficial economic impacts supported by the development, as well as increases the potential for individuals to commute to work via active travel or public transport secured through a Travel Plan;

- The preparation of a Construction Environmental Management Plan and Construction Traffic Management Plan which will contain approved method statements and relevant environmental legislation. This is to ensure that construction work takes place in a well managed and satisfactory manner and does not cause a nuisance, waste issues or create pollution;
- Ensure that construction machinery is well-maintained (for both the safety of workers and local residents), as well as ensuring local residents are informed of development activity on the site so they can plan alternative arrangements if desired.
- The appointment of a Travel Plan coordinator on site will assist with monitoring the trip generation for the development and will seek to promote active and more sustainable modes of travel throughout the lifetime of the development.

the 1990s, the number of employees in the public sector has increased in all countries. The increase is most pronounced in the Netherlands, where the number of employees in the public sector has increased from 1.5 million in 1980 to 2.5 million in 1998. This increase is due to a combination of factors, including a general increase in the size of the public sector, a decrease in the number of employees in the private sector, and a decrease in the number of employees in the non-profit sector.

The increase in the number of employees in the public sector has led to a number of problems, including a decrease in the quality of services, a decrease in the efficiency of the public sector, and a decrease in the morale of public sector employees. These problems have led to a number of reforms, including a restructuring of the public sector, a reduction in the number of employees, and a change in the way the public sector is financed.

The restructuring of the public sector has led to a number of changes, including a reduction in the number of employees, a change in the way the public sector is financed, and a change in the way the public sector is organized. These changes have led to a number of problems, including a decrease in the quality of services, a decrease in the efficiency of the public sector, and a decrease in the morale of public sector employees.

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