

14 SOCIO-ECONOMICS AND HEALTH

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14.1 Introduction

- 14.1.1 Regulation 4(2) of the Town & Country Planning EIA (Wales) Regulations 2017 requires that the EIA 'must identify, describe and assess... the direct and indirect significant effects of the Proposed Development on [inter alia]... population and Human Health...'. The Regulation goes on to set out the other factors, and that the EIA must include 'the interaction between the factors'.
- 14.1.2 Socio-economics as an EIA topic evaluates the positive and negative impacts of a proposed development on the social and economic environment (Glasson, Therivel and Chadwick, 1994). Relevant socio-economic factors for consideration within EIA can include effects such as those related to employment, skills and training opportunities and access to infrastructure and services.
- 14.1.3 'Human Health' as an EIA factor concerns the likely significant health outcomes by evaluating the positive and negative health impacts of a proposed development against relevant local health determinants (IEMA, 2017). The World Health Organisation (WHO) defines health as "...a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".
- 14.1.4 'Population' is also a factor within the EIA Regulations and may be assessed separately or in combination with 'Human Health' factors. Where Population is assessed separately as a factor, there is greater emphasis on socio-economic impacts, such as employment, education or crime. Where Population is assessed in combination with Human Health factors, this concerns the impact on health outcomes of the population as a group sharing certain characteristics, including their distribution.

14.2 Statutory and planning context

- 14.2.1 There is no statutory guidance setting out how to assess potential socio-economic impacts of a development.
- 14.2.2 The following technical standards and guidance have, however, informed the assessment of effects:
 - Homes and Communities Agency (HCA) (2014). *Additionality Guide* (4th Edition)¹.
- 14.2.3 Reference is also made to relevant national and local legislation and policy relating to socio-economics and development, including:

¹ Note: whilst this guidance has been technically 'withdrawn', it has not been replaced with equivalent guidance, and therefore remains the most up-to-date UK-based guidance of its type. It appears that the principal reason for its withdrawal "as no longer current" was simply that the "the Homes and Communities Agency now operates as Homes England". Whilst the guidance was withdrawn in May 2022, it is noted that research ('The Additionality Of Housing Supply Interventions') published in March 2023 by the former UK Department for Levelling Up, Housing & Communities (since renamed The Ministry of Housing, Communities and Local Government) states that:

"The most comprehensive reference document for estimating additionality has been the HCA Additionality Guide (the most recent of which was published in 2014). This was set within the wider framework of economic appraisal as set out in the HM Treasury Green Book... the 2014 Guide remains the most comprehensive extant guide in terms of its guiding principles for dealing with key additionality concepts such as deadweight and displacement"

The above research is available on the UK Government's website at:

<https://www.gov.uk/government/publications/the-additionality-of-housing-supply-interventions>

- HM Government (2021). Build Back Better: our plan for growth.
- HM Treasury (2020). Plan for Jobs.
- HM Government (2022). Levelling Up White Paper and 2023 Levelling Up and Regeneration Act.
- Welsh Government (2023) Economic Mission: Priorities for a Stronger Economy.
- Neath Port Talbot Council (NPTC), Swansea Council (SC) and Carmarthenshire County Council (CCC) (2021) Regional Economic Framework For South West Wales.
- NPTC (2022) Economic Recovery Plan.
- NPTC (2024a) UK Shared Prosperity Fund (UKSPF): 'Employability' Anchor Project.

14.2.4 There is no statutory guidance setting out how to assess potential health impacts of a development. The assessment will therefore be based on nationally recognised best practice and guidance from a number of sources. This includes the Wales Health Impact Assessment Support Unit (WHIASU) practical guide to Health Impact Assessment (HIA) and the NHS Healthy Urban Development Unit (HUDU) HIA guidance. The Institute for Environmental Management and Assessment (IEMA) has recently produced a best practice guide to Effective Scoping of Human Health in Environmental Impact Assessment (IEMA, 2022a), which has been used herein to define the scope of Human Health as an EIA factor.

14.2.5 In addition, reference is made to relevant national and local policy relating to Human Health and development, including:

- Future Wales: The National Plan 2040 published by Welsh Government in February 2021 (FW).
- Planning Policy Wales Edition 11 published by Welsh Government in February 2021 (PPW).
- NPTC Local Development Plan 2011–2026 adopted in January 2016 (LDP).
- NPTC Local Development Plan 2011–2026 Health Topic Paper August 2013.
- Neath Port Talbot Public Services Board Wellbeing Plan 2023–28.

14.2.6 In particular, the NPTC Local Development Plan 2011–2026 Policy SP 2 Health sets out the measures that will be taken in relation to the high levels of poor long-term health and sickness in Neath Port Talbot as follows:

- 1. The development of sustainable, safe and confident communities will be promoted through the colocation of jobs and facilities and the development of community facilities and services in accordance with the settlement framework;*
- 2. People's exposure to those elements that can have an adverse impact on their health (such as their social, economic or physical environment) will be reduced where possible through consideration of the environmental and safety impacts of new developments;*
- 3. Healthier, more active and safer lifestyles will be encouraged through the retention of a range of accessible leisure, recreational, health, retail, social, cultural and community facilities throughout the County Borough;*
- 4. Accessibility within and between communities will be improved to encourage active travel;*
- 5. The provision of new employment opportunities will be promoted to reduce unemployment and economic inactivity rates.*

14.3 Consultation undertaken

- 14.3.1 Consultation meetings have taken place with NPTC to inform the scope and methodology for the assessment of Socio-economics and of Human Health effects within this ES chapter.
- 14.3.2 Scoping notes were prepared to summarise the respective proposed methodologies regarding Socio-economics and to Human Health; these are provided at Appendix 4.1.
- 14.3.3 Following the EIA Scoping stage, further consultation was conducted with NPTC officers with respect to local, sub-regional and national socio-economic policy and strategy that should inform the assessment.
- 14.3.4 The pre-application consultation period offers a further opportunity for engagement with a wider range of stakeholders.

14.4 Approach to the assessment

Socio-economics

Effects assessed

- 14.4.1 **Table 14.1** outlines the socio-economic effects and associated receptors that were considered likely to be significant or subject to change that have been assessed and are reported within this chapter.

Table 14.1 Receptor value and sensitivity

Effect	Receptor	Applicable phase
Change in direct, indirect and induced employment during the construction phase	Labour force	Construction
Change in education, skills and training provision during the construction phase	Labour force	Construction
Change in direct, indirect and induced employment during the operational phase	Labour force	Operation
Change in employee expenditure during the operational phase	Businesses and associated labour force	Operation

- 14.4.2 As stated above, there is no overarching guidance which sets out the preferred methodology for the preparation of assessments of the likely effects of development proposals in terms of socio-economic impact. However, there are several methodological guides which cover key elements of the assessment, all of which have been listed above. These have been drawn upon as appropriate within the assessment, with the HCA's Additionality Guide (HCA, 2014) alongside statistical evidence published by organisations such as the ONS being of particular relevance to the assessment of economic impacts.
- 14.4.3 Drawing on the above guidance, the following methodology has been applied²:

² The 'construction and 'operational' phases are defined in more detail below.

- **Change in direct, indirect and induced employment during the construction phase:** The average number of gross full-time equivalent (FTE) jobs to be supported by demolition/construction during the construction phase has been estimated by the Applicant. Allowances have then made for the 'additional factors' of leakage³ and displacement⁴, respectively taking into account commuting patterns (ONS, 2023a) and standards set out in published guidance (HCA, 2014), in order to calculate net FTE jobs. In conjunction with Applicant-provided information regarding estimated impacts on supply chain expenditure, multipliers⁵ have also been applied to estimate the change in indirect/induced employment, drawing on published guidance, as well as ONS (ONS, 2023b) and other (Scottish Government, 2023) published statistical data. The extent to which employment supported by the Proposed Development during the construction phase impacts on established baseline levels of employment at the Site (as provided by the Applicant) and the overall change in employment in the context of wider economic trends has informed assessment of the level of effect.
- **Change in construction education, skills & training provision during the construction phase:** Unemployment rates published by the ONS (ONS via Nomis, 2024a) provide an indication of the likelihood that employment generated during demolition/construction could be taken up by people who would otherwise have been unemployed. This is supplemented by evidence published by the Welsh Government (Lifelong Learning Record Wales, 2023) regarding representation of apprenticeships in the construction sector. The extent to which the Proposed Development impacts on education, skills & training provision in the context of wider economic trends has informed the assessment of the level of effect.
- **Change in direct, indirect and induced employment during the operational phase:** Evidence provided by the Applicant sets out the impact of the Proposed Development with regard to operational phase employment following its completion. As with the construction phase, allowances are made for leakage and displacement, respectively taking into account evidence regarding the residences of the established baseline workforce and published guidance (HCA, 2014) to estimate net direct impacts. Similarly, in conjunction with Applicant-provided information regarding estimated impacts on supply chain expenditure, multipliers have again been applied to estimate impacts resulting from change in indirect and induced employment, drawing on guidance (HCA, 2014), as well as ONS (ONS, 2023b) and other (Scottish Government, 2023) published statistical data. The extent to which employment supported by the Proposed Development during the operational phase impacts on established baseline levels of employment at the Site (as provided by the Applicant) and the overall change in employment in the context of wider economic trends has informed assessment of the level of effect.
- **Change in employee expenditure during the operational phase:** Data regarding average retail and leisure consumer expenditure per adult in Neath Port Talbot⁶, sourced from Experian (Experian, 2023), was weighted according to ONS data (ONS, 2018a; ONS, 2018b) regarding the socio-economic

³ Leakage is defined by the HCA Additionality Guide as "*The proportion of outputs that benefit those outside of the intervention's target area or group*". For example, the number of jobs which would be held by those living outside of the respective impact areas.

⁴ Displacement is defined by the HCA Additionality Guide as "*The proportion of intervention outputs/outcomes accounted for by reduced outputs/outcomes elsewhere in the target area*".

⁵ Multipliers are defined by the HCA Additionality Guide as "*Further economic activity (jobs, expenditure or income) associated with additional local income and local supplier purchases*".

⁶ Neath Port Talbot resident expenditure data informs the assessment, as the largest single home local authority of existing workers, and is assumed for the purposes of the assessment to be replicated across the SRIA.

classification of existing direct employees to estimate baseline levels of expenditure. The proportionate difference between the expenditure of employed adults and adults in other socio-economic classification groups (e.g. unemployed) was then applied to estimate the change in expenditure of people whose jobs will be no longer supported following the Proposed Development⁷. The extent to which the change in employee expenditure following delivery of the Proposed Development impacts on established baseline levels generated under existing operations and overall expenditure more widely in the LIA and SRIA (defined below) has informed the assessment of the level of effect.

Socio-economic impact areas

14.4.4 In the absence of guidance or policy available to inform the definition of appropriate study areas, they can be reasonably defined based on an understanding of relevant socio-economic geographies and the extent to which socio-economic effects are likely to be contained within these geographies. The defined Socio-economic Impact Areas are as follows:

- **Local Impact Area (LIA):** based on the local authority administrative area of NPTC. Evidence from the Applicant shows that that c. 52% of established baseline employees at the Site reside within the local authority area, indicating a reasonable rate of local containment;
- **Sub-regional Impact Area (SRIA):** based on the combined local authority administrative areas of NPTC, SC and Bridgend County Borough Council (BCBC). Evidence from the Applicant shows that 80% of established baseline employees at the Site reside within the sub-regional area, indicating a relatively high rate of containment in this geography;
- **Wider Impact Area (WIA):** based on the country of Wales. Evidence from the Applicant shows that that 99% of established baseline employees at the Site reside within Wales, thereby enabling direct employment impacts as a result of the Proposed Development to be almost fully captured by the assessment. This will also capture employment supported by the Site accessed by workers living in Wales outside of the SRIA via links such as the M4 motorway and the mainline railway; and
- **UK Impact Area (UKIA):** based on the UK as a whole. This impact area has been defined so as to enable all UK-based direct, indirect and induced impacts to be captured by the assessment, given that 100% of established baseline employees at the Site reside within the UK.

Reporting of the environmental effect and significance criteria

14.4.5 The following sections define the approach adopted within the assessment of socio-economic effects for the various phases of development, including the determination of sensitivity, magnitude of change, the level of effect and significance.

Phases of development

14.4.6 The established baseline is defined as the historic baseline level of socio-economic activities undertaken and impacts generated by the Site's operation prior to commencement of the Proposed Development. It is the established baseline against which likely significant environmental effects as generated during each phase are

⁷ Assessment assumes, as a worst-case scenario, that workers will either retire or be unemployed following the delivery of the Proposed Development.

compared. As set out in the socio-economic baseline section below, baseline employment at the Site equates to c. 3,690 FTE jobs.

14.4.7 The assessment of likely significant environmental effects as a result of the Proposed Development has taken into account the following phases:

- **Construction phase:** Defined as the phase during which the Proposed Development's demolition and construction works will be undertaken. Relevant effects (i.e. employment and education, skills & training provision) generated during this phase are assessed through comparison with the established baseline. This therefore considers impacts that will be supported by the construction of the Proposed Development against those generated by historic operations at the Site prior to its redevelopment, which is considered to be the relevant comparator to inform a reasonable worst-case scenario. Further details regarding the established and interim baseline positions are provided at Tables 14.9 and 14.10 and these tables' supporting text, and explanations of how these positions have informed the assessment are provided during the consideration of each construction phase effect. The construction phase is anticipated to cover the period mid-2025 to mid-2027. New activity and impacts generated during the construction phase will therefore be considered in the context of activity at the Site upon commencement of the construction phase, and will be compared against the established baseline.
- **Operational phase:** Defined as the phase in which the Proposed Development is complete and is fully operational. Relevant effects (employment and employee expenditure) generated during this phase are assessed through comparison with the established baseline. This therefore considers impacts that will be supported by the completed Proposed Development against those generated by historic operations at the Site prior to its redevelopment, which is considered to be the relevant comparator to inform a reasonable worst-case scenario. Further details regarding the established and interim baseline positions are provided at Tables 14.9 and 14.10 and these tables' supporting text, and explanations of how these positions have informed the assessment are provided during the consideration of each operational phase effect. The operational phase is anticipated to cover the period from mid-2027 onwards. New activity and impacts generated during the operational phase will therefore be considered in the context of activity at the Site following completion of the construction phase and following commencement of full operations, and will be compared against the established baseline.

Determining receptor sensitivity

- 14.4.8 The sensitivity of affected receptors has been considered on a scale of high, medium, low or negligible.
- 14.4.9 The sensitivity of receptors is determined by comparison with relevant local, sub-regional and national trends. Consideration is also given to the priority and value attributed to specific receptors in strategy and policy terms. The assessment is based on professional judgement.
- 14.4.10 In the absence of industry-wide guidance on assessing the sensitivity of receptors with respect to socio-economic effects, **Table 14.2** provides an overview of the sensitivity criteria applied in the assessment. Given the range of factors influencing the sensitivity of effects assessed within this chapter, it is not possible to define specific criteria that would be applicable across all receptors. The sensitivity of each specific receptor is therefore discussed and justified in turn within the main assessment section of this chapter, based on these general principles.

Table 14.2 Socio-economic receptor value and sensitivity criteria

Value	Description
High	Receptor of national importance, with little ability to absorb, adapt to or recover from change.
Medium	Receptor of regional or local importance, with medium ability to absorb, adapt to or recover from change.
Low	Receptor of local importance, with some ability to absorb, adapt to or recover from change.
Negligible	Receptor of limited or no importance.

Determining impact magnitude

- 14.4.11 Impact magnitude has been considered as the change experienced at the sensitive receptor, and has been considered on a scale of large, medium, small or negligible.
- 14.4.12 In the absence of industry-wide guidance on assessing the magnitude of change with respect to socio-economic effects, **Table 14.3** provides an overview of the magnitude criteria applied in the assessment.
- 14.4.13 To determine magnitude, the absolute impact attributable to the Proposed Development is benchmarked (where relevant) against the corresponding socio-economic baseline.

Table 14.3 Socio-economic impact magnitude criteria

Magnitude	Summary
Large	The change will result in substantial changes to baseline conditions, or will be highly likely to affect large numbers of people and / or businesses over the long-term (10+ years), and, as such, should be acknowledged as an important consideration which (depending on the sensitivity of the receptor) is likely to be material in the decision-making process.
Medium	The change can be demonstrated to change baseline conditions and is likely to affect a reasonable number of people and / or businesses over a medium-term (1 – 10 years) duration. The change may be important, but is not likely to be a key decision-making factor unless the cumulative effects of such factors lead to an increase in the overall effect on a particular socio-economic resource or receptor.
Small	The change will result in a perceptible difference from baseline conditions and is likely to affect a small number of people and / or businesses over a short-term (less than 1 year) duration. The change may be raised as a local factor, but is unlikely to be critical in decision-making process.
Negligible	The change does not result in variation beyond baseline conditions, and is unlikely to measurably affect people and / or businesses.

Determining the level of effect

- 14.4.14 The level of effect has been informed by the sensitivity of the affected receptor and the magnitude of change due to the Proposed Development. The level of effect has been determined using professional judgement; **Table 14.4** has been a tool which has assisted with this process.

Table 14.4 Matrix to support determining the level of effect

Sensitivity	Magnitude			
	Large	Medium	Small	Negligible
High	Major	Major	Moderate	Negligible/minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Negligible/minor	Negligible	Negligible	Negligible

- 14.4.15 The terms set out at **Table 14.5** below have been used to define the level of the effects identified. These effects can be 'beneficial' or 'adverse'.

Table 14.5 Socioeconomics significance criteria

Level of effect	Description
Major	Large change in environmental or socio-economic conditions. These effects, both adverse and beneficial, are likely to be important considerations at a national to regional level because they contribute to achieving national / regional objectives or are likely to result in exceedance of statutory objectives and/or breaches of legislation.
Moderate	Intermediate change in environmental or socio-economic conditions. These effects are likely to be important considerations at a regional and local level.
Minor	Small change in environmental or socio-economic conditions. These effects may be raised as local issues but are unlikely to be of importance in the decision-making process.
Negligible	No discernible change in environmental or socio-economic conditions (i.e. variation within normal bounds or below measurable levels). An effect that is likely to have a negligible or neutral influence, irrespective of other effects.

- 14.4.16 The duration of effects has been assessed as either 'short-term', 'medium-term' or 'long-term'. For the purposes of the assessment of socio-economic effects, short-term is considered to be up to 1 year, medium-term is considered to be between 1 and 10 years and long-term is considered to be greater than 10 years.
- 14.4.17 It should also be noted that identified embedded mitigation has informed conclusions and that this has been considered on the basis of professional judgement.

Determining significance of effect

- 14.4.18 For each effect, a statement has been made as to whether the level of effect is 'Significant' or 'Not Significant'. This determination has been based on professional judgement and / or relevant guidance / legislation where applicable.
- 14.4.19 Significance has only been concluded for residual effects (i.e. following the identification of secondary mitigation).
- 14.4.20 Shaded cells at **Table 14.4** indicate effects that are considered to be significant.

Health

Existing health profile

- 14.4.21 The existing population health of the local area surrounding the Proposed Development is profiled using publicly available local health data. This provides a context for the health of the local population against which the potential for significant health impacts can be assessed. The baseline data takes account of relevant local (Wales Census data Output Areas), regional and national statistics.

Wider determinants of health

- 14.4.22 Determinants of health are the range of interacting factors that shape the health and well-being in a population. These include individual behaviours (such as diet or level of physical activity) and biological factors (such as age or genetic inheritance), but also the wider social, economic and physical environmental conditions in which people live their lives.
- 14.4.23 The relationship between these wider social, economic and physical environmental determinants of health was conceptually modelled in research undertaken by Dahlgren and Whitehead (1991) (**Image 14. 1a** below). The model suggested that the health of individuals within a population (with fixed age, sex and hereditary determinants), at the centre of the model, is influenced by a number of modifiable determinants. The modifiable determinants are illustrated in the model as a series of 'ecosystem spheres' on the basis of the scale of their influence. The first sphere concerns personal behaviour and ways of living that could promote or damage health. The second sphere relates to social and community influences, which could provide mutual support for members of the community in unfavourable conditions. The third sphere relates structural factors such as housing, working conditions, access to services and provision of essential facilities.
- 14.4.24 Building on the Dahlgren and Whitehead model, Barton and Grant (2006) later developed a health map for urban planners, which emphasised the geo-spatial hierarchy of determinants of health (**Image 14.1b** below). Recognising that interdisciplinary collaboration is required to address health inequalities at a range of scales, their model elaborated on the relationship between social, economic and environmental determinants. The model relates to a settlement, that is set within a wider bio-region and ultimately the global ecosystem upon which human existence depends. The resulting health map provides a framework for planning Human Health within which different specialisations (planners, architects, ecologists, air quality specialists, social scientists, etc) can relate. The model therefore provides a unified approach to planning from the

neighbourhood upwards, which aims to put health and wellbeing of people at the centre of decision making.

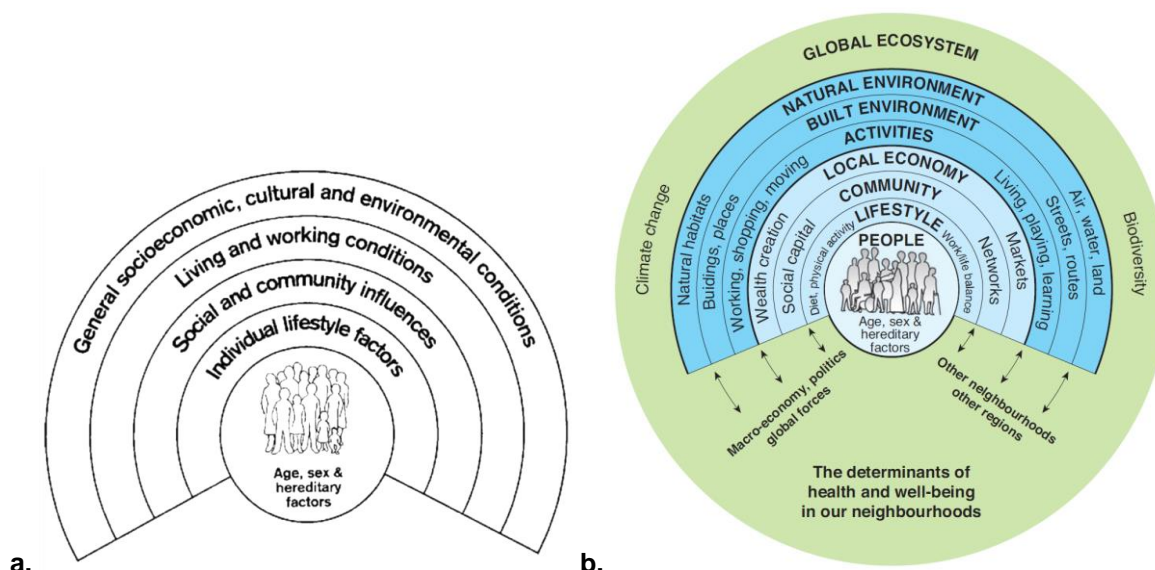


Image 14.1a. The Dahlgren and Whitehead determinants of health model; **b.** The Barton and Grant health map for urban planners.

- 14.4.25 IEMA (2022a) provides guidance on applying the wider determinants of health to EIA scoping. The guidance identifies five main categories of wider determinants: health related behaviours; social environment; economic environment; bio-physical environment; and institutional and built environment. It is useful to judge the wider determinant of health against the emerging development proposals at the scoping stage of an EIA, as this helps to refine the need for and scope of a detailed Human Health impact assessment.
- 14.4.26 Potential for impacts on Human Health are assessed by judging likely health outcomes with respect to a relevant determinant of health together with the site-specific and local conditions where relevant to health and wellbeing. This judgement applies the source → pathway → receptor model. Only where there is potential for a pathway between an impact (a change in baseline conditions/ determinants of health) and a likely health outcome (on the local population), will an impact pathway be considered possible.
- 14.4.27 Individual decisions on determinants of health do not always have a direct effect on health and wellbeing (Barton and Grant, 2006). There are various pathways to impacts on health outcomes which may be controlled or influenced by other factors or decisions made, alas the impact pathway may be indirect or complex. Nevertheless, for the purpose of EIA a judgment of the potential of individual impact pathways is useful as it helps to break down some of the complexity and allows for a proportionate assessment of the likelihood of significant effects as required by the EIA Regulations.

Health impact areas

- 14.4.28 From the existing health profile and an understanding of potential health impact pathways, the health impact area is identified with regards to Lower Layer Super Output

Areas (LSOA). LSOAs are the lowest geographical level at which statistical estimates are provided in England and Wales.

- 14.4.29 The health impact area for the Proposed Development has been based principally on the Margam 1 and Margam 2 Lower Super Output Areas (LSOA's) which overlap with the Proposed Development site, but extends outwards to include all adjacent LSOA's as illustrated in **Figure 14.1**.
- 14.4.30 The Welsh Index of Multiple Deprivation (WIMD) data is reported to LSOA level. This publicly available data is the Welsh Government's official measure of relative deprivation for Wales. It identifies areas with the highest concentrations of several different types of deprivation. WIMD ranks all small areas in Wales from 1 (most deprived) to 1,909 (least deprived).

Describing health impacts

- 14.4.31 IEMA (2022b) provides guidance on suggested criteria for determining the sensitivity to changes in local health outcomes. These criteria are set out in **Table 14.7**.

Table 14.6 Human health sensitivity criteria (from IEMA, 2022b)

Category/level	Indicative criteria
High	High levels of deprivation (including pockets of deprivation); reliance on resources shared (between the population and the project); existing wide inequalities between the most and least healthy; a community whose outlook is predominantly anxiety or concern; people who are prevented from undertaking daily activities; dependants; people with very poor health status; and/or people with a very low capacity to adapt.
Medium	Moderate levels of deprivation; few alternatives to shared resources; existing widening inequalities between the most and least healthy; a community whose outlook is predominantly uncertainty with some concern; people who are highly limited from undertaking daily activities; people providing or requiring a lot of care; people with poor health status; and/or people with a limited capacity to adapt.
Low	Low levels of deprivation; many alternatives to shared resources; existing narrowing inequalities between the most and least healthy; a community whose outlook is predominantly ambivalence with some concern; people who are slightly limited from undertaking daily activities; people providing or requiring some care; people with fair health status; and/or people with a high capacity to adapt.
Very low	Very low levels of deprivation; no shared resources; existing narrow inequalities between the most and least healthy;

Category/level	Indicative criteria
	a community whose outlook is predominantly support with some concern; people who are not limited from undertaking daily activities; people who are independent (not a carer or dependant); people with good health status; and/or people with a very high capacity to adapt.

14.4.32 As noted above IEMA (2022a) also provides useful guidance on applying the wider determinants of health to EIA scoping, and is used to judge whether individual wider determinants of health need to be scoped into Human Health assessment as part of the EIA.

14.4.33 In determining the potential for impact pathways, this judgement has been undertaken with regard to the following criteria:

- The nature of the impact – how will the Proposed Development affect health and will the impact be positive or negative?
- The likelihood of the impact – is the likelihood of the impact of the proposal definite, probable or speculative?
- The scale and significance of the impact – what proportion of the population is likely to be affected? How severe or beneficial will the impact be?
- The timing of the impact – will the impact be in weeks, months, years? In some instances, the short-term risks to health may be worth the long-term benefits.
- The distribution the impacts – will the Proposed Development affect different groups of people in different ways? A proposal that is likely to benefit one section of the population may not benefit others. In some cases, the assessment will identify ways in which members of the least healthy or most disadvantaged populations could be helped. This can be an important contribution to reducing the health inequalities that exist between some communities.
- The magnitude of the impact – will the Proposed Development lead to a perceptible difference compared with that identified in the baseline and if so will this be a small, medium or large change?

14.4.34 Criteria provided in IEMA (2022b) for determining the magnitude of impacts arising from an impact pathway are set out in **Table 14.7**.

Table 14.7 Human health magnitude of impact criteria (from IEMA, 2022b)

Category/level	Indicative criteria
High	High exposure or scale; Long-term duration; continuous frequency; Severity predominantly related to mortality or changes in morbidity (physical or mental health) for very severe illness/injury outcomes; Majority of population affected; Permanent change; Substantial service quality implications
Medium	Low exposure or medium scale; Medium-term duration; frequent events; Severity predominantly related to moderate changes in morbidity or

Category/level	Indicative criteria
	major change in quality-of-life; Large minority of population affected; Gradual reversal; small service quality implications
Low	Very low exposure or small scale; Short-term duration; occasional events; Severity predominantly related to minor change in morbidity or moderate change in quality-of-life; Small minority of population affected; Rapid reversal; Slight service quality implications
Negligible	Negligible exposure or scale; Very short-term duration; One-off frequency; Severity predominantly relates to a minor change in quality-of-life; very few people affected; Immediate reversal once activity complete; no service quality implication.

Determining significance of effect

14.4.35 **Table 14.8** sets out the criteria provided in the IEMA (2022b) guidance for determining the level of significance of effect of an impact pathway on health outcomes. The guidance advises a professional judgement on severity, health outcome permanence and service quality implications, informed by the scientific literature. Reference is also made to **Table 14.6**, **Table 14.7** and **Table 14.4** to assist in this judgement.

Table 14.8 Human health significance criteria (adapted from IEMA, 2022b)

Category/level	Indicative criteria
Major (significant)	Change, due to the project, could result in a regulatory threshold or statutory standard being crossed (if applicable); AND/OR There is likely to be a substantial change in the health baseline of the population, including as evidenced by the effect size and scientific literature showing there is a causal relationship between changes that would result from the project and changes to health outcomes.
Moderate (significant)	Change, due to the project, could result in a regulatory threshold or statutory standard being approached (if applicable); AND/OR There is likely to be a small change in the health baseline of the population, including as evidenced by the effect size and scientific literature showing there is a clear relationship between changes that would result from the project and changes to health outcomes.
Minor (not significant)	Change, due to the project, would be well within a regulatory threshold or statutory standard (if applicable); but could result in a guideline being crossed (if applicable); AND/OR There is likely to be a slight change in the health baseline of the population, including as evidenced by the effect size and/or scientific literature showing there is only a suggestive relationship between changes that would result from the project and changes to health

Category/level	Indicative criteria
	outcomes.
Negligible (not significant)	Change, due to the project, would not affect a regulatory threshold, statutory standard or guideline (if applicable); AND/OR There is likely to be a very limited change in the health baseline of the population, including as evidenced by the effect size and/or scientific literature showing there is an unsupported relationship between changes that would result from the project and changes to health outcomes.

Applying mitigation

- 14.4.36 In considering the effectiveness of mitigation measures, reference is made back to the Barton and Grant health map for urban planners provided in **Image 14.1b**. Where mitigation measures proposed would directly address health impacts or have the potential to bridge health inequalities at a range of scales (either directly or indirectly) then this will be judged to ameliorate the effect.

Limitations of the assessment

- 14.4.37 To ensure transparency within the EIA process, the following limitations and assumptions have been identified.
- In the absence of specific policy or guidance relating to the consideration of socio-economic and human health effects (e.g. regarding the definition of the study area, sensitivity of receptors, magnitude of change, level of effect and significance), the assessment has been informed by professional judgement.
 - The assessment relies on secondary survey data such as the 2021 Census (ONS, 2023a) and Experian (Experian, 2023). Each data source has methodological limitations related to data collection and surveys only represent the socio-economic context at a specific point in time.
 - Economic impact modelling informing the assessment relies on assumptions based on the application of best-practice guidance, information provided by the Applicant and secondary data. Assumptions and information sources are explained and justified as required at the relevant point of the assessment.
 - Where third party commitments to inherent/embedded/primary mitigation (for example, from UK Government, other public sector bodies and the Applicant's education, skills and training partners associated with the Transition Fund) have been made, the assessment assumes that they will be implemented.

14.5 Established and interim environmental baseline

On-site activity

- 14.5.1 As the established baseline, the Site currently supports c. 3,690 FTE jobs. The total headcount of employees (i.e. in both full and part-time roles) is c. 3,730.

Established baseline: estimated employment effects

- 14.5.2 In order to compare the impacts of the various phases of the Proposed Development with the established baseline – particularly in terms of employment-related effects – it is

necessary to first estimate the established effects of Site operations. This analysis is therefore presented below.

- 14.5.3 Evidence provided by the Applicant shows that the Site supports 3,690 direct FTE jobs. As set out above in relation to 'socio-economic impact areas', the Applicant's evidence also indicates that all jobs are directly supported within the UK, with the vast majority (99%) being in Wales, and 80% and 52% respectively being filled by residents of the SRIA and LIA.
- 14.5.4 Following application of the corresponding leakage rates⁸ it is estimated that, of the total on-site FTE jobs, 3,650 are supported in Wales, with 2,950 being filled by SRIA residents and 1,930 by residents of the LIA.
- 14.5.5 Following application of appropriate sector-based multipliers⁹ based on guidance (HCA, 2014), as well as ONS (ONS, 2023b) and other (Scottish Government, 2023) published statistical data, it is estimated that activities at the Site support c. 6,100 indirect and induced jobs across the UK, inclusive of 3,060 jobs in the WIA, 2,070 jobs in the SRIA and 960 jobs in the LIA.
- 14.5.6 Therefore, summing the above direct, indirect and induced impacts, it is estimated that the Site's established baseline supports a total of c. 9,790 direct, indirect and induced FTE jobs across the UK, inclusive of 6,710 jobs in the WIA, 5,020 jobs in the SRIA and 2,890 jobs in the LIA.
- 14.5.7 This is set out in **Table 14.9** below.

Table 14.9 Established baseline employment

	LIA	SRIA	WIA	UKIA
On-site FTE Employment	3,690			
Direct FTE Employment	1,930	2,950	3,650	3,690
Indirect / Induced FTE Employment	960	2,070	3,060	6,100
Total FTE Employment	2,890	5,020	6,710	9,790

- 14.5.8 The above therefore represents what is considered for the purposes of this assessment to be the established baseline position with respect to employment.

Interim baseline at commencement of the construction phase: estimated employment effects

- 14.5.9 Evidence provided by the Applicant indicates that by mid-2025 – the time of the commencement of the construction phase – the number of direct FTE jobs supported on-site will have reduced by c. 1,930, to stand at c. 1,760.

⁸ Note that the additionality factor of 'displacement' is considered to be zero for existing employment.

⁹ Multipliers applied: 1.50 (LIA); 1.70 (SRIA); 1.84 (Wales); 2.65 (UK). LIA and SRIA multipliers are based on HCA guidance. WIA multipliers reflect Type 2 (indirect and induced) national multipliers for iron & steel production produced by the Scottish Government – whilst the Welsh Government has not published equivalent data, use of Scottish Government data is considered appropriate for the purposes of the assessment as a comparable national economy. UK multipliers reflect Type 1 (indirect-only) UK multipliers for iron & steel production produced the ONS (2.27), with an additional assumption applied (proportionally in line with the difference between Scottish Type 1 and Type 2 multipliers) to generate UK Type 2 (indirect and induced) multipliers.

- 14.5.10 The Applicant is implementing inherent/embedded/primary mitigation measures to minimise the impact on indirect/induced employment through retention of current supply chain capacity. Analysis conducted by the Applicant indicates that, whilst the exact nature of their requirements from suppliers is likely to have evolved by the time of the commencement of the construction phase, with some reductions in supplier expenditure at all spatial scales as a result of the ceasing of operations of the Site's heavy end, capacity in the supply chain will be redeployed and retained to a notable extent. As such, the Applicant estimates that during one year of the construction phase, c. 50% of established baseline supply chain expenditure at all spatial scales will be retained, with c. 60% being retained during the remainder of construction (c. 1.5 years) and subsequent operation of the Proposed Development under a worst-case scenario; it has therefore been assumed for the purposes of the assessment that an equivalent proportion of indirect/induced employment will also be retained. This position (retention of 50% of expenditure during one year of construction and 60% during the remainder of construction) will be maintained by retention of suppliers in construction-related activities on an ongoing basis throughout the construction phase. The Applicant similarly estimates that an equivalent proportion (i.e. retention of 60%) of the existing supply chain could be maintained going forwards following the construction phase to meet the ongoing needs of the Proposed Development once complete and operational under a worst-case scenario. It should be noted that all supply chain contracts will be awarded following an open tender process.
- 14.5.11 Following an equivalent methodology to that set out above in relation to the established baseline with regard to indirect/induced employment (whilst also accounting for a 40% reduction in supply chain impact), it is estimated that a total of 3,660 indirect/induced FTE jobs will be supported UK-wide, including 1,840 in the WIA, 1,240 in the SRIA and 580 in the LIA.
- 14.5.12 Therefore, summing the above totals, it is estimated that at the time of the commencement of the construction phase, the Site will support a total of c. 5,170 direct, indirect and induced FTE jobs across the UK, inclusive of 3,460 jobs in the WIA, 2,570 jobs in the SRIA and 1,460 jobs in the LIA.
- 14.5.13 This equates to a net reduction of 4,620 direct, indirect and induced FTE jobs in the UK by the time of the commencement of the construction phase, inclusive of a reduction of 3,250 jobs in the WIA, 2,450 jobs in the SRIA and 1,430 jobs in the LIA.
- 14.5.14 This is set out at **Table 14.10** below.

Table 14.10 Interim baseline at commencement of the construction phase

	LIA	SRIA	WIA	UKIA
On-site FTE Employment	1,760			
Direct FTE Employment	920	1,410	1,740	1,760
Indirect / Induced FTE Employment	540	1,160	1,720	3,420
Total FTE Employment	1,460	2,570	3,460	5,170
Total FTE Employment: Net Change from established baseline	-1,430	-2,450	-3,250	-4,620

14.5.15 The above therefore represents what is considered for the purposes of this assessment to be the interim baseline position at commencement of the construction phase with respect to employment.

Economic activity, employment and unemployment

14.5.16 Access to employment is a notable determinant of both economic and physical wellbeing, at both an individual and societal level. This is exemplified by the fact that health expenditure on an unemployed person is reported to be double the average expenditure per person, given that an individual's overall health and wellbeing – in terms of both physical and mental health – is strongly associated with being in meaningful employment (Department for Work and Pensions, 2010).

14.5.17 Research (Public Health England, 2015) published by the UK Government's Office for Health Improvement & Disparities (OHID, under the former body Public Health England) highlights the following impacts and outcomes resulting from employment:

- It is generally the key means of obtaining adequate economic resources, which are essential for material wellbeing and full participation in society; and
- It also meets important psychosocial needs in societies where employment is the norm and is central to individual identity, social roles and social status, with employment and socio-economic status being among the main drivers of health outcomes.

14.5.18 Whilst, conversely, unemployment:

- Causes the loss of regular income, the material and psychosocial impacts of which contributes to the link between unemployment and poor health;
- Causes additional psychological stressors related to status and self-esteem, identity and the loss of a core role in life, which impact on health;
- Is also associated with unhealthy behaviours, including increased smoking and alcohol consumption and decreased physical exercise; and
- Can have effects beyond the individual directly affected, with evidence suggesting that financial difficulties or associated stress can increase the risk of poor mental health among the families of those who are unemployed.

14.5.19 The ONS regularly monitors national wellbeing, and its research (ONS, 2021) highlights a correlation between unemployment and peoples' experiences of feelings of loneliness. Higher unemployment rates in an area are linked to higher loneliness rates and poses threat to people's economic means as well as their health and wellbeing.

- 14.5.20 As such, NHS HUDU guidance (NHS HUDU, 2019) identifies income and employment and access to work and training as key determinants of human health. Similarly, IEMA guidance (IEMA, 2022b) highlights 'employment and income' as a relevant human health-related effect for consideration when scoping EIA.
- 14.5.21 Analysis of economic activity, employment and unemployment rates provides an indication of the latent labour force either currently employed or available to start work immediately. Over the year to December 2023, the ONS's Annual Population Survey (APS) (ONS via Nomis, 2024b) indicates that the economic activity rate amongst the resident working-age (aged 16-64) population of Neath Port Talbot (77%) was higher than the rates across the SRIA (74%), and in line with the Welsh rate (also 77%). Economic activity rates in these geographies were all lower than that recorded in the UK as a whole (79%).
- 14.5.22 Similarly, the working-age employment rate in Neath Port Talbot was also higher (at 74%) than across the SRIA (72%) and in line with the Welsh rate (also 74%). Again, employment rates in these geographies were lower than across the UK as a whole (76%).
- 14.5.23 ONS Claimant Count data (ONS via Nomis, 2024a) provides an up-to-date record of the number of people currently claiming benefits principally for the reason of being unemployed. This reveals that as of April 2024, there were c. 2,700 people in Neath Port Talbot claiming out-of-work benefits, accounting for 3.9% of the resident economically active population. The number of claimants expands to c. 10,300 across the SRIA. Due to data availability, it is not possible to present claimants as an aggregate proportion of the SRIA's economically active population, albeit it is noted that across the other constituent areas, the equivalent measures are 3.8% in Bridgend and 4.2% in Swansea, meaning that the rates are respectively slightly lower and slightly higher than in Neath Port Talbot.
- 14.5.24 Analysis of ONS data (ONS via Nomis, 2024c) regarding Jobseeker's Allowance (JSA) claimants (a sub-set of the above, which also captures the majority now claiming Universal Credit) highlights that 85 people were recorded as specifically seeking employment in construction-related trades in Neath Port Talbot in April 2024, rising to 360 at the scale of the SRIA and c. 2,200 in Wales as a whole. This indicates that there is a degree of construction labour available within the identified impact areas.
- 14.5.25 The creation of employment opportunities is considered a local and national policy priority as an essential component of economic recovery following the Covid-19 pandemic and ongoing cost-of-living crisis. The new Labour Government, elected on 4 July 2024, has expressed its intention to consult on "*a new growth-focused approach*" to planning and development (Speech by the Chancellor, 2024), intended to "*kickstart economic growth*" and deliver infrastructure.
- 14.5.26 The previous Conservative government's 'Build Back Better: Our Plan for Growth strategy document (HM Government, 2021), placed a strong emphasis on protecting jobs and livelihoods and continuing to support the long-term competitiveness of the UK economy through job creation and investment in infrastructure and skills development. The ex-Chancellor's Plan for Jobs (HM Treasury, 2020) described the "*devastating*" effects of Covid-19 on businesses, as well as announcing a range of unprecedented fiscal stimulus and business support measures to assist in the UK's economic recovery.

- 14.5.27 The Levelling Up White Paper (HM Government, 2022) similarly outlined that a key objective of the previous Government over the period to 2030 was to “*boost productivity, pay, jobs and living standards by growing the private sector*” and to close the gap in economic opportunities and outcomes between those top-performing and other areas. The Levelling Up and Regeneration Act (LURA) was passed into law in October 2023, and affirms the commitment to addressing inequality through delivering on the identified levelling up missions.
- 14.5.28 Similarly, the Welsh Government’s ‘Economic Mission: Priorities for a Stronger Economy’ strategy document (Welsh Government, 2023) sets out the government’s overarching objectives for growth and the creation of a more prosperous, greener and equal economy. National economic priorities, include:
- *A just transition and green prosperity*, realising net zero opportunities to support business growth and engaging with businesses and people to move towards a just transition; and
 - *A platform for young people, fair work, skills and success*, targeting resources where they are most needed to help those furthest from the labour market;
- 14.5.29 This is also reflected in NTPC, SC and CCC’s Regional Economic Framework for South West Wales (NTPCBC, SC and CCC, 2021) which highlights economic missions for the region, including establishing south west Wales as a UK leader in renewable energy and the net zero economy; building a strong, resilient and embedded business base; and building the region’s capacity to support economic wellbeing, ensuring that the region has the appropriate supply of skills and talent to meet future demand.
- 14.5.30 NPTC’s Economic Recovery Plan (NTPCBC, 2022) additionally identifies skills and employment opportunities as a key area for action in the local area. As such, Neath Port Talbot’s UKSPF¹⁰ ‘employability’ anchor project will seek to provide a holistic approach to employability across the county, focusing on five key strands of activity, including school-based employability & wellbeing; early engagement activity; preparation for work; paid work opportunities; and ‘in-work’ support and training.
- 14.5.31 The need for new jobs and a boost to pay and living standards remain of vital importance in the current context of inflationary pressures and the cost-of-living crisis, with ONS research reporting that 62% of adults in Great Britain were spending less on essentials as a result of increases in the cost of living (ONS, 2024a). Indeed, whilst average earnings increased by 7.2% between October 2022 and October 2023, the growth in ‘real wages’ (i.e. adjusted for inflation) during the same period was markedly lower, at 1.3% (ONS, 2024b).

Labour market and industry

- 14.5.32 The ONS Business Register and Employment Survey (BRES) (ONS via Nomis, 2023) records that the number of jobs supported in Neath Port Talbot has risen over recent years, growing from 49,000 up to 52,000 over the 5 years between 2017 and 2022; this increase of 3,000 jobs, equates to growth of 6%. The c. 3,730 employee jobs at the Site therefore accounts for c. 7% of total employment in Neath Port Talbot.

¹⁰ The UKSPF is a central pillar of the UK Government’s Levelling Up agenda, and intends to provide £2.6 billion of new funding for local investment by March 2025. All UK areas will receive an allocation via a funding formula rather than a competition.

- 14.5.33 Employment in the SRIA as of 2022 (221,000) remains as recorded in 2017 albeit with a degree of fluctuation between individual years. Employment in Wales grew only marginally between 2017 and 2022, by 0.4%, whilst the number of jobs supported in Great Britain as a whole grew by 4% during this period.
- 14.5.34 BRES data highlights that manufacturing is the largest broad employment sector¹¹ in Neath Port Talbot as of 2022, supporting 9,000 jobs in the area (representing 18% of total local employment). The manufacturing sector's contribution to local employment therefore notably exceeds that recorded at the scales of the SRIA and Wales (both 10%) and Great Britain (7%).
- 14.5.35 As can be expected, given the Site's current operations, manufacture of metals makes a notable contribution to employment in Neath Port Talbot, the c. 4,000 jobs recorded by BRES as being supported by such activities accounting for 8% of local employment, and 2% of employment in the SRIA as a whole.
- 14.5.36 As of 2022, Neath Port Talbot supported employment for 2,500 people in the construction sector, expanding to 11,000 at the scale of the SRIA and 68,000 in Wales. This equates to 5% of total employment in each of the respective local and sub-regional areas, which is in line with the sector's contribution to the total workforce in Wales and Great Britain as a whole (both also 5%).
- 14.5.37 Welsh Government data (Lifelong Learning Record Wales, 2023) indicates that an annual average of 1,950 apprenticeships are completed nationally¹². Assuming a two-year apprenticeship, this indicates that apprentices account for c. 6% of the national construction workforce (c. 68,000) (ONS via Nomis, 2023).

Wages and expenditure

- 14.5.38 The ONS Annual Survey of Hours and Earnings (ASHE) (ONS, 2023c) records gross median resident wages in Neath Port Talbot as c. £28,550 per annum. It is noted that this is 3% higher than the Welsh median annual wage (c. £27,850) and is the fourth highest of all local authorities in Wales. The local Neath Port Talbot median workplace wage is higher still, at c. £29,800 per annum, again exceeding the Wales (c. £27,570) and even UK (£29,700) median workplace figures.
- 14.5.39 Evidence provided by the Applicant indicates that its average employment expenditure per FTE worker equates to c. £54,900, thereby notably exceeding the average wage at all spatial scales.
- 14.5.40 Data sourced from Experian (Experian, 2023) indicates that average expenditure by Neath Port Talbot adult residents (aged 16+) on retail and leisure goods and services equates to c. £10,350 per person per annum. Total resident retail and leisure expenditure in the SRIA equated to £4.68 billion as of 2021, including £1.21 billion in the LIA.
- 14.5.41 BRES data (ONS via Nomis, 2023) also highlights that 2,500 retail jobs have been lost in the SRIA since 2018, including 1,000 in the LIA. This aligns with wider trends, with ongoing analysis conducted by the Centre for Retail Research (Centre for Retail Research, 2024) also indicating that job losses have been widespread in the sector

¹¹ Defined as per the 2007 Standard Industrial Classification (SIC).

¹² Average over period 2017/18, 2018/19 and 2021/22. Data was not reported for 2019/20 and 2020/21 as outcome measures were suspended due to the disruption caused by the Covid-19 pandemic.

nationally. Analysis indicates that approximately 119,400 retail jobs were lost in the UK in 2023, this adding to the preceding losses of approximately 151,500 during 2022, 105,700 during 2021, and 182,600 in 2020, with the impacts of the Covid-19 pandemic having compounded and accelerated existing structural issues threatening the sector, such as the decline of the high street as a retail centre and continued growth of online shopping.

- 14.5.42 Additionally, it is noted that ONS analysis (ONS, 2024a) highlights that annual retail sales volumes dropped by 2.8% in 2023, reaching the lowest levels since 2018, with 62% of adults surveyed stating that they were spending less on non-essentials because of increases in the cost of living.

Neath Port Talbot health profile

- 14.5.43 As recorded in the latest 2021 Census data, the population of the Port Talbot built up area is 31,550. Approximately 20% are over 65 years of age, which is slightly lower than the national average in Wales of 21.3%. Approximately 5% of the population in Port Talbot is non-white, which again is lower than the national average in Wales of 6.2%.

- 14.5.44 The health profile of Neath Port Talbot is summarised in the Wales Centre for Health/Canolfan Iechyd Cymru document 'A Picture of Health in Neath Port Talbot' as follows:

Neath Port Talbot has a profile of health largely worse than the average for Wales. The majority of small areas in Neath Port Talbot are more deprived than the average for Wales however, there are some pockets of relative low-deprivation. There is a growing older population that will have an impact on demand for health services in the future.

- 14.5.45 The document goes on to summarise the key health challenges for the community in Neath Port Talbot:

Neath Port Talbot has a worse life expectancy compared with Wales for males. Education and unemployment, key determinants of individual health, are significantly worse than Wales as is alcohol consumption, premature death from heart disease and suicide.

- 14.5.46 Further detail on the community profile is provided in the Neath Port Talbot Replacement Local Development Plan summarised as follows:

The most recent County Borough has a working age population of 86,300, of whom 6,600 are students. This is the third highest rate of all authorities in Wales (Cardiff 9.8%, Ceredigion 9.5%, NPTC 7.6%). (ONS Population Estimates (2019))

The age profile of NPTC is in line with the average for Wales:

- *Aged 0-15: 17.5% compared to an average of 17.9% in Wales;*
- *Aged 16-64: 61.5% compared to an average of 61.1% in Wales; and*
- *Aged 65 and over: 20.9% compared to an average of 21.0% in Wales. (ONS Population Estimates (2019))*

NPTC has a greater proportion of residents with poorer health and greater disability than the Welsh average:

- *Fewer residents report 'very good or good health' (73.7% compared to 78.1%);*
- *A greater proportion report 'bad or very bad health' (10.3% compared to 7.5%); and*
- *A greater proportion have their day-to-day activities 'limited a lot' (15.7% compared to 11.5%) and 'limited a little' (11.8% compared to 10.8%). (ONS Census (2011))*

The WIMD (2019) shows that NPTC has:

- *The fifth highest proportion of Lower Super Output Areas (LSOAs) within the 10% most deprived in Wales (15.0%);*

- The third highest within the most deprived 20% (33.0%);
- The third highest within the most deprived 30% (45.0%); and
- The fourth highest within the most deprived 50% (69.0%).

Health impact area

14.5.47 As noted above the health impact area is based principally on the Margam 1 and Margam 2 LSOAs but extends outwards to include all adjacent Lower Super Output Areas (LSOA's) as illustrated in **Figure 14.1**.

14.5.48 The health impact area is characterised by high levels of deprivation according to WIMD 2019 data (See **Figures 14.2 to 14.8** and **Table 14.11**). Tai-Bach 2, Aberavon 2, 3 and 4, and Sandfields East 1 LSOAs are within the top 10% most deprived areas in Wales. Port Talbot 3 and Sandfields East 4 LSOAs are within the top 20% most deprived. This is reflected overall in the WIMD 2019 ranks (**Figure 14.2**), but also in health domain data (**Figure 14.8**), and mirrors the Neath Port Talbot health profile described above.

Table 14.11 WIMD 2019 domains data for LSOAs adjacent to the Proposed Development Site

LSOA name	WIMD 2019 rank	Income	Employment	Health	Education	Access to Services	Housing	Community Safety	Physical Environment
Margam 1	500	512	520	858	456	724	1188	45	550
Margam 2	1487	1434	1543	1592	1503	548	1879	813	357
Tai-bach 1	523	548	403	610	420	889	830	626	961
Tai-bach 2	182	224	132	181	107	1589	778	548	278
Tai-bach 3	751	728	720	751	452	1498	1131	1131	206
Port Talbot 1	979	1055	920	1083	679	565	1010	807	788
Port Talbot 2	609	776	583	822	431	940	376	676	291
Port Talbot 3	281	387	246	258	631	1071	184	208	196
Port Talbot 4	607	865	803	667	636	1223	170	506	44
Baglan 1	1133	1261	649	1161	1112	1136	1400	1049	386
Aberavon 2	122	180	130	215	136	583	449	111	133
Aberavon 3	129	260	176	109	75	509	1017	169	143
Aberavon 4	44	69	27	87	72	626	371	231	214

LSOA name	WIMD 2019 rank	Income	Employment	Health	Education	Access to Services	Housing	Community Safety	Physical Environment
Sandfields East 1	132	109	63	139	248	618	1094	458	1748
Sandfields East 3	1092	933	806	926	807	1481	1487	593	1523
Sandfields East 4	348	372	216	276	365	1135	915	702	792

Screening potential impact pathways

14.5.49 **Table 14.12** below considers the potential for impact pathways on health outcomes associated with the Proposed Development for the Local Impact Area, utilising the framework of wider determinants of health for EIA as set out in IEMA (2022). Where determinants of health are assessed in detail elsewhere in the ES, the outcomes reported in the relevant assessment will be relied upon in the human health assessment. These outcomes are summarised in the assessment of human health potential effects presented below.

Table 14.12 Potential for impact pathways on human health outcomes associated with the Proposed Development.

Categories	Wider determinants of health (from IEMA, 2022)	Potential impact pathway and where further information can be found in the ES
Health related behaviours	physical activity	The Site is not publicly accessible and therefore not open to physical activity.
	risk taking behaviour	The Site is not publicly accessible. During construction security fencing will be erected to ensure that the Site is not publicly accessible.
	diet and nutrition	The Proposed Development does not include any provision for the production or sale of food.
Social environment	housing	No housing provision is included in the Proposed Development.
	relocation	No accommodation provision is included in the Proposed Development.
	open space, leisure and play	The Site is not publicly accessible. No public open space, amenity or play space provision is included in the Proposed Development.
	transport modes, access and connections	The impact of transport modes, access and connections is assessed in detail in ES Chapter 12: Transport and Access .

Categories	Wider determinants of health (from IEMA, 2022)	Potential impact pathway and where further information can be found in the ES
	community safety	The Site is not publicly accessible. During construction security fencing will be erected to ensure that the Site is not publicly accessible.
	community identity, culture, resilience and influence	The Proposed Development would allow steel to continue to be produced within the Port Talbot Steelworks. The steelworks is considered synonymous with the identity of Port Talbot.
	social participation, interaction and support	The Site is not publicly accessible and there are no provisions for social participation or interaction on the Site.
Economic environment	education and training	Potential opportunities for educational and training provision is assessed herein.
	employment and income	The health impact of the Proposed Development on employment and income is assessed in herein.
Bio-physical environment	climate change mitigation and adaptation	The potential for impacts on the Proposed Development arising from climate change is assessed in detail in ES Chapter 13: Climate Change .
	air quality	The impact of the Proposed Development on air quality is assessed in detail in ES Chapter 6: Air Quality .
	water quality or availability	The impact of the Proposed Development on water quality or availability is assessed in detail in ES Chapter 9: Surface Water, Flood Risk and Drainage .
	land quality	The impact of the Proposed Development on land quality/contaminated land is assessed in detail in ES Chapter 10: Land, Soil and Groundwater .
	noise and vibration	The impact of the Proposed Development on noise and vibration is assessed in detail in ES Chapter 7: Noise and Vibration .
	radiation	No impacts associated with radiation are envisaged as a result of the Proposed Development.
Institutional and built environment	health and social care services	No health and social care provision is included in the Proposed Development and no impacts on existing health and social care provision is envisaged as a result of the Proposed Development.

Categories	Wider determinants of health (from IEMA, 2022)	Potential impact pathway and where further information can be found in the ES
	built environment	Given the existing industrialised land use of the existing steelworks site, it is not envisaged that the Proposed Development would alter the built form of the Site and surroundings. The landscape and visual impacts of the Proposed Development will be assessed in detail in ES Chapter 5: Landscape and Visual Impact Assessment .
	wider societal infrastructure and resources	The Site is not publicly accessible and is therefore unlikely to impact on wider societal infrastructure and resources in the vicinity of Neath Port Talbot.

14.5.50 Cumulative effects relating to the environmental factors assessed elsewhere in the ES and referenced in **Table 14.12** are summarised in **ES Chapter 15: Cumulative Effects**.

14.6 Project characteristics and embedded mitigation

- 14.6.1 As detailed in the Planning Statement accompanying the Proposed Development's planning application, the Proposed Development forms part of an investment that will secure steel making in the LIA. If the investment does not proceed and the Proposed Development does not go ahead, steel making will eventually cease at the site.
- 14.6.2 TSUK will retain 100 shift-based employees in Port Talbot, who will be identified based on skills and requirements, and offered the opportunity to remain employed through the transition period, with a confirmed role at the end of the transition period.
- 14.6.3 Those employees potentially 'at-risk' of compulsory redundancy in Port Talbot will be offered the opportunity to participate in a skills and re-training scheme to help them secure alternative future employment. The scheme will be structured for up to 12 months beyond the initial expected end-date of the employee's employment with the company. Those participating in the scheme will receive 100% of their normal pay (base & shift premia) for the first month, then £27k p.a. pro rata for the remaining up to 11 months. Individuals would still be able to opt for the enhanced voluntary redundancy terms within the first month of joining the scheme (outlined in more detail below). From the second month onwards, redundancy will be based on 2.1 weeks of pay per years of service and £5,000 'retention' ex-gratia.
- 14.6.4 Information provided by the Applicant additionally indicates that a total of c. £25 million will be invested in decommissioning prior to the commencement of the construction phase. This has the potential to temporarily offset employment impacts associated with cessation of the heavy end in the short term up to the commencement of the construction phase.
- 14.6.5 In addition to the above, the following embedded mitigation related to socio-economics and health have been assessed as part of the Proposed Development:
- Redeployment of supplier activities to retain supply chain employment capacity;
 - A voluntary redundancy package offered by Tata Steel UK Limited (TSUK);

- Internal advertisement of future jobs;
 - A package of support and funding delivered by UK Steel Enterprise Limited (UKSE, the regeneration arm of TSUK) with the objective of creating 2,800 jobs in the South Wales region over 5 years; and
 - Skills and learning, outplacement support, mental health support and reskilling and retraining, funded by a £20 million commitment by TSUK to the £100 million Transition Fund (profiled below).
- 14.6.6 A Tata Steel/Port Talbot Transition Board has been established to provide Ministers with advice on how to protect and grow the economic environment and to support and mitigate the impact on those workers, businesses and communities directly affected by TSUK's decarbonisation transition.
- 14.6.7 The Transition Board is focusing on two areas:
- Immediate support for the people, businesses and communities directly affected; and
 - A plan for regeneration and economic growth for the next decade.
- 14.6.8 Full details of the Transition Board and its constitution are available online, hosted on NPTC's website (NPTC, 2024b).
- 14.6.9 The UK Government and TSUK will make up to £100 million available for interventions in the affected area, and the Transition Board will make recommendations for where that funding could be best invested. The £100 million funding will be in addition to the skills, employability and business support levers that the Welsh Government will use to help those affected. It will also be in addition to the support provided to affected people and businesses by the Department of Work and Pensions.
- 14.6.10 Further details in relation to the embedded mitigation measures identified at **paragraph 14.6.5** are set out below, and referred to as relevant throughout the remainder of this chapter.

Redeployment of supplier activities to retain supply chain employment capacity

- 14.6.11 See detailed explanation set out previously at **paragraph 14.5.10** under 'Interim baseline at commencement of the construction phase: estimated employment effects'.

Voluntary redundancy package

- 14.6.12 The terms offered by TSUK for affected employees are as follows:
- Number of average weeks of pay = 2.8 weeks as the multiplier for each year of service (up to a maximum of 25 years);
 - Minimum redundancy payment of £15,000 (pro-rata for part-time employees); and
 - £5,000 'retention' ex-gratia payment related to maintaining a minimum attendance.

Internal advertisement of future jobs

- 14.6.13 Future jobs associated with the EAF will be advertised on TSUK's internal boards enabling employees to express interest in the new roles to be created.

Package of support and funding delivered by UKSE

14.6.14 UKSE is the regeneration arm of TSUK and has been providing support to steel communities across the UK for 50 years. In addition to TSUK's £20 million contribution to the Transition Board fund, UKSE will provide an additional package of support with the objective of creating up to 2,800 jobs across the South Wales region over a five-year period. The package will provide:

- £6 million of loan of equity funding for new and growing businesses with support of up to £1 million per project;
- £5 million for fast-track, unsecured loans up to £50,000 per business; and
- £1.5 million of grant and micro loan funding (up to £7,500 per business).

14.6.15 Skills and learning, outplacement support, mental health support and reskilling and retraining

14.6.16 TSUK is making a £20 million contribution to the £100 million Transition Fund¹³. There are four priority uses for the transition fund which provide embedded mitigation for socio-economic and health effects. They are:

- Skills and learning accreditation;
- Outplacement support;
- Mental health support; and
- A re-skilling and re-training scheme.

14.6.17 Details in relation to these priority uses are set out below.

Skills and learning accreditation commitments

14.6.18 TSUK will work with the Skills, Business & Well-being Sub-Group of the Transition Board to provide evidence-based guidance as to how best to ensure that the re-training of affected employees can maximise their future employability. Ensuring that affected members of the workforce have an opportunity to convert the skills they have gained while working at Tata Steel into widely recognised qualifications is a key priority for TSUK.

14.6.19 TSUK is working with Bridgend College, which currently supports existing National Vocation Qualification (NVQ) programmes across the Port Talbot works to offer production-based employees in Port Talbot the opportunity to convert the skills they have gained while working at Tata Steel into nationally-recognised qualifications. This will support them in accessing future employment opportunities.

14.6.20 The first pilot programme was successfully completed in July 2024 with operators completing a City & Guilds NVQ Level 2 Performing Manufacturing Operations qualification - a five day programme containing six modules. A further cohort of operators are due to start their qualification 'transfers' in the near future.

Outplacement support

14.6.21 TSUK has engaged with third party providers to determine the potential cost of providing comprehensive outplacement support to affected members of the workforce, including:

- Providing each affected employee with a one-to-one interview with a qualified adviser. The objective of each assessment will be to identify each individual's transferable skills and potential training requirements, and to advise the individual

¹³ The remaining £80 million is to be funded by the UK Government.

on next steps, including helping them to access relevant resources such as training courses, job search support, CV writing support and interview training.

- Working with an outplacement service provider, TSUK will connect affected employees with companies that have expressed an interest in their skillsets.
- TSUK and stakeholder partners (such as the Department for Work and Pensions) will conduct a number of 'careers-fair' type events in Port Talbot with other employers.
- TSUK will work with the relevant workstream of the Skills, Business and Well-Being Sub-Group to ensure that all current TSUK apprentices have the opportunity to complete their apprenticeship and provide this cohort with the support they need to find new opportunities.
- TSUK will work in concert with the Department for Work and Pensions, Careers Wales, Money and Pensions Service, South Wales Police and others to provide expert support to affected employees.

14.6.22 Following this engagement process and the above criteria, specialist outplacement provider, Lee Hecht Harrison (LHH), has been appointed to provide all TSUK employees whose jobs are affected by the company's restructure and transformation with independent professional outplacement support. This follows a joint Company and Trade Union review of several potential providers.

14.6.23 This specialist outplacement support aims to complement existing support available through the Transition Board and various agencies.

14.6.24 Outplacement support is a service that is designed to support employees who might be affected by redundancy, by providing access to resources and a support network designed to help them successfully transition to the next stage of their career.

14.6.25 A comprehensive package of support will be available to help individuals consider what want they may want to do next. Expert consultants are able to provide advice on looking for and securing career moves such as clarifying future needs and training, assistance with CV writing and preparing for interviews.

14.6.26 Initially this independent, professional outplacement support will be focused along the South Wales corridor. LHH will be on site in Port Talbot holding outplacement awareness sessions within departments and works areas outlining the support available and how to access it. A UK-wide roll-out is planned.

14.6.27 An online career portal will also be available with career planning tools, access to job postings, a market leading CV builder & online interview centre, LinkedIn learning, and additional topic information to support individuals. In addition, there are a selection of workshops and briefings covering a range of topics associated with transition and careers.

Mental health support

14.6.28 Within its existing arrangements, TSUK offers a number of mental health support provisions to its employees including:

- The Company's independent and confidential Employee Assistance Programme (EAP) which provides counselling support, as well as support and advice on a number of wider matters such as financial concerns.
- Occupational health provision delivering direct support from medical professionals and appropriate onward support.

- Nearly 500 trained mental health first aiders across TSUK, who are able to provide initial support and signposting to further services.

Re-skilling and re-training scheme

- 14.6.29 TSUK will design and implement a scheme to be available for those selected as potentially compulsory redundant and offer a period of extended employment with the focus on re-skilling. This will support individuals with securing future alternative employment with a new employer.

14.7 Assessment of potential effects

Construction effects

Predicted construction effects

Change in direct, indirect and induced employment during the construction phase

- 14.7.1 Evidence provided by the Applicant (**ES Appendix 12.1**) indicates that an average of 550 FTE jobs could be supported by demolition and construction during the construction phase¹⁴.
- 14.7.2 Not all construction phase jobs will be attributable to the defined impact areas, and will therefore be subject to additional considerations. The Applicant's objective is for the construction workforce and construction contractor organisations to be as locally-based as possible. However, for the purposes of assessing a worst-case socio-economic scenario (i.e. lowest employment at each spatial scale), it is considered that – as with the established baseline – a proportion of demolition and construction jobs will be taken by those living across Wales and the UK as a whole, outside of the LIA or the SRIA (referred to as 'leakage'). Furthermore, a proportion of jobs will be taken by those who, in the absence of the Proposed Development, could otherwise be working on alternative construction projects (referred to as 'displacement').
- 14.7.3 Following application of appropriate assumptions for leakage¹⁵ and displacement¹⁶ – respectively in line with published data (ONS, 2023a) and guidance (HCA, 2014) – it is estimated that 410 net FTE jobs will be directly supported across the UK and Wales by activities associated with demolition and construction, of which 380 jobs could be taken by those living in the SRIA, inclusive of 230 for residents of the LIA.

¹⁴ Average number of jobs supported during the demolition and construction phase informed by transport modelling, aligning with data informing the assessment of effects within **ES Chapter 12 Transport and Access**. The nature of activities and associated employment required on-site will fluctuate during demolition and construction, and the workforce required to deliver the Proposed Development is estimated to equate to a monthly average of c. 550 on-site jobs over the course of mid-2025 and end-2027 (peaking at c. 990 in September 2026). Average employment throughout the construction phase as a whole is the most suitable figure to inform the socio-economic assessment as this enables comparison with the establish baseline.

¹⁵ In line with 2021 Census data, leakage rates of 45% and 15% are applied at the respective scales of the LIA and SRIA, with zero leakage assumed at the scale of Wales and the UK.

¹⁶ In line with HCA guidance, a 'low' (25%) rate of displacement is applied at the scale of all impact areas.

- 14.7.4 Based on the application of appropriate sector-based multipliers¹⁷ based on guidance (HCA, 2014), as well as ONS (ONS, 2023b) and other (Scottish Government, 2023) published statistical data, it is estimated that the construction of the Proposed Development could support a further 620 FTE jobs across the UK via indirect and induced effects, of which 320 jobs could be taken by those living in the SRIA, inclusive of 190 for residents of the LIA.
- 14.7.5 Therefore, demolition and construction activities as a result of the Proposed Development could support 1,030 FTE jobs in the UK, inclusive of 730 in the WIA, 570 in the SRIA and 290 for residents of the LIA. This is summarised at **Table 14.13** below.

Table 14.13 Construction phase employment

	LIA	SRIA	WIA	UKIA
Gross FTE Employment	550			
Direct FTE Employment	230	380	410	410
Indirect/Induced FTE Employment	60	190	320	620
Total FTE Employment	290	570	730	1,030

- 14.7.6 The net employment impact describes the sum of direct and indirect/induced employment effects generated during demolition/construction in comparison with the established baseline (as set out earlier in the chapter). It should be noted that this calculation retains the allowance for the Applicant's inherent/embedded/primary mitigation measures with regard to redeployment of supply chain expenditure, meaning that indirect/induced employment will therefore be maintained in line with that set out at **Table 14.10**.
- 14.7.7 Therefore, the assessment finds that a net reduction of 3,590 FTE jobs will occur as a result of the Proposed Development at the scale of the UK during the construction phase, with 2,520 jobs being lost in the WIA, 1,880 in the SRIA and 1,140 in the LIA.
- 14.7.8 Construction phase employment impacts are summarised below at **Table 14.14**.

¹⁷ Multipliers applied: 1.25 (LIA); 1.50 (SRIA); 1.77 (Wales); 2.50 (UK). LIA and SRIA multipliers are based on HCA guidance. WIA multipliers reflect Type 2 (indirect and induced) national multipliers for construction produced by the Scottish Government – whilst the Welsh Government has not published equivalent data, use of Scottish Government data is considered appropriate for the purposes of the assessment. UK multipliers reflect Type 1 (indirect-only) UK multipliers for construction produced the ONS (2.21), with an additional assumption applied (proportionally in line with the difference between Scottish Type 1 and Type 2 multipliers) to estimate UK Type 2 (indirect and induced) multipliers.

Table 14.14 Construction phase total (direct, indirect and induced) net employment impacts

Direct and Indirect/Induced FTE Employment	LIA	SRIA	WIA	UKIA
(a) Established baseline: Total (Table 14.9)	2,890	5,020	6,720	9,790
(b) Employment at commencement of construction phase (Table 14.10)	1,460	2,570	3,460	5,170
(c) Construction phase: Uplift (Table 14.13)	290	570	730	1,030
Construction phase: Total (b+c)	1,750	3,140	4,190	6,200
Construction phase: Total net impact against established baseline (b+c) – (a)	-1,140	-1,880	-2,520	-3,590

14.7.9 Embedded mitigation measures (detailed at Section 14.6) specifically relating to employment and to be delivered by TSUK include:

- A voluntary redundancy package;
- Internal advertisement of future jobs; and
- Package of support and funding delivered by UKSE.

14.7.10 In addition to these embedded mitigation measures to lessen the adverse impact of direct employment loss, the Transition Fund will also be targeted on skills, training and employment readiness initiatives to enable affected employees to compete and secure new roles in a range of industries. These priority areas are also detailed at Section 14.6.

14.7.11 It should be noted that, given that the majority of the construction workforce is anticipated to be drawn from the LIA and/or SRIA, the construction phase is not anticipated to generate significant impacts with regard to non-local workers seeking temporary accommodation during construction. Equally, it should be noted that an occupational health centre is provided on-Site, operating fixed hours with fully trained doctors, nurses and physios. These facilities will be accessible to the construction phase workforce, thereby resulting in no additional demand on such services and social infrastructure in the wider locality.

14.7.12 The sensitivity of the labour force is considered to be high, given the relatively high rates of overall unemployment recorded in the SRIA (home to the majority of the established baseline workforce) relative to wider geographies. The contribution of employment at the Site as per the established baseline (with direct on-site jobs accounting for c. 7% of total employment in the LIA) and the reduction of employment opportunities that will already have been recorded by the time of the commencement of the construction phase also contributes to the high sensitivity. Additionally, this also reflects the ongoing socio-economic context of inflationary pressures and the cost-of-living crisis, as well as the known importance of employment and income as determinants of human health and wellbeing.

- 14.7.13 Embedded mitigation relating to employment effects and including the voluntary redundancy package will assist in limiting adverse impacts on individuals in the short term. The activities to be funded by UKSE will help to support the creation of new job opportunities in South Wales which may in the future provide alternative employment opportunities for affected TSUK employees and other economically active people seeking employment in the LIA and SRIA.
- 14.7.14 The estimated net reduction of 1,140 FTE jobs in the LIA during the construction phase, expanding to a loss of 1,880 jobs in the SRIA, 2,520 jobs in the WIA, and 3,590 at the UK scale is a magnitude of change that is considered to be large.
- 14.7.15 Therefore, there is likely to be a direct, temporary, medium-term, adverse effect on the labour force as a result of the change in direct, indirect and induced employment during the construction phase which is considered to be **major**.

Change in education, skills & training provision during the construction phase

- 14.7.16 Jobs and activity created within the construction sector is likely to improve the ability of workers to access related employment and training opportunities.
- 14.7.17 As identified in the baseline section, economic activity and employment rates in the SRIA (home to the majority of the established baseline workforce) is lower than at wider geographies. It is additionally highlighted that c. 85 people in the LIA are recorded as being unemployed and specifically seeking roles in the construction sector, rising to 360 at the scale of the SRIA and c. 2,220 in Wales as a whole; a proportion of these people could benefit from new construction phase employment opportunities created by the delivery of the Proposed Development.
- 14.7.18 Contractor organisations delivering the Proposed Development are likely to support apprentice roles, thereby offering further learning and training opportunities. As set out in the baseline, Welsh Government data (Lifelong Learning Record Wales, 2023) indicates that apprentices account for c. 6% of the national construction workforce. Therefore, based on this benchmark it is considered reasonable to assume that there could be up to 30 apprentices at any one time counted amongst the c. 550 gross direct FTE jobs supported on average during construction.
- 14.7.19 TSUK is making a £20 million contribution to the £100 million transition fund which will fund activities and initiatives which provide embedded mitigation. There are four priority uses for the Transition Fund which will contribute to mitigation of socio economic effects. They are:
- Skills & Learning Accreditation
 - Outplacement Support
 - Mental Health Support
 - A Re-Skilling & Re-Training Scheme
- 14.7.20 Embedded mitigation in relation to each of these four priority uses is detailed above at Section 14.6.
- 14.7.21 The sensitivity of the labour force is considered to be high, given the relatively high rates of overall unemployment recorded in the SRIA (home to the majority of the established baseline workforce) relative to wider geographies, as well as the number of people claiming JSA and other unemployment-related benefits who are seeking employment in

the construction sector at all spatial scales. This level of sensitivity is also reflective of the importance of access to education, skills and training opportunities (and, subsequently, fulfilling employment) to people's physical and mental health and wellbeing and socio-economic security.

- 14.7.22 The magnitude of change is considered to be small. Whilst the creation of jobs will provide new opportunities for people seeking roles in the construction sector (particularly in the LIA and SRIA) to access employment – including people who had been previously unemployed and are re-entering the labour market, as well those gaining skills and qualifications through apprenticeships and other training initiatives – it is anticipated that a proportion of roles created, which will be taken up by such groups, likely represent a relatively low proportion of the total jobs created. Embedded mitigation relating to education, skills and training provision and delivered through the Transition Fund will be ongoing during the construction phase and will help to improve the skills and employability of affected TSUK employees.
- 14.7.23 Therefore, there is likely to be a direct, temporary, medium-term, beneficial effect which is considered to be **minor**.

Health effects during the construction phase

- 14.7.24 **Table 14.15** provides a summary of construction phase health related effects assessed elsewhere in the ES.

Table 14.15 Summary of construction phase health related effects as reported elsewhere in the ES.

Wider determinants of health (from IEMA, 2022)	Summary of health related effects
Transport modes, access and connections	ES Chapter 12: Transport and Access has concluded no significant road traffic related environment effects during the construction phase of the Proposed Development. It is therefore concluded that there is no potential impact pathway for construction phase traffic and transport related effects on human health as a result of the Proposed Development.
Employment and income	A potential impact pathways exists between high levels of unemployment and low life expectancy of males in the LIA. The potential for construction phase employment and income related health effects is therefore considered in further detail below.

Wider determinants of health (from IEMA, 2022)	Summary of health related effects
Climate change mitigation and adaptation	<p>ES Chapter 13: Climate change has concluded that the impacts on greenhouse gas emissions as a result of the change from blast furnaces to electrification of steel making would have a major beneficial significant effect on the global climatic system.</p> <p>With respect to climate resilience, the climate change ES chapter has concluded no significant effects in relation to physical risks (wind speed, water availability or ground conditions), with negligible adverse effects on water resources and flood risk.</p> <p>ES Chapter 8: Biodiversity concludes, with respect to climate change resilience, significant beneficial effects to coastal floodplain grazing marsh, open mosaic habitat, other habitats, invertebrates and invasive non-native species, through retention where possible, habitat restoration and enhancement, implementation of the CEMP and LEMP, and biodiversity net benefit.</p> <p>It is therefore concluded that there is no potential impact pathway for construction phase climate change related effects on human health as a result of the Proposed Development.</p>
Air quality	<p>ES Chapter 6: Air quality has concluded no significant construction phase effects as a result of the Proposed Development. Fugitive dust from demolition and construction related activities would be managed through a Construction Environmental Management Plan or Dust Management Plan to control any significant effects. Air quality impacts from construction traffic and plant would result in negligible or beneficial air quality effects at human receptors. It is therefore concluded that there is no potential impact pathway for construction phase air quality related effects on human health outcomes as a result of the Proposed Development.</p>
Water quality or availability	<p>ES Chapter 9: Surface Water, Flood Risk and Drainage has concluded mostly negligible or minor (not significant) effects during the construction phase with no requirement for additional mitigation measures. This includes a negligible risk of negative effects with particular regards to potential pollution and water quality impacts during the construction phase. It is therefore concluded that there are no impact pathways for construction phase surface water, flood risk and drainage effects relating to human health outcomes.</p>

Wider determinants of health (from IEMA, 2022)	Summary of health related effects
Land quality	ES Chapter 10: Land, Soil and Groundwater has concluded that in terms of land and soil, these features are not considered to be sensitive at the Site, and with respect to groundwater features these are of medium sensitivity, which could be used as a local water resource. During the construction of the Proposed Development, embedded mitigation measures associated with standard construction management are considered sufficient to avoid impacts, with no significant construction phase residual effects and with no additional mitigation measures required. It is therefore concluded that there is no potential impact pathway for construction phase land, soil and groundwater related effects on human health as a result of the Proposed Development.
Noise and vibration	ES Chapter 7: Noise and Vibration has concluded that based on the anticipated activities that will take place during the construction phase of the Proposed Development, adverse effects generated by noise and vibration at the nearest sensitive receptors would not be significant.
Built environment	ES Chapter 5: Landscape and Visual Impact Assessment has concluded that whilst there would be limited significant visual effects during construction of the proposed development, this would be short-term and localised in nature.

14.7.25 The only potential health related effect identified in **Table 14.16** that has not been addressed elsewhere in the ES relates to the employment and income effect of construction phase job losses.

14.7.26 The health profile for Neath Port Talbot indicates a high sensitivity to changes in local health outcomes. There is a worse life expectancy for males compared with Wales average, attributed to alcohol consumption and premature death from heart disease and suicide, with education and unemployment being key determinants of an individual's health. Given these health inequalities, there is potential for an impact pathway between any levels of increased unemployment as a result of job losses and increased mortality.

14.7.27 TSUK is making a £20 million contribution to the £100 million transition fund which will fund activities and initiatives which provide embedded mitigation and contribute to lessening adverse impacts relating to health. A summary of embedded mitigation is as follows (further details are presented in Section 14.6):

- Skills and learning accreditation;
- Outplacement support;
- Mental health support; and
- A re-skilling and re-training scheme.

14.7.28 Given the scale of construction phase job losses (1,140 net losses in the LIA) medium-term detrimental effect on health outcomes locally cannot be ruled out. However, in light of the scale of embedded mitigation associated with the Transition Fund, it is also

considered that this would ameliorate some of the impact on health inequalities in the LIA.

- 14.7.29 Therefore the overall effect on health outcomes during the construction phase is considered to be **moderate** adverse effect.

Proposed additional mitigation

Change in direct, indirect and induced employment during the construction phase

- 14.7.30 No additional mitigation further to the embedded mitigation set out above is proposed in relation to this effect.

Change in construction education, skills & training provision during the construction phase

- 14.7.31 No additional mitigation further to the embedded mitigation set out above is proposed in relation to this effect.

Additional human health mitigation proposed during the construction phase

- 14.7.32 No additional human health related additional mitigation is proposed.

Residual construction phase effects

Change in direct, indirect and induced employment during the construction phase

- 14.7.33 In the absence of additional mitigation, the residual effect in relation to change in direct, indirect and induced employment during the construction phase is the same as that reported in the pre-additional mitigation scenario (a **major, direct, temporary, medium-term, adverse** effect). This effect is considered to be **significant**.

Change in construction education, skills & training provision during the construction phase

- 14.7.34 In the absence of additional mitigation, the residual effect in relation to change in construction education, skills & training provision during the construction phase is the same as that reported in the pre- additional mitigation scenario (a **minor, direct, temporary, medium-term, beneficial** effect). This effect is considered to be **not significant**.

Human health effects during the construction phase

- 14.7.35 In the absence of additional mitigation, the residual effect on health outcomes during the construction phase is the same as that reported in the pre-mitigation scenario (a **moderate indirect, temporary, medium-term adverse** effect). This effect is considered to be **significant**.

Operational effects

Predicted operational effects

Change in direct, indirect and induced employment during the operational phase

- 14.7.36 Evidence provided by the Applicant indicates that c. 300 direct FTE jobs could be supported by new operations at the Proposed Development once complete. Therefore, adding this to the on-site workforce, having already accounted for the reduction of c.

1,930 direct FTE jobs from the established baseline as a result of the ceasing of heavy end, indicates that direct on-site FTE employment once the Proposed Development is completed and fully operational will total 2,060. This equates to a net on-site reduction of 1,630 jobs as a result of the Proposed Development in comparison with the established baseline.

14.7.37 This is summarised at **Table 14.16** below.

Table 14.16 Net change in direct operational phase employment from established baseline

	UKIA
Established baseline: direct FTE employment	3,690
Proposed Development: direct FTE employment reduction	-1,930
Proposed Development: direct FTE employment addition	300
Proposed Development: direct FTE employment upon completion	2,060
Proposed Development: direct FTE employment net change	-1,630

14.7.38 As with the established baseline and the construction phase, not all operational phase jobs will be attributable to the defined impact areas, and will therefore be subject to additional considerations. As with the established baseline and construction phase, it is likely that a proportion of operational phase jobs will continue to be taken by those living across Wales and the UK as a whole, outside of the LIA or the SRIA (referred to as 'leakage'). Given that it is understood that members of the existing workforce will be redeployed to other Site operations following completion of the Proposed Development, displacement is not considered to be relevant as an additionality consideration in relation to this effect.

14.7.39 Following application of appropriate assumptions for leakage¹⁸ (assuming, for the purposes of the assessment and in the absence of alternative information, that the geographic split of the workforce will remain in line with the established baseline) it is estimated that, following the completion of the Proposed Development, 2,060 FTE jobs will be directly supported across the UK, including 2,040 in Wales, of which 1,650 could be taken by those living in the SRIA, inclusive of 1,080 for residents of the LIA.

14.7.40 Based on the application of appropriate multipliers¹⁹ based on guidance (HCA, 2014), as well as ONS (ONS, 2023b) and other (Scottish Government, 2023) published statistical data, it is estimated that new operations following delivery of the Proposed Development could support 3,660 FTE jobs across the UK via indirect and induced effects, inclusive of 1,840 in the WIA, 1,240 in the SRIA and 580 in the LIA. It should be noted that this calculation retains the allowance for the Applicant's inherent/embedded/primary

¹⁸ In line with the established baseline, leakage rates of 48% and 20% are applied at the respective scales of the LIA and SRIA, with 1% leakage assumed at the scale of Wales and zero leakage from the UK.

¹⁹ Multipliers applied: 1.50 (LIA); 1.70 (SRIA); 1.84 (Wales); 2.65 (UK). LIA and SRIA multipliers are based on HCA guidance. WIA multipliers reflect Type 2 (indirect and induced) national multipliers for iron & steel production produced by the Scottish Government – whilst the Welsh Government has not published equivalent data, use of Scottish Government data is considered appropriate for the purposes of the assessment as a comparable national economy. UK multipliers reflect Type 1 (indirect-only) UK multipliers for iron & steel production produced the ONS (2.27), with an additional assumption applied (proportionally in line with the difference between Scottish Type 1 and Type 2 multipliers) to generate UK Type 2 (indirect and induced) multipliers.

mitigation measures with regard to redeployment of supply chain expenditure, meaning that indirect/induced employment will therefore be maintained in line with that set out at **Table 14.10**.

14.7.41 Therefore, the Site once the Proposed Development is complete and operational could support a total of 5,720 FTE jobs in the UK, inclusive of 3,880 in the WIA, 2,890 in the SRIA and 1,660 for residents of the LIA.

14.7.42 This is summarised at **Table 14.17** below.

Table 14.17 Operational phase employment

	LIA	SRIA	WIA	UKIA
Gross FTE Employment	2,060			
Direct FTE Employment	1,080	1,650	2,040	2,060
Indirect/Induced FTE Employment	580	1,240	1,840	3,660
Total FTE Employment	1,660	2,890	3,880	5,720

14.7.43 The net employment impact describes the sum of direct and indirect/induced employment effects generated during the operational period once the Proposed Development is complete in comparison with the established baseline (as set out earlier in the chapter). Again, it should be noted that this calculation retains the allowance for the Applicant's inherent/embedded/primary mitigation measures with regard to redeployment of supply chain expenditure, meaning that indirect/induced employment will be maintained in line with that set out at **Table 14.10**.

14.7.44 Therefore, the assessment finds that a net reduction of 4,070 FTE jobs will occur as a result of the Proposed Development at the scale of the UK once the Proposed Development is complete and fully operational in comparison with the established baseline, with 2,830 jobs being lost in the WIA, 2,130 in the SRIA and 1,230 in the LIA.

14.7.45 Operational phase employment impacts are summarised below at **Table 14.18**.

Table 14.18 Operational phase total (direct, indirect and induced) net employment impacts

Direct and Indirect/Induced FTE Employment	LIA	SRIA	WIA	UKIA
(a) Established baseline: Total (Table 14.9)	2,890	5,020	6,710	9,790
(b) Operational phase: Total (Table 14.17)	1,660	2,890	3,380	5,720
Operational phase: Total net impact against established baseline (a-b)	-1,230	-2,130	-2,830	-4,070

14.7.46 Embedded mitigation measures (detailed at Section 14.6) specifically relating to employment during the operational stage include:

- Internal advertisement of future jobs; and

- Package of support and funding delivered by UKSE.

- 14.7.47 In addition to these embedded mitigation measures to lessen the adverse impact of direct employment loss, the Transition Fund will also be targeted on skills, training and employment readiness initiatives to enable affected employees to compete and secure new roles in a range of industries.
- 14.7.48 The sensitivity of the labour force is considered to be high, given the relatively high rates of overall unemployment recorded in the SRIA (home to the majority of the established baseline workforce) relative to wider geographies. The contribution of employment at the Site as per the established baseline (with direct on-site jobs accounting for c. 7% of total employment in the LIA) and the reduction of employment opportunities that will already be recorded by the time of the commencement of the operational phase also contributes to the high sensitivity. Additionally, this also reflects the ongoing socio-economic context of inflationary pressures and the cost-of-living crisis, as well as the known importance of employment and income as determinants of human health and wellbeing.
- 14.7.49 The estimated net reduction of 1,230 FTE jobs in the LIA during the operational phase, expanding to a loss of 2,130 jobs in the SRIA, 2,830 jobs in the WIA, and 4,070 at the UK scale is a magnitude of change that is considered to be large.
- 14.7.50 Therefore, there is likely to be a direct, permanent, long-term, adverse effect on the labour force as a result of the change in direct, indirect and induced employment during the operational phase which is considered to be **major**.

Change in employee expenditure during the operational phase

- 14.7.51 As set out in the baseline section, it is estimated annual average retail and leisure expenditure by adults living in the LIA²⁰ equates to £10,350 per annum. ONS data indicates that workers within the 'higher technical' socio-economic classification (considered to be that which best-describes the established baseline employment supported on-site that is to be impacted by the Proposed Development) spend c. 20% more than the average adult on retail and leisure goods and services (ONS, 2018a), whilst unemployed adults spend 43% less than average, and retired adults spend 14% less than average (ONS, 2018b).
- 14.7.52 Application of the estimated 'higher technical' (c. £12,410) and recorded average (£10,350) expenditure figures (as presented above) respectively to the established baseline's direct (2,950) employees at the Site living within the SRIA and the SRIA's indirect/induced workforce (2,070) indicates that the established baseline worker expenditure supported by the Site within the SRIA totals £58.0 million annually²¹.
- 14.7.53 The Applicant has advised that a notable proportion of direct employees who will no longer work at the Site following the Proposed Development are likely to retire. Others could find new jobs or, as a worst-case scenario, remain unemployed. This equally

²⁰ Neath Port Talbot resident expenditure data informs the assessment, as the largest single home local authority of existing workers, and is assumed for the purposes of the assessment to be replicated across the SRIA. Expenditure figures are residence-based, hence the assessment's focus on direct and indirect/induced workers living within the LIA and the SRIA, as the most suitable impact areas within which to perceive change in expenditure.

²¹ Average expenditure figures applied to indirect/induced employment, given that it is not possible to conclude on the socio-economic classification of these jobs.

applies to those indirect and induced jobs that are to be lost as a result of the Proposed Development.

- 14.7.54 Given that it is not possible to ascertain at time of writing the future socio-economic status of the impacted workforce, it is assumed – as a worst-case scenario for the purposes of the assessment – that the expenditure profile of those holding jobs that are to be lost as a result of the Proposed Development will revert to that which is consistent with a person who is unemployed (estimated as £5,950 annually, based on application of the ONS data cited above to average Neath Port Talbot resident expenditure).
- 14.7.55 Therefore, applying this to the total net reduction of direct (1,300) and indirect/induced (830) employment in the SRIA (totalling 2,130), it is estimated that expenditure in the area could reduce by c. £12.0 million.
- 14.7.56 This would represent a reduction of c. 21% against the established baseline worker expenditure supported by the Site (£58.0 million). Whilst acknowledging that the scale of change of expenditure at the scale of the SRIA is relatively small (accounting for just 0.3% of the £4.68 billion annual total recorded in the area), it is considered that impacts will be more pronounced at the scale of the LIA; a high proportion (48%) of the Site's existing direct workforce live locally in the area, meaning that loss of resident income is likely to mean reduced expenditure on local goods and service. The reduced number of workers travelling into the Site from elsewhere is also likely to result in reduced expenditure at local businesses in the vicinity of the Site.
- 14.7.57 Embedded mitigation relating to education, skills and training provision will help to improve the employability of individuals seeking work in the LIA and SRIA, with the potential to lessen the expenditure effects. The package of support for job creation to be delivered by UKSE will also help to create opportunities for employment and earnings over the operational phase.
- 14.7.58 The sensitivity of businesses and associated labour force is considered to be high, given the relatively high rates of overall unemployment recorded in the SRIA (home to the majority of the established baseline workforce) relative to wider geographies. Additionally, this also reflects the ongoing socio-economic context of inflationary pressures and the cost-of-living crisis, and the related impact on consumer expenditure. It is also acknowledged that there have been considerable job losses in retail sectors across the wider economy over recent years, with structural issues threatening the sector (such as the rise of online shopping), which has also been felt in the LIA and SRIA.
- 14.7.59 The estimated net reduction of £12.0 million expenditure in the SRIA economy, a notable proportion of which is likely to be withdrawn from LIA, is a magnitude of change that is considered to be medium. This acknowledges the context of the Site as the LIA's largest single employment location and its contribution towards sustaining local employment and earnings (accounting for 7% of total local employment, with workers earning higher than average wages) and the fact that the estimated expenditure capacity of its direct and indirect/induced workforce will be reduced by c. 21% as a result of the Proposed Development.
- 14.7.60 Therefore, there is likely to be a direct, permanent, long-term, adverse effect on businesses and associated labour force as a result of the change in employee expenditure during the operational phase which is considered to be **moderate**.

Health effects during the operational phase

14.7.61 **Table 14.19** provides a summary of operational phase health related effects assessed elsewhere in the ES.

Table 14.19 Summary of operational phase health related effects as reported elsewhere in the ES.

Wider determinants of health (from IEMA, 2022)	Summary of health related effects
Transport modes, access and connections	ES Chapter 12: Transport and Access has concluded no significant road traffic related environment effects during the operational phase of the Proposed Development. It is therefore concluded that there is no potential impact pathway for construction phase traffic and transport related effects on human health as a result of the Proposed Development.
Employment and income	A potential impact pathway exists between high levels of unemployment and low life expectancy of males in the local impact area. The potential for operation phase employment and income related health effects is therefore considered in further detail below.
Climate change mitigation and adaptation	<p>ES Chapter 13: Climate Change has concluded that the impacts on greenhouse gas emissions as a result of the change from blast furnaces to electrification of steel making would have a major beneficial significant effect on the global climatic system.</p> <p>With respect to climate resilience, the climate change ES chapter has concluded no significant effects in relation to physical risks (wind speed, water availability or ground conditions), with negligible adverse effects on water resources and flood risk.</p> <p>ES Chapter 8: Biodiversity concludes, with respect to climate change resilience, significant beneficial effects to coastal floodplain grazing marsh, open mosaic habitat, other habitats, invertebrates and invasive non-native species, through retention where possible, habitat restoration and enhancement, implementation of the CEMP and LEMP, and biodiversity net benefit.</p> <p>It is therefore concluded that there is no potential impact pathway for operational phase climate change related effects on human health as a result of the Proposed Development.</p>
Air quality	ES Chapter 6: Air Quality has concluded no significant operational phase effects as a result of the Proposed Development. Impacts at ecological receptors were generally beneficial. Best Available Techniques and a pre-existing Air Quality Management Plan will be used to control dust emissions from the Proposed Development when operational. Residual effects will be not significant. It is therefore concluded that there is no potential impact pathway for operational phase air quality related effects on human health outcomes as a result of the Proposed Development.

Wider determinants of health (from IEMA, 2022)	Summary of health related effects
Water quality or availability	ES Chapter 9: Surface Water, Flood Risk and Drainage has concluded mostly negligible or minor (not significant) effects during the operational phase with no requirement for additional mitigation measures. Positive operational effects have been assessed relating to water quality to Swansea Bay WFD Waterbody and on water quality receptors as a result of reduction of water abstraction volumes and reduced risk of pollution and/or sedimentation to waterbodies. It is therefore concluded that there are no impact pathways for operational phase surface water, flood risk and drainage effects relating to human health outcomes.
Land quality	ES Chapter 10: Land, Soil and Groundwater has concluded that in terms of land and soil, these features are not considered to be sensitive at the Site, and with respect to groundwater features these are of medium sensitivity, which could be used as a local water resource. During the operation phase of the Proposed Development, the potential impacts to the identified receptors are negligible or minor effect, as a result of mitigation of adherence to regulatory practices and permit requirements, reducing potential impacts. There are no significant operational phase residual effects and with no additional mitigation measures required. It is therefore concluded that there is no potential impact pathway for operational phase land, soil and groundwater related effects on human health as a result of the Proposed Development.
Noise and vibration	ES Chapter 7: Noise and Vibration has concluded that based on the anticipated activities that will take place during the operational phase of the Proposed Development, adverse effects generated by noise and vibration at the nearest sensitive receptors would not be significant.
Built environment	ES Chapter 5: Landscape and Visual Impact Assessment has concluded there would be no significant visual effects for visual receptors during operation, partially due to the extent of screening locally and also because of the extent of existing industrial development on site and in the coastal plain area. All long-term effects were assessed as not significant as it is considered that the Proposed Development would be integrated into the existing Margam Steel Works landscape

14.7.62 The only potential health related effect identified in **Table 14.19** that has not been addressed elsewhere in the ES relates to the employment and income effect of operational phase job losses.

14.7.63 The health profile for Neath Port Talbot indicates a high sensitivity to changes in local health outcomes. There is a worse life expectancy for males compared with the Wales average, attributed to alcohol consumption and premature death from heart disease and suicide, with education and unemployment being key determinants of an individual's health. Given these health inequalities, there is potential for an impact pathway between any level of increased unemployment as a result of job losses and increased mortality.

14.7.64 TSUK is making a £20 million contribution to the £100 million transition fund which will fund activities and initiatives which provide embedded mitigation during the operational phase. There are four priority uses for the Transition Fund which will contribute to mitigation to health effects. A summary of embedded mitigation is as follows (further details are presented in Section 14.6):

- Skills and learning accreditation;
- Outplacement support;
- Mental health support; and
- A re-skilling and re-training scheme.

14.7.65 Given the scale of operational phase job losses (1230 net losses in the LIA) a long-term detrimental effect on health outcomes locally cannot be ruled out. However in light of the scale of embedded mitigation associated with the Transition Fund, it is also considered that this would ameliorate some of the impact on health inequalities in the LIA.

14.7.66 Therefore the overall effect on health outcomes during operational phase is considered to be **moderate** adverse effect.

Proposed additional mitigation

Change in direct, indirect and induced employment during the operational phase

14.7.67 No additional mitigation further to the embedded mitigation set out above is proposed in relation this this effect.

Change in employee expenditure during the operational phase

14.7.68 No additional mitigation further to the embedded mitigation set out above is proposed in relation this this effect.

14.7.69 Additional health mitigation proposed during the operational phase

14.7.70 No additional human health related additional mitigation is proposed.

Residual operational effects

Change in direct, indirect and induced employment during the operational phase

14.7.71 In the absence of additional mitigation, the residual effect in relation to change in direct, indirect and induced employment during the operational phase is the same as that reported in the pre-additional mitigation scenario (a **major, direct, permanent, long-term, adverse** effect). This effect is considered to be **significant**.

Change in employee expenditure during the operational phase

14.7.72 In the absence of additional mitigation, the residual effect in relation to change in employee expenditure during the operational phase is the same as that reported in the pre- additional mitigation scenario (a **moderate, direct, permanent, long-term, adverse** effect). This effect is considered to be **significant**.

Human health effects during the operational phase

14.7.73 In the absence of additional mitigation, the residual effect on health outcomes during the operational phase is the same as that reported in the pre-additional mitigation scenario

(a **moderate indirect, permanent, long-term, adverse** effect). This effect is considered to be **significant**.

14.8 Further survey and monitoring requirements

- 14.8.1 There are no socio-economics-related further survey and monitoring requirements beyond any mitigation measures already set out within the chapter.
- 14.8.2 There are no human health-related further survey and monitoring requirements.

14.9 Opportunities for enhancement

- 14.9.1 There are no socio-economics-related opportunities for enhancement beyond any embedded mitigation measures already set out within the chapter.
- 14.9.2 No human health related opportunities for enhancement have been identified.

14.10 Cumulative effects

Construction phase

- 14.10.1 The construction of a number of Cumulative Developments²² (including IDs: 3, 37, 38, 39, 40, 41, 42, 44, 46, 47, 60, 62, and 64) may overlap with the timescales of the construction phase of the Proposed Development.
- 14.10.2 Cumulative effects with the relevant construction phase receptor (labour force) is therefore likely. As with the Proposed Development, all identified Cumulative Developments could result in changes to provision of employment opportunities and education, skills and training, and therefore there exists potential for cumulative impacts with the Proposed Development and each individual Cumulative Development and all Cumulative Developments in total.
- 14.10.3 Where available²³, evidence regarding the gross direct construction phase employment impacts²⁴ associated with each Cumulative Development has been sourced from the relevant planning application documents, and summarised below:
 - ID 37: 535 jobs
 - ID 38: 163 jobs
 - ID 39: 49 jobs
 - ID 40: 34 jobs
 - ID 42: 450 jobs
 - ID 44: 316 jobs

²² Details of Cumulative Developments are set out in **Chapter 15: Cumulative Effects**.

²³ Construction phase employment information not found for Cumulative Development IDs: 3, 41, 47, 60, 62, and 64. This was due either to this information not appearing to have been included within the planning application documentation (IDs: 3, 41 and 60), or to the fact that the necessary assessments have not yet been undertaken due to the planning stage of the project at the time of this assessment (IDs: 47, 62 and 64).

²⁴ Due to the range of methodologies deployed to estimate net additional employment impacts across the various assessments and to enable comparison with the assessment of the Proposed Development, it is considered most appropriate to present gross direct employment impacts related to each Cumulative Development. All reported Cumulative Development construction employment impacts assumed FTE for the purposes of the assessment.

- ID 46: 145 jobs
- 14.10.4 Reported gross direct employment associated with the Cumulative Developments therefore sums to c. 1,690 jobs, the most notable individual contributor projects being IDs: 37, 42 and 44.
- 14.10.5 Additional employment opportunities generated across the Cumulative Developments could therefore reduce adverse effects on the labour force related to the isolated reduction in employment generated by the Proposed Development during the construction phase.
- 14.10.6 By way of illustration, the assessment found that the Proposed Development could result in a net reduction of 1,880 FTE jobs in the SRIA, and therefore the scale of employment across the identified Cumulative Developments (c. 1,690 gross direct jobs) could quantitatively contribute towards reducing overall employment impacts associated with the Proposed Development in this impact area. To a lesser and proportionate extent, the above is also the case for each individual identified Cumulative Development in combination with the Proposed Development²⁵, with effects being particularly notable with regard to the aforementioned IDs: 37, 42 and 44.
- 14.10.7 An increase in education, skills and training provision across the Cumulative Developments would also result in enhanced beneficial effects for the labour in comparison to those generated by the Proposed Development in isolation.
- 14.10.8 It should, however, be noted that employment at each identified Cumulative Development is contingent on the construction stage of the project and therefore may not overlap in full with the construction phase of the Proposed Development.

Operational phase

- 14.10.9 The operations of a number of Cumulative Developments (including IDs: 3, 37, 38, 39, 40, 41, 42, 44, 46, 47, 60, 62, and 64) may overlap with the operational phase of the Proposed Development.
- 14.10.10 Cumulative effects with the relevant operational phase receptors (labour force and businesses) is therefore likely. As with the Proposed Development, all identified Cumulative Developments could result in changes to provision of employment opportunities and employee expenditure and therefore there exists potential for cumulative impacts with the Proposed Development and each individual Cumulative Development and all Cumulative Developments in total.
- 14.10.11 Where available²⁶, evidence regarding the gross direct operational phase employment impacts²⁷ associated with each Cumulative Development has been sourced from the relevant planning application documents, and summarised below:

²⁵ Whilst noting caveats outlined below with regard to stage of construction at Cumulative Developments.

²⁶ Operational phase employment information not found for Cumulative Development IDs: 47, 60, 62, and 64. This was due either to this information not appearing to have been included within the planning application documentation (ID: 60), or to the fact that the necessary assessments have not yet been undertaken due to the planning stage of the project at the time of this assessment (IDs: 47, 62 and 64).

²⁷ Due to the range of methodologies deployed to estimate net additional employment impacts across the various assessments and to enable comparison with the assessment of the Proposed Development, it is considered most appropriate to present gross direct employment impacts (and, where relevant for IDs: 3 and 40, net on-site uplifts in gross direct employment) related to each Cumulative Development. All reported Cumulative Development operational employment impacts assumed FTE for the purposes of the assessment.

- ID 3: 150 jobs
- ID 37: 707 jobs
- ID 38: 298 jobs
- ID 39: 4 jobs
- ID 40: 30 jobs
- ID 41: 143 jobs
- ID 42: 85 jobs
- ID 44: 116 jobs
- ID 46: 18 jobs

14.10.12 Reported gross direct employment associated with the Cumulative Developments therefore sums to c. 1,550 jobs, the most notable individual contributor projects being IDs: 37 and 38.

14.10.13 Additional employment opportunities generated across the Cumulative Developments could therefore reduce adverse effects on the labour force and employee expenditure related to the isolated reduction in employment and expenditure generated by the Proposed Development during the operational phase.

14.10.14 By way of illustration, the assessment found that the Proposed Development could result in a net reduction of 2,130 FTE jobs in the SRIA, and therefore the scale of employment across the identified Cumulative Developments (c. 1,550 gross direct jobs) could quantitatively contribute towards reducing overall employment and expenditure impacts associated with the Proposed Development in this impact area.

14.10.15 To a lesser and proportionate extent, the above is also the case for each individual identified Cumulative Development in-combination with the Proposed Development²⁸, with effects being particularly notable with regard to the aforementioned IDs: 37 and 38.

14.10.16 It should, however, be noted that employment at identified Cumulative Development span a wide range of industries, including leisure & tourism, rail, manufacturing, education and machinery maintenance, and therefore (whilst there may be a degree of overlap for some projects and industries) not all employment set to be created by Cumulative Developments may be directly applicable to the skills and experience associated with jobs set to be no longer supported locally following delivery of the Proposed Development.

14.11 Summary of effects

14.11.1 **Table 14.20** summarises the potential impacts and effects on receptors, additional mitigation proposed, and concludes the significance of residual effects reported in this ES chapter.

²⁸ Whilst noting caveats outlined below with regard to Cumulative Developments' employment sectors and related skills.

Socio-economics

Assessing the impacts of the Proposed Development on socio-economic conditions, the chapter concludes that the Proposed Development will predominantly generate significant adverse socio-economic effects.

The Applicant is implementing inherent/embedded/primary mitigation to minimise impacts, including retention and ongoing redeployment of a proportion of current supply chain capacity, as well as employment and skills measures associated with the Transition Fund. Notwithstanding mitigation, measured in comparison with the established baseline (i.e. historic operations), the Proposed Development will generate major adverse (significant) effects as a result of reductions in direct, indirect and induced employment during both the construction phase (that during which development will occur) and the operational phase. A moderate adverse (significant) effect will also be generated with regard to the change in workforce expenditure capacity. A minor beneficial (not significant) effect will be generated as a result of education, skills and training provision during the construction phase.

Human health

- 14.11.2 Within the local area, high levels of deprivation have been reported across a range of indicators for health and wellbeing. This highlights a high sensitivity of the local population to any changes in factors that influence health and wellbeing. Given this high sensitivity to change, job losses associated with the Proposed Development has potential to result in impacts on health inequalities in the LIA. However, in light of the scale of the Transition Fund being proposed, it is also considered that the impact of the job losses on health outcomes would be reduced. Overall, it is considered that there would be a significant and long-lasting effect on human health in the local area.

Table 14.20 Summary of residual significant effects

Environmental factor	Receptor	Impact	Potential effect	Additional mitigation proposed	Residual effect
Construction phase					
Socio-economics	Labour force	Change in direct, indirect and induced employment during the construction phase	Major adverse	No additional mitigation proposed	Major adverse (significant)
	Labour force	Change in education, skills and training provision during the construction phase	Minor beneficial	No additional mitigation proposed	Minor beneficial (not significant)

Environmental factor	Receptor	Impact	Potential effect	Additional mitigation proposed	Residual effect
Human health	Human health	Change in health outcomes during the construction phase	Moderate adverse	No additional mitigation proposed	Moderate adverse (significant)
Operational phase					
Socio-economics	Labour force	Change in direct, indirect and induced employment during the operational phase	Major adverse	No additional mitigation proposed	Major adverse (significant)
	Businesses and associated labour force	Change in employee expenditure during the operational phase	Moderate adverse	No additional mitigation proposed	Moderate adverse (significant)
Human health	Human health	Change in health outcomes during the operational phase	Moderate adverse	No additional mitigation proposed	Moderate adverse (significant)

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