

Chapter 14: Socio-economics, Recreation and Tourism

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14 Socio-economics, Recreation and Tourism

14.1 Introduction

14.1.1 This chapter considers the potential effects that Oliver Forest Wind Farm (the Proposed Development) may have on the socio-economics, recreation and tourism of the area surrounding the site. Where relevant, effects are also considered within the rest of Scotland and the United Kingdom (UK). The specific objectives of the chapter are to:

- describe the current baseline;
- describe the assessment methodology and significance criteria used in completing the assessment;
- describe the potential changes, including direct, indirect and cumulative, and make an assessment of the significance of effect in Environmental Impact Assessment (EIA) terms;
- describe the mitigation measures proposed to address the likely significant adverse effects; and
- assess the residual effects remaining following the implementation of mitigation measures.

14.1.2 Effects on socio-economics, recreation and tourism may arise as a direct result of the Proposed Development or as an indirect interaction between the Proposed Development and the area / region. The interactions could be beneficial or adverse.

14.1.3 This chapter is supported by Figures 14.1, 14.2 and 14.3 and Technical Appendix 14.1 which are referenced in the text where relevant.

14.2 Policy and Guidance

14.2.1 A summary of the policy and guidance relevant to this chapter is provided in the following sections. Chapter 4 provides an overview of the relevant planning policy position in full.

Planning Policy

14.2.2 Planning policy relevant to this assessment is briefly considered in the following sections.

Onshore Wind Policy Statement 2022

14.2.3 The Scottish Government's 'Onshore Wind Policy Statement' (2022) provides the rationale for the development of further onshore wind energy in Scotland as a cheap and reliable source of zero carbon energy. It highlights the lowering costs of the development of onshore wind, whilst encouraging the promotion of community benefits from all sources of renewable energy, as well as shared ownership opportunities. This position is summarised in paragraph 4.2.4, stating:

"We are committed to increasing access to affordable energy, maximising community benefits from, and ownership of, energy projects, and providing regional and local opportunities to participate in our net zero energy future. We are encouraging developers to offer shared ownership opportunities to communities as standard on all new renewable energy projects, including repowering and extension to existing projects."

National Planning Framework 4 2023

14.2.4 National Planning Framework 4 (NPF4) (Scottish Government, 2023) Policy 11: Energy, notes that:

"Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities."

14.2.5 Continuing, stating that proposed development design and mitigation should demonstrate:

"public access, impact on long distance walking and cycling routes and scenic routes."

Scottish Borders Local Development Plan 2016

14.2.6 Policies of the Scottish Borders Local Development (LDP) (Scottish Borders Council, 2016) that are relevant to this assessment include:

- PMD3: Land Use Allocations;
- ED3: Town Centres and Shopping Development;
- ED4: Core Activity Areas in Town Centres;

- ED7: Business, Tourism and Leisure Development in the Countryside;
- ED8: Caravan and Camping sites;
- EP6: Countryside Around Towns;
- EP7: Listed Buildings; and
- IS5: Protection of Access Routes.

Guidance

Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments 2019

- 14.2.7 The Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments (Scottish Government, 2019) guidance places a focus on achieving a lasting legacy for local communities underpinned by well-developed community action plans. The guidance notes that over the 12 months prior to publication in May 2019, 214 projects were offered community benefits packages totalling £15 million. The guidance is supportive of renewable energy businesses that seek to offer communities a flexible package of benefits that might not necessarily be based on Scottish Government's recommended national rate of £5,000 per installed megawatt (MW) per year; such flexible packages of benefit should offer an element of additionality and go beyond the requirements of the planning process, and also recognise the ambition to offer the lowest cost energy for consumers.
- 14.2.8 The package of benefits that a renewable energy business offers may vary in line with the priorities of community / communities involved, and the size and scope of the renewable energy project. However, community benefits should relate to the specific needs and aspirations of local people. The guidance advises that possession of a community action plan is key to delivering a community's aspirations and ambitions, and guidance is provided as to how this should be developed with a view to establishing a lasting legacy.

Good Practice Guidance on Wind Farm Construction 2019

- 14.2.9 Good Practice Guidance on Wind Farm Construction (NatureScot et al., 2019) contains advice on management measures to provide for continuing public access to core paths and rights of way. The guidance advises that management measures should be flexible enough to take reasonable account of public access requirements. The guidance emphasises the importance of effective communication.

Onshore Wind Sector Deal for Scotland 2023

- 14.2.10 Following engagement between the Scottish Government and renewable energy developers, the Onshore Wind Sector Deal for Scotland (Scottish Government, 2023) was published with plans to reduce permitting timelines and increase the onshore wind capacity in Scotland to 20 Gigawatts (GW) by 2030.
- 14.2.11 The deal aims to further collaboration between the public and private sectors through upskilling / reskilling workers and actions to retain local supply chains.
- 14.2.12 The Sector Deal also builds upon the Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments guidance, with an agreement to engage with communities at the earliest possible opportunity to agree community benefits packages which 'meet or exceed' the principles previously set out in 2019.

The Onshore Wind Energy Prospectus 2021

- 14.2.13 The Onshore Wind Energy Prospectus (RenewableUK, 2021) sets out the potential mutual benefit that onshore wind developers and the UK public can receive, through maximising the outcomes from onshore wind energy. The prospectus sets an industry target of 30GW of installed onshore wind capacity by 2030. It notes that Scotland is the location for most of the onshore wind that would be built in the 30GW by 2030 scenario (around 80 %). As a result, Scotland is expected to see an additional £27.8 billion in Gross Value Added (GVA) and the creation of 17,000 jobs.

Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms 2021

- 14.2.14 A study by BiGGAR Economics (2021) examined whether there is a link between the development of wind farms and changes in patterns of tourism spend and behaviour, finding that trends at a local authority level showed that "*there is no new evidence to contradict the earlier findings that wind farms have little or no adverse impact on tourism in Scotland*".

Quantifying Benefits of Onshore Wind to the UK 2019

- 14.2.15 A report by Vivid Economics (2019) projected the potential benefit to the UK economy as a result of 35 GW of onshore wind being developed by 2035, at a rate of 1.4 GW annually since the report was published. They estimated that this could:

- reduce UK electricity costs by 7 %;
- save households an average of £50 per year in bills;
- support 14,000 jobs directly;
- support a further 17,000 jobs indirectly;
- enable £360 m in annual exports; and
- increase productivity throughout the UK.

14.3 Consultation

14.3.1 As described in Chapter 6, consultation with stakeholders was carried out as part of the Environmental Impact Assessment (EIA) Scoping process. Consultation responses relevant to this chapter are summarised in Table 14.1.

Table 14.1 – Consultation

Consultee and Date	Consultation Response	Applicant Response
Scottish Borders Council 16 February 2023	<p><u>Core Paths, Public Rights of Way and Promoted Paths</u> According to the records held by Scottish Borders Council, no rights of way, core paths or promoted paths pass through this site. However, Scotways or the Community Council may have information on rights of way and other paths in this area.</p> <p>Mapping of the wider path network across the Scottish Borders can be found at: www.scotborders.gov.uk/mapadvanced</p> <p><u>Path Planning Study</u> As the site lies very close to Tweedsmuir village it is likely that there will be informal routes through this area which local people are using to access the land for recreational purposes.</p> <p>A Path Planning Study should be commissioned within the title deed extent of the landowner affected. A detailed plan of public access (pedestrian, cycle, horse, all ability routes), across the site (existing, during construction and upon completion) should be provided by the developer for the consideration of the Planning Authority.</p>	<p>Noted.</p> <p>Further consultation with Scotways identified that there are currently no formal rights of way or core paths within the site.</p> <p>The community has been consulted and local routes including opportunities for an additional route through the site has been explored.</p> <p>A Path Planning Study, in drawing format, has been included as Figure 14.1.1 with information on the new recreational heritage trail included in Chapter 3.</p>
Scottish Borders Council 16 February 2023	<p>Information on the positive and negative economic effects of the development (in addition to environmental/carbon offset benefits and impacts) are welcomed in order to achieve a rounded understanding of the positive and negative aspects of the development. The use of established studies on socio-economic and tourism impacts (as referred to in para 11.3.9) are noted and welcomed. This Authority would, particularly, wish to be assured that the specific impacts of this development would not have unacceptable effects on established local rural (particularly tourist) businesses and tourism generally. We welcome the intention to include an assessment on tourism and the local economy in the EIA.</p> <p>Local recreation should not be scoped out of this section of the EIA as the landscape and footpath routes within this part of the Special Landscape Area are an intrinsic part of the attraction of the area. There is no justification to exclude recreational activities and facilities not “promoted regionally/nationally”.</p>	<p>A carbon balance calculation has been undertaken for the site (Technical Appendix 16.1), comparing the carbon costs of the Proposed Development with the carbon savings attributable to the wind farm. This is covered in Chapter 17.</p> <p>This chapter provides an assessment of the potential effects of the Proposed Development on the local economy, including tourism businesses.</p> <p>Local recreation is included in this chapter as part of the assessment on recreation.</p>
Mountaineering Scotland 06 January 2023	Mountaineering Scotland has no comment to make on the Scoping Report for the Proposed Development.	Noted.
River Tweed Commission 21 December 2022	The combined effect of all existing and proposed construction developments in the area should be addressed in the ES in addition to angling, as a recreation interest, and the impact that the Proposed Development may have on it.	The effects of the Proposed Development on angling, as a recreational interest, have been assessed in this chapter. Cumulative effects have also been considered.

Consultee and Date	Consultation Response	Applicant Response
Tweedsmuir Community Council 22 February 2023	A priority highlighted by residents through the Community Action Plan was the need to develop Tweedsmuir as a place to visit to experience the unique environment, heritage, and culture. Plans are under way to develop small scale sustainable tourism, contributing to the sustainability of the community. The siting of the proposed wind farm, particularly on the main access route into Tweedsmuir will impact upon our ability to attract visitors to the area.	This chapter includes an assessment of the potential effects of the Proposed Development on the local tourism economy. Effects on recreation and visitor use of the site and surrounding area have been assessed in relation to landscape and visual effects and effects on access.

14.3.2 Engagement with the local community was undertaken through public exhibition events held in March 2023 and March 2024. The information available at these events was made available online for those who could not attend in person. An online feedback form was also available. Further details on the events, the feedback received, and attendance numbers can be found in the Pre-Application Consultation (PAC) Report.

Matters Scoped Out

14.3.3 Based on past experience of onshore wind farm projects of this scale, it is not expected that there would be a large influx of workers’ families to the area during the construction phase (estimated to last for approximately 18 months) and those who would be working in the area would be there temporarily. Therefore, it is not expected that there would be a significant effect on the demand for permanent housing, health or educational services.

14.3.4 There are expected to be three permanent employees for the operation of the Proposed Development, as such, the increased demand for permanent housing, health or educational services would be negligible and therefore effects on these are scoped out of further assessment.

14.3.5 The effects during the decommissioning phase are expected to be largely the same as those during the construction phase, albeit to a lesser degree and in approximately 50 years (and therefore unlikely to be significant in EIA terms). To avoid a repetition of the construction phase assessment, the potential effects on socio-economics, recreation and tourism during the decommissioning phase have been scoped out of the assessment. The methods and mitigation employed will follow best practice and guidance at the time of decommissioning.

14.4 Assessment Methodology and Significance Criteria

14.4.1 This chapter takes an appropriate and topic-specific approach to the assessment of the Proposed Development. It provides a worst-case or conservative assessment for socio-economic effects and presents enough information for consultees and the decision makers to comment on and determine the application.

14.4.2 It considers the potential effects of the Proposed Development on the economic resource, including employment, within the local, regional and national context, as well as the potential for effects on tourist attractions and recreational facilities within and in the immediate vicinity of the Proposed Development. Where effects are predicted, an assessment is made of the significance of effect in EIA terms.

14.4.3 Where appropriate, conclusions from Chapter 7 have been utilised to inform the assessments within this chapter. In those instances, cross references have been provided.

Study Area

14.4.4 The assessment utilises a three-tiered study area which is considered appropriate for the quantitative and qualitative characteristics of the assessment. The quantitative economic and employment aspects are defined by the Wider Study Area (WSA) and the Local Study Area (LSA), whilst the qualitative tourism and recreation aspects are defined by the Local Area of Impact (LAI). The LSA and LAI are shown on Figure 14.1.

Wider Study Area (WSA)

14.4.5 The WSA encompasses the area where economic and employment effects could occur. The WSA is required for certain receptor groups because the majority of the business and labour market effects that could occur would be experienced by population and business centres located across a wider area than the boundary of the Proposed Development.

14.4.6 The WSA is divided into three spatial levels which are used for the assessment as appropriate, and are defined as:

- the local WSA (Scottish Borders Council (SBC) administrative area);
- the regional WSA (Scotland); and

- the national WSA (UK).

Local Study Area (LSA)

14.4.7 The LSA provides an intermediate study area used in the assessment of potential effects on accommodation in the local area. The LSA covers the Tweedsmuir region of the Scottish Borders which is considered to encompass the majority of the accommodation businesses that could be affected by the Proposed Development. The WSA is too large an area to give an accurate representation of the effect of the Proposed Development, and conversely, the Local Area of Influence (LAI) is remote and has a lack of accommodation businesses around the site.

Local Area of Influence (LAI)

14.4.8 The LAI incorporates the site boundary together with an area extending to 5 km from the site. Assessment of the potential for both direct and indirect effects on recreation and tourism receptors is focused on the LAI.

Information and Data Sources

14.4.9 Information used for the socio-economics baseline within the WSA, LSA and LAI was collected through a detailed desktop review of existing studies and datasets. These are summarised in Table 14.2.

14.4.10 Technical information used to support the economic modelling of employment and GVA effects has been supplied by the Applicant.

Table 14.2 – Summary of Key Sources

Title	Source	Year	Author
Annual Business Survey (ABS)	https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/methodologies/annualbusinesssurveyabs	2023	ONS
Annual Population Survey	https://www.nomisweb.co.uk/datasets/apsnew	2023	ONS
Annual Survey of Hours and Earnings - Resident Analysis	https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/placeofresidencebylocalauthorityshettable8	2023	ONS
Business Register and Employment Survey	https://www.nomisweb.co.uk/datasets/newbr es6pub	2022	ONS
Estimates of the population for the UK, England, Wales, Scotland and Northern Ireland	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland	2022	ONS
Input-output supply and use tables	https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/inputoutputsupplyandusetables	2022	ONS
Scottish Annual Business Statistics 2021	https://www.gov.scot/publications/scottish-annual-business-statistics-2021/pages/headline-results/	2023	Scottish Government
Scottish Borders Council Area Profile	https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/scottish-borders-council-profile.html#:~:text=Between%202001%20and%202021%2C%20the,Scotland's%20population%20rose%20by%208.2%25.&text=In%202021%2C%20there%20were%20more,%25%20living%20in%20Scottish%20Borders	2022	National Records of Scotland
Supply, Use and Input-Output Tables: 1998-2019	https://www.gov.scot/publications/input-output-latest/	2022	Scottish Government

Desk Study

14.4.11 The assessment uses desk-based information sources to assess the potential effects supplemented by consultation with relevant stakeholders where necessary, and professional judgement based on previous experience.

Site Visit

14.4.12 No site visit has been undertaken with regard to socio-economics, recreation and tourism, although information has been gathered where relevant from surveys undertaken in respect of other disciplines, notably Chapters 7 and 15.

Sensitivity Criteria

14.4.13 There are no published standards that define receptor sensitivity in relation to a socio-economic assessment. As a general rule, the sensitivity of each receptor or receptor group is based on its importance or scale and the ability of the receptor to absorb change or be influenced by the Proposed Development. For example, a receptor (such as a public footpath or an accommodation business) is considered less sensitive if there are alternatives with capacity within the study area. In assigning receptor sensitivity, consideration has been given to the following:

- the importance of the receptor e.g. local, regional, national, international;
- the availability of comparable alternatives;
- the ease at which the resource could be replaced;
- the capacity of the resources to accommodate identified effects over a period of time; and
- the level of usage and nature of users (e.g. sensitive groups such as people with disabilities).

14.4.14 Based upon professional judgement and experience on other wind developments, four levels of sensitivity have been used, high; medium; low and negligible. These are defined in Table 14.3.

Table 14.3 – Receptor Sensitivity

Sensitivity	Description
High	The receptor: <ul style="list-style-type: none"> – has little or no capacity to absorb change without fundamentally altering its present character; – is of high socio-economic, recreational or tourism value¹; – is of national or international importance; – is accorded priority in national policy; – has no alternatives with available capacity within its catchment area; or – is a destination in its own right (as regards tourism and visitor attractions).
Medium	The receptor: <ul style="list-style-type: none"> – has moderate capacity to absorb change without fundamentally altering its present character; – has a moderate socio-economic, recreational or tourism value; – is of regional importance; – is accorded priority in local policy; – has some alternatives with available capacity within its catchment area; – is a destination for people already visiting the area (as regards tourism and visitor attractions); or – forms a cluster of low sensitivity receptors.
Low	The receptor: <ul style="list-style-type: none"> – is tolerant of change without a detriment to its character; – is of low socio-economic, recreation or tourism value; – is of local importance; – is accorded low priority in policy; – has a choice of alternatives with available capacity within its catchment area; or – is an incidental destination for people already visiting the area (as regards tourism and visitor attractions).
Negligible	The receptor is resistant to change and is of low socio-economic, tourism or recreation value, or there is a wide choice of alternatives with available capacity within its catchment area.

14.4.15 In considering the sensitivity of a receptor it is important to remember that, in the case of a socio-economic assessment, the sensitivity is often subjective and different receptors will have differing sensitivities depending on matters such as the economic profile of the local area, perception of the type of development and attitude to the potential benefits of a development.

Magnitude of Change

14.4.16 There are no published standards that define the thresholds of the magnitude of change for socio-economic, tourism or recreation. In order to aid clear and robust identification of significant effects, specific and targeted criteria for defining the magnitude of change have been developed for this assessment based on experience of other similar developments. The following four levels of magnitude have been adopted using professional judgement; high; medium; low and negligible. These changes

¹ Which may include being of high value to a user group of high sensitivity (e.g. mobility impaired users).

can be beneficial, adverse or neutral. Criteria for each of these levels of magnitude for each receptor group are set out in Table 14.4.

Table 14.4 – Magnitude of Change Criteria

Receptor Group	High	Medium	Low	Negligible
WSA economy	A change that would be expected to dominate over baseline economic conditions and change these by >10 %	A change that would be expected to result in a moderate change to baseline economic conditions by >5 % and less than <9.99 %.	A change that would be expected to result in a perceptible difference from baseline economic conditions by >0.5 % and less than <4.99 %	A change that would not be expected to result in a measurable variation from baseline economic conditions.
WSA labour market	A change that would dominate over baseline labour market conditions and/or would affect a large proportion (>10 %) of the existing resident workforce.	A change that would be expected to result in a moderate change to baseline labour market conditions and/or would affect a moderate proportion (>5 % and less than 9.99 %) of the existing resident workforce	A change that would be expected to result in a perceptible difference from baseline labour market conditions and/or would affect a small proportion (>0.5 % and less than <4.99 %) of the existing resident workforce.	A change that would not be expected to result in a measurable variation from baseline labour market conditions.
Tourism and recreation assets	A change that would be expected to cause a major restriction of access to or availability of tourism and visitor assets in the LAI or would result in a major change to existing patterns of use.	A change that would be expected to have a moderate restriction of access to or availability of tourism and visitor assets in the LAI or would result in a moderate change to existing patterns of use.	A change that would be expected to have a small restriction of access to or availability of tourism and visitor assets in the LAI or would result in a small change to existing patterns of use.	A change that would be unlikely to result in a noticeable difference to tourism and visitor assets in the LAI.

Significance of Effect

- 14.4.17 The significance of effects on socio-economic, tourism and recreation receptors is initially assessed by combining the magnitude of the change and the sensitivity of the receptor as shown in the matrix presented in Table 14.5.
- 14.4.18 Where an effect is classed as major, this is considered likely to be ‘significant’ in terms of the EIA Regulations. Where an effect is classified as moderate, this may be considered to be ‘significant’ but should always be subject to professional judgement and interpretation, particularly where the sensitivity or magnitude of change levels are not clear or are borderline between categories or the change is intermittent or temporary. Effects may be beneficial, adverse or neutral.

Table 14.5 – Significance of Effect Matrix

Sensitivity or Value of Resource or Receptor	Magnitude of Change			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

- 14.4.19 The significance matrix shown in Table 14.5 therefore provides a guide to assessment but is not a substitute for professional judgement.
- 14.4.20 Where the potential for significant effects is identified, specific mitigation measures would be proposed and an assessment of residual effects carried out. It should be noted that significant residual effects need not be unacceptable or irreversible.

Requirements for Mitigation

- 14.4.21 The assessment takes account of embedded mitigation that is incorporated into the design of the Proposed Development. If relevant, any additional mitigation measures that would reduce the level of any significant adverse effects are set out and considered prior to assessing residual effects.

Cumulative Assessment

- 14.4.22 In relation to economic effects, cumulative effects depend on the extent to which the supply chain and labour market within the WSA have the capacity to meet demand for construction services from a

number of similar developments. The cumulative effects assessment makes a quantitative judgement on potential loss of benefit due to cumulative developments. Enhancement of opportunity (e.g. developing expertise and capacity in the market) is identified only in qualitative terms.

- 14.4.23 Other cumulative effects on recreation and tourism receptors may arise if the construction and / or operation of a number of wind farms were to affect receptors in the LAI.

Limitations to Assessment

- 14.4.24 The data available at a national level can vary between Great Britain (GB) and the UK. Although it is noted that these terms are often used interchangeably colloquially, it is recognised that there is a geographical difference², therefore a difference in the data may be evident.
- 14.4.25 Where available, particularly from data sourced from the Office of National Statistics (ONS), GB has been used, however, some sources and documentation used for estimations regarding forecasting the economic and labour impacts of developments of this nature may only be available at a UK spatial level. For the avoidance of doubt, the assessments have been based upon UK data unless otherwise stated.
- 14.4.26 The datasets for the population trends have a sharp decrease for the year 2021 (the most recent data available at time of writing). The ONS (2023) notes that this is likely due to mid-year adjustments and the use of interim results. These most recent results will have been modelled after the 2020-based principal projection and would be updated in subsequent projections which incorporate the 2021 census data. Further to this is the uncertainty in the mid-2020 base year and the setting of long-term demographic assumptions following the onset of the COVID-19 pandemic.
- 14.4.27 The data presented in the baseline has been ascertained from the latest sources, where available and appropriate, however, the expenditure estimates rely upon a 2021 price base to allow for expenditure to be related to the ONS datasets used to estimate GVA and employment impacts. Effects of inflation are excluded from the assessment in line with guidance for the appraisal of major projects (HM Treasury, 2022).
- 14.4.28 In common with projects of a similar nature, no field surveys were undertaken to assess the real-time physical state and usage of the recreational and tourism receptors. Data has, however, been retrieved from other chapters of this EIA Report, where relevant.

Assumed Development Expenditure

- 14.4.29 The construction phase of the Proposed Development would result in an increase in employment, as well as economic effects resulting from expenditure on items such as site preparation including forestry services, construction and maintenance of access roads, purchase and delivery of materials, plant, equipment and components. To estimate the generation of GVA and employment resulting from the construction of the Proposed Development, it is necessary to adopt assumptions regarding the expenditure.
- 14.4.30 The Applicant has provided technical information relevant to the Proposed Development that has enabled the prediction of broad estimates of the likely development expenditure. Based on this information, it is assumed that the construction period for the Proposed Development is expected to occur over an 18-month duration.
- 14.4.31 A breakdown of this predicted expenditure disaggregated by the main category of spend is given in Table 14.6, showing that project expenditure is estimated to total just under £88 million in 2024 price terms.

Table 14.6 – Indicative Pre-development, Construction and Commissioning Cost Estimates (2024 prices)

Project Component	Cost (£ millions)
Development costs	4.5
Turbines/plant	63.0
Electrical plant	9.3
Civils, Contingency, and Misc. items	10.8
Total	87.6

- 14.4.32 Based on experience with similar projects elsewhere in Scotland, an assessment of the predicted spatial location of expenditure for each category of costs has been derived. This spatial breakdown of expenditure is based on the following areas: the local WSA (Scottish Borders); the regional WSA (Scotland); and the national WSA (UK).
- 14.4.33 The construction phase socio-economic assessment in Section 14.8 utilises predictions of the spatial location of expenditure of each category of expenditure, derived from prior experience of similar

² Great Britain comprises Scotland, England and Wales (including the outlying islands that they administer, such as the Isle of Wight). The United Kingdom comprises Great Britain and Northern Ireland.

developments. This indicative destination of expenditure is then converted into the estimated proportions of expenditure for each of the WSA spatial areas and adopted for the assessment.

14.5 Baseline Conditions

14.5.1 This section presents the baseline in the WSA, LSA and LAI.

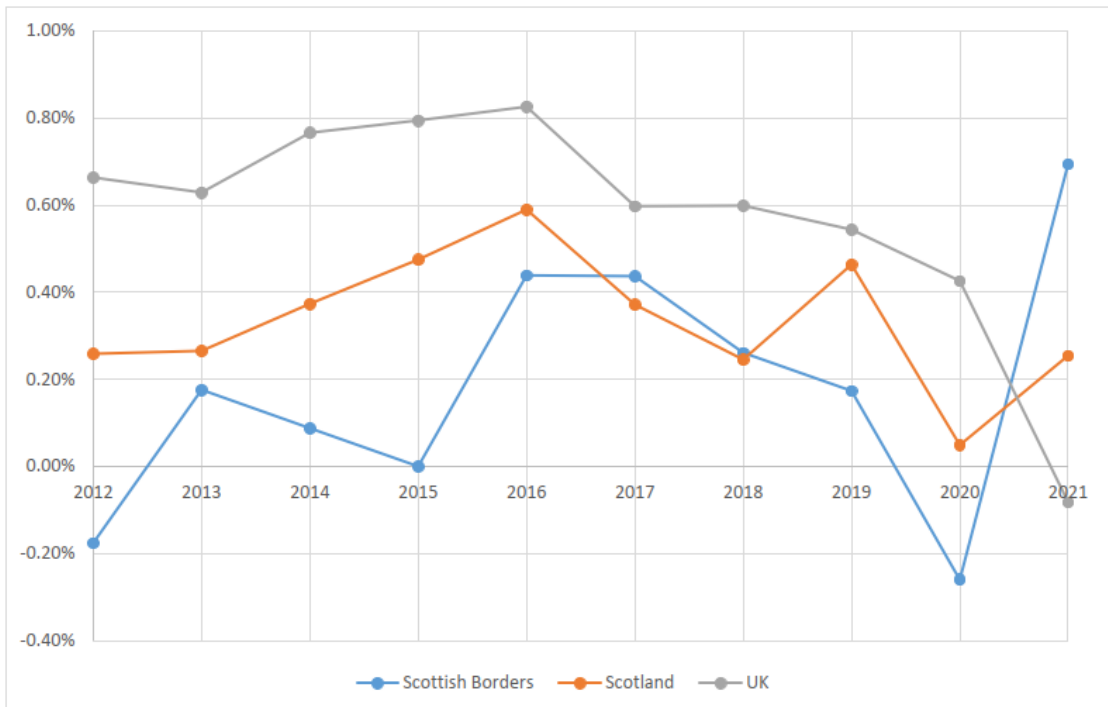
Wider Study Area

14.5.2 A baseline review of population and employment has been undertaken which focuses on the local WSA (i.e. the SBC administrative area), although data for Scotland and the UK are provided for comparison as appropriate.

Population

14.5.3 In 2021, the population of the Scottish Borders was 116,000 which represented 2.12 % of Scotland's total population, ranking 18th of Scotland's 32 local authorities (ONS, 2022). Chart 14.1 details the changes in population over a 10-year period to 2021, showing that, with the exception of decreases in 2012 and 2020, and no change in 2015, the population of the Scottish Borders has consistently grown, alongside the populations of Scotland and the UK as a whole (barring 2021 in the UK).

Chart 14.1 – Changes in Population (2011-2021)

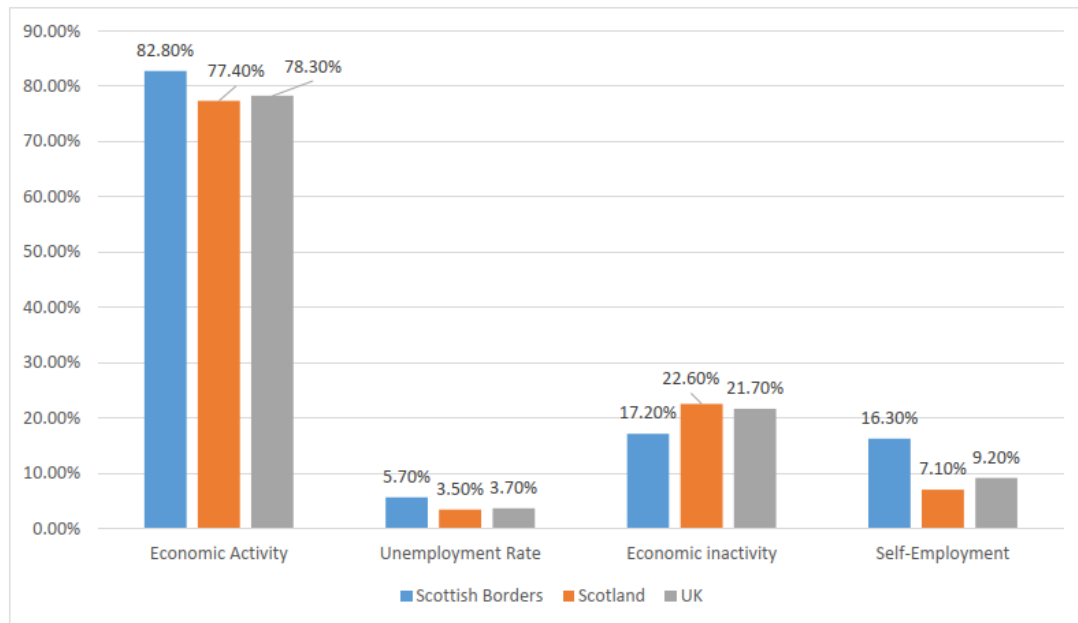


14.5.4 The Scottish Borders has an older population than average, with 58.3 % considered to be of 'working age' (16-64), compared to 63.8 % in Scotland, and 62.9 % in the UK (ONS, 2022). This is reflected in the number of residents aged 65+, which total 25.6 % of the Scottish Borders, compared to 19.6 % in Scotland and 18.7 % in the UK (ONS, 2022).

Labour Market and Supply Chain

14.5.5 There are 54,700 economically active residents in the Scottish Borders (ONS, 2023), which, proportionately, is a higher rate of activity than Scotland or the UK, as shown on Chart 14.2. This shows that despite having a proportionately lower working age population, those living in the Scottish Borders have a greater rate of economic activity.

Chart 14.2 – Labour Market



14.5.6 The higher rate of economic activity is reflected in a lower rate of economic inactivity (those of working age who are not employed nor seeking work; students, sick, retired, for example), in the Scottish Borders when compared to the rest of Scotland and the UK, whilst the Scottish Borders also has a higher rate of self-employment. Despite having a comparatively higher rate of economic activity, the unemployment rate in the Scottish Borders is also higher than the average in Scotland and the UK.

14.5.7 Useful insights into the dynamics of the labour market are often revealed by consideration of the occupational structure of those in employment as shown in Table 14.7 (ONS, 2023).

Table 14.7 – Employment by Occupation Type³

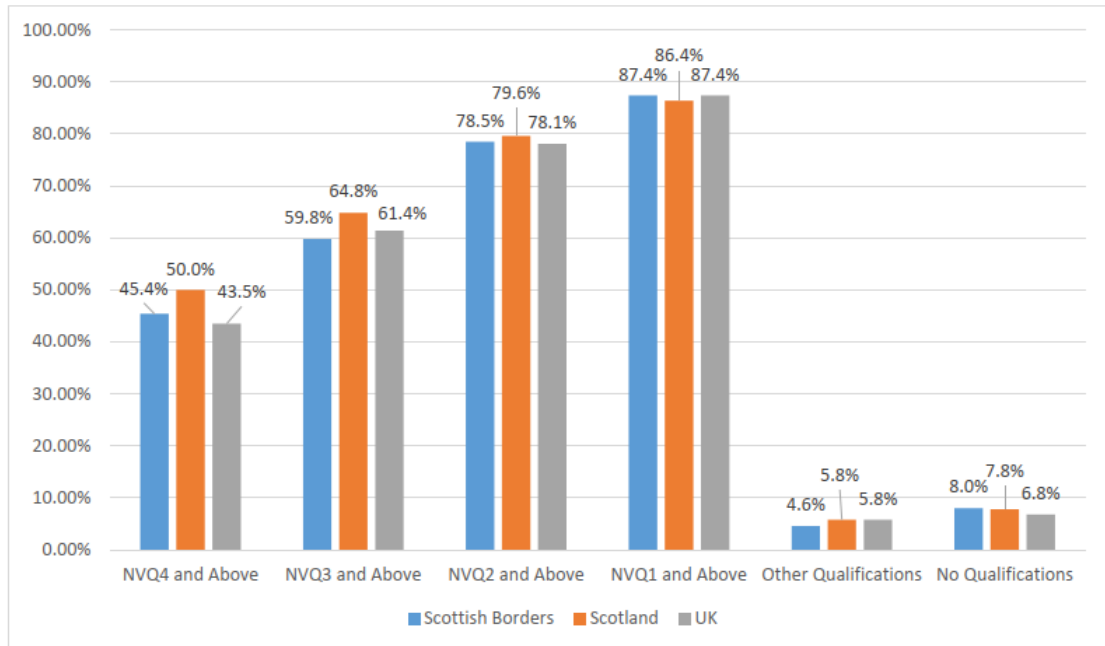
Sector	Scottish Borders	Scottish Borders (%)	Scotland (%)	UK (%)
1: Managers, Directors and Senior Officials	5,500	10.1	8.2	10.7
2: Professional Occupations	15,900	29.1	25.6	26.2
3: Associate Professional Occupations	6,100	11.2	15.1	14.1
4: Administrative and Secretarial	3,900	7.1	9.1	9.6
5: Skilled Trades	7,200	13.2	9.5	9.1
6: Caring, Leisure and Other Service	5,000	9.2	8.5	8.1
7: Sales and Customer Service	3,300	6.1	7.5	6.3
8: Process, Plant & Machine operatives	4,000	7.3	5.1	5.8
9: Elementary occupations	3,700	6.8	10.9	9.5

14.5.8 Of note in Table 14.7 is the higher proportion of ‘Skilled Trades’ workers in the Scottish Borders, 3.7 and 4.1 percentage points higher than that of Scotland and the UK respectively. The Scottish Borders also has a higher proportion of ‘Process, Plant and Machine Operatives’ when compared with Scotland and the UK (a difference of 2.2 and 1.5 percentage points respectively). Both of these occupations are likely to include skills and services that would be required for wind farm construction and operation. Conversely, there is a lower proportion of ‘Associate Professional’ and ‘Elementary’ occupations in the Scottish Borders than in its comparatives.

³ Occupation types defined by the Standard Occupational Classification 2020 (SOC 2020) as shown in Table 2: General nature of qualifications, training and experience for occupations in SOC 2020 major groups available at: <https://www.ons.gov.uk/methodology/classificationsandstandards/standardoccupationalclassificationsoc/soc2020/soc2020volume1/structureanddescriptionsofunitgroups/principles-and-concepts>

14.5.9 Regarding the qualifications attained by the population, degree-qualified (or equivalent) residents of working age account for 45.4 % of the Scottish Borders population, which is higher than the UK average, but lower than the Scottish average, as shown in Chart 14.3 (ONS, 2023).

Chart 14.3 – Qualifications



14.5.10 Regarding qualifications of NVQ1 and above, the Scottish Borders are on par with the average in the UK and slightly above the average in Scotland. There are slightly fewer people with other qualifications than in its comparatives, and conversely, slightly more people with no qualifications than Scotland and the UK.

14.5.11 According to the ONS Annual Survey of Hours and Earnings (ASHE) (ONS, 2023a), the average weekly gross earnings for residents of the Scottish Borders were £571.40, which is £69.10 lower than the Scottish average of £640.50, and £68.60 less than the UK average of £640.00.

14.5.12 Data on an area’s business population can be obtained from the ONS UK Business Counts data series (which is sourced from the Interdepartmental Business Register) (ONS, 2022a). This data source can be used to identify the structure of the local business base by sector; this is potentially useful in assessing the capacity of the local area to host supply chain activity for infrastructure and other large-scale construction projects such as the Proposed Development. Table 14.8 provides data on the structure of the local business base, both in absolute and relative terms.

Table 14.8 – Employee Jobs by Industry

Industry	Scottish Borders (no.)	Scottish Borders (%)	Scotland (%)	Great Britain (%)
A: Agriculture, forestry and fishing	3,000	7.1	1.8	0.7
B: Mining and quarrying	15	0.0	1.0	0.1
C: Manufacturing	4,500	10.7	7.0	7.6
D: Electricity, gas, steam and air	125	0.3	0.7	0.4
E: Water supply; sewerage, waste management and remediation activities	350	0.8	0.8	0.7
F: Construction	3,000	7.1	6.0	4.9
G: Wholesale and retail trade; repair of motor vehicles and motorcycles	7,000	16.7	14.2	14.4
H: Transportation and storage	900	2.1	4.1	5.0

Industry	Scottish Borders (no.)	Scottish Borders (%)	Scotland (%)	Great Britain (%)
I: Accommodation and food service activities	2,500	6.0	7.5	7.5
J: Information and communication	700	1.7	3.1	4.4
K: Financial and insurance activities	250	0.6	3.1	3.6
L: Real estate activities	700	1.7	1.5	1.8
M: Professional, scientific and technical activities	2,250	5.4	6.4	8.9
N: Administrative and support service activities	1,500	3.6	7.9	8.9
O: Public administration and defence; compulsory social security	2,000	4.8	6.5	4.6
P: Education	3,500	8.3	8.6	8.7
Q: Human health and social work activities	8,000	19.0	15.7	13.6
R: Arts, entertainment and recreation	1,250	3.0	2.4	2.3
S: Other service activities	700	1.7	1.7	1.9

14.5.13 The data in Table 14.8 shows that the 'Agriculture, forestry and fishing' sector has a significantly higher proportion of employees compared against the equivalent averages in Scotland and Great Britain, proportionately approximately four times and 10 times more, respectively. The 'Manufacturing' and 'Construction' sectors are also above the national average, indicating potential capacity and skills in the local WSA for manufacturing and construction services.

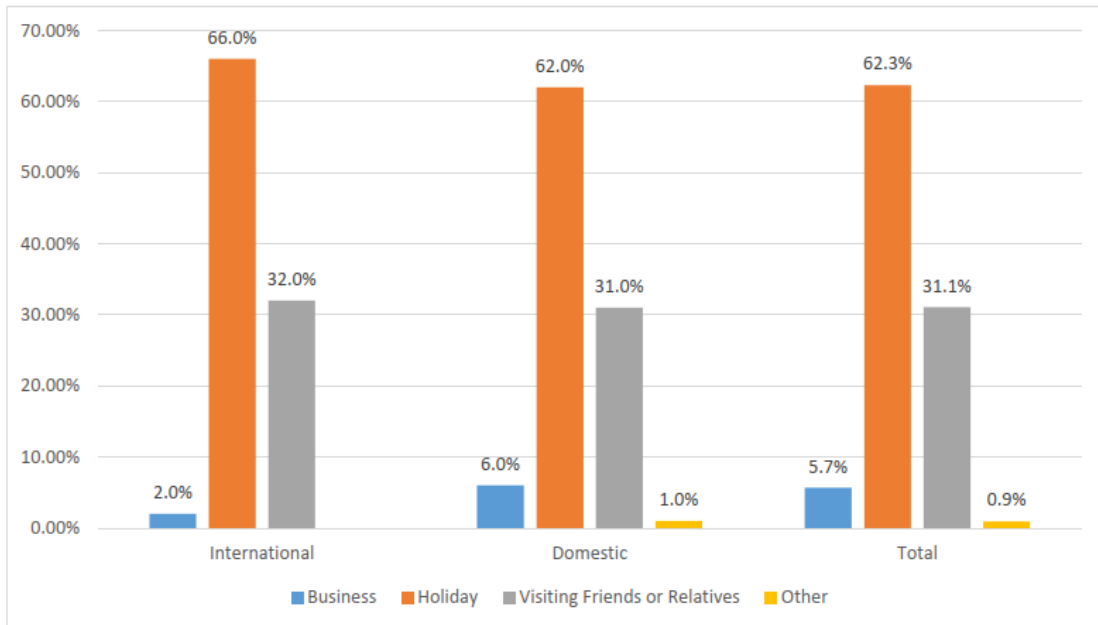
14.5.14 It should be noted that, due to data limitations, the values for Great Britain have been used instead of the UK, and that persons in self-employment are not included in the data set out in Table 14.8.

Tourism Economy

14.5.15 The VisitScotland Insight Department's 'Scottish Borders Factsheet 2019' (2021) shows that the average annual value for visitor spend across 2017-2019 in the Scottish Borders was £144 million, which represented a 16 % increase from the average spend across 2016-2018 and supported approximately 4,100 jobs in the sector. One method for reducing error margins when using data from surveys is to take an average over three years to provide a larger sample size. In this report, 3-year average figures were used to provide a more robust basis for analysis of detailed data.

14.5.16 The average annual number of tourists visiting the Scottish Borders on overnight trips across 2017-2019 was 369,000, with the majority of visitors travelling for holidays. The data for total visitor purposes is given in Chart 14.4, which also shows the breakdown for international and domestic visitors.

Chart 14.4 – Purpose of Visiting the Scottish Borders



14.5.17 With regards to overnight visits to the Scottish Borders, 92 % were from Scotland and the Rest of Great Britain (39 % and 53 % respectively), with visitors from Europe, North America and the Rest of the World accounting for 6 %, 1 % and 1 % respectively, as reported in VisitScotland’s (2021) Scottish Borders Factsheet for 2019.

14.5.18 The VisitScotland’s (2021) Scottish Borders Factsheet for 2019 also includes results from the Great Britain Day Visits Survey, showing the most popular leisure attractions in the Scottish Borders region (i.e. the local WSA), where the most popular activity was a long walk, hike or ramble, closely followed by going for a meal in a restaurant or café etc.

Local Study Area

14.5.19 A baseline review of accommodation businesses in the LSA has been carried out.

Accommodation

14.5.20 There are several accommodation businesses, including self-catering accommodation and bed and breakfasts, located throughout the Tweedsmuir region within the LSA, as illustrated on Figure 14.2.

14.5.21 The Proposed Development is located under 90 minutes driving distance from both of Scotland’s largest cities, Glasgow and Edinburgh. This greatly expands the catchment area for suitable locations for accommodating the potential workforce, as well as tourists visiting local attractions.

Local Area of Influence

14.5.22 A baseline review of tourism and recreation receptors located within the LAI has been carried out.

Recreation

14.5.23 ‘Formal recreation’ facilities are considered to be those with paid or controlled entry, such as a museum. There are no formal recreation facilities within the LAI. Other forms of recreation such as core paths, cycling routes or beaches, are considered to be ‘informal’ and utilised freely without payment. There are limited recreational assets within the LAI, as shown on Figure 14.3.

Long Distance Routes

14.5.24 There are no long distance routes within the LAI.

14.5.25 The River Tweed is located to the south of the site and it is noted that greater access is being sought from SBC and the community to improve access to and around the River Tweed as part of the wider ‘Destination Tweed’ project, with the aim of creating a new long-distance route. This route aims to provide a 113 mile trail from Moffat to Berwick-upon-Tweed. It is understood that land to the east of Oliver Forest and the site may be included in part of the trail.

Core Paths

- 14.5.26 The Scottish Borders Core Paths Plan (Tweedsmuir – Area 37) (2010) available on the SBC website, shows that there are no Core Paths within the site boundary. There are two Core Paths on the fringe of the LAI. To the north of the site is a Core Path running from Chapelgill Hill to Gathersnow Hill which connects with a wider network of paths within the South Lanarkshire Authority area. To the south of the site is a Core Path leading from the Fruid Road, southwards along the northern shores of the Fruid Reservoir and then south-westwards to join with the Annadale Way (at the Devil's Beef tub) approximately 10 km south of the site.

Rights of Way

- 14.5.27 There are two Rights of Way (RoW) within the LAI to the east of the site, one running from Hearthstane to Broad Law south-east of the site, and one running north-south approximately along the route of the River Tweed.

Heritage Paths

- 14.5.28 There are currently no heritage paths within the LAI.

Other Paths

- 14.5.29 The 1:25,000 Ordnance Survey (OS) map shows a path running through the central part of the site connecting Tweedsmuir with the bothy at Hopehead. It has been confirmed through site visits and discussions with the landowner, however, that this path does not exist on the ground and no accessible route is possible through the dense trees planted in this area.
- 14.5.30 There are several forestry access tracks within the site boundary and LAI which could be utilised by the public for recreation under the right to roam.
- 14.5.31 The SBC Core Paths Plan (2010) shows two permissive/ customary paths (routes with a known history of public use) in the north of the LAI which provides access along the wind farm tracks of the Glenkerie Wind Farm.

Cycling

- 14.5.32 There are no national or local cycling routes within the LAI. However, as noted in Chapter 12, the A701 is utilised as part of the closed-road event 'Tour o' the Borders' which returns in September 2025, and as part of the Innerleithen Cycling Tours routes.

Horse Riding

- 14.5.33 There are no horse riding facilities within the LAI and horse riders are not known to use the site or neighbouring routes, although it is acknowledged that horse riders may utilise the area under the statutory right to roam.

Fishing and Angling

- 14.5.34 As noted in Chapter 8, the majority of the watercourses within the site lie on moderately steep to steep gradients and many are peaty headwaters with negligible-low suitability for fish. The upper stretches of the River Tweed are located to the south of the site within the LAI. It is noted on the Tweed Commission website (2024) that: "*The River Tweed has a growing reputation as an excellent fishery for wild brown trout and grayling and is particularly well known for its large fish.*"
- 14.5.35 Permits to fish are required from the Peebleshire Trout Angling Association for the stretches of the Upper Tweed located within the LAI. The permit allows fishing on 23 miles of the River Tweed and five miles of the Lyne Water (a tributary of the Tweed that flows in north of Peebles). The Brown Trout fishing season runs from 01 April to 30 September. The Grayling fishing season runs from 01 January to 30 September, although not all of the Association's 28 miles of fishing are open to Grayling fishing in January, February and March.

Outdoor Access

- 14.5.36 Despite there being minimal designated or recorded paths and other recreational facilities in the LAI, this does not preclude the public from using land or inland waterways within the LAI for recreational purposes in accordance with the Land Reform (Scotland) Act 2003, including for walking, cycling, horse riding or canoeing. From Strava heatmap data (Strava, 2023), it is evident that the site itself is used for recreational purposes, including cycling, walking and running.

Tourism Attractions

- 14.5.37 Certain recreational activities are of sufficient prominence to draw visitors to the area and are therefore considered to be tourist attractions. However, the LAI does not feature any nationally important tourism 'destinations' that draw tourists to the area.

- 14.5.38 There are several locally important tourist assets located within the LAI, including the Giant's Stone, the Porteous Cairn and Talla Reservoir, the locations of which are set out on Figure 14.3.

14.6 Embedded Mitigation

- 14.6.1 At this stage in the development process, it is not possible to quantify economic benefits in respect of individual supply chain companies, as contracts would not be let until consent is granted. However, it is evident from recent wind farm construction experience in Scotland (including a BVGA report on economic benefits) (BVG Associates, 2017) that suppliers of a wide range of goods and services within the local WSA and Scotland as a whole have the potential to benefit from the Proposed Development. The 2023 annual Supply Chain Impact Statement by Scottish Renewables has revealed that 89 % of Scotland's renewable energy supply chain believe renewable energy is the biggest economic opportunity facing Scotland, 83 % having recruited new employees as a result of opportunities in the renewable energy industry.
- 14.6.2 Procurement of goods and services can certainly have an important effect on local economies. The potential level of expenditure set out in Table 14.5 provides an opportunity for the supply chain within the local and regional WSAs to benefit from the Proposed Development over the 18-month construction period.
- 14.6.3 The types of supply chain companies that could benefit from this expenditure is wide ranging, and is likely to include the following:
- traffic management;
 - materials supply;
 - plant hire;
 - vehicle servicing;
 - vehicle fuel supply;
 - forestry services;
 - vegetation management;
 - fencing;
 - site security;
 - waste management;
 - drainage;
 - planting and seeding;
 - visiting workforce accommodation; and
 - food and drink services for the visiting workforce.
- 14.6.4 The Applicant acknowledges the importance of employing good practice measures in maximising local procurement, taking into consideration resources such as the Renewables UK Good Practice Guidance 2014: 'Local Supply Chain Opportunities in Onshore Wind' (RenewableUK, 2014). The Applicant also recognises the value of building upon recent UK best practices in innovative local procurement, which may include implementing a Local Contractor Policy. In this regard, primary contractors that demonstrate a clear commitment to increasing local content in their supply chains may receive additional consideration in the tendering process.
- 14.6.5 The Proposed Development includes the creation of a recreational heritage trail with car parking facilities and information boards (Figure 3.13) which would provide enhancement of access through the site whilst promoting recreation, heritage and ecological interest in the area.
- 14.6.6 The Applicant encourages local businesses and potential suppliers to register with them to ensure they are informed of the procurement process. The Applicant will also hold 'meet the buyer' days ahead of construction if the application is consented.

14.7 Receptors Brought Forward for Assessment

A review of sensitive receptors within the study areas has identified that the key receptors requiring assessment for the potential for significant effects relating to the Proposed Development are:

- for the WSA – employment and economic figures;

- in the LSA – local tourism economy with a focus on accommodation; and
- in the LAI – recreation assets.

14.7.1 The potential for effects is considered for the construction and operational phases of the Proposed Development.

14.8 Potential Effects

Construction Effects

14.8.1 Construction effects are addressed in turn with regard to the WSA, the LSA and the LAI.

Wider Study Area – Socio-economics

14.8.2 The potential for socio-economic construction phase effects is assessed for each of the WSA levels: the local WSA (SBC administrative area), the regional WSA (Scotland) and the national WSA (UK).

Gross Effect During Construction

14.8.3 Estimates of the expected direct construction phase employment implications of the Proposed Development have been derived using the information on projected expenditure set out in Table 14.6, as well as assumptions obtained from the following sources:

- employment and GVA multipliers for Scotland, obtained from Input-Output tables for Scotland (1998-2020) published by the Scottish Government;
- employment and GVA multipliers for the UK obtained from Input-Output tables published by the UK Government; and
- ratios of turnover per unit of GVA and GVA per employee have been derived from Scottish and UK Government data.

14.8.4 Using the sources summarised above, Table 14.9 sets out estimates of direct gross employment and GVA effects that have been derived for three spatial areas: local WSA (Scottish Borders); regional WSA (Scotland); and national WSA (UK). These estimates are set out for both the construction period as a whole (i.e., 18 months) and on an average per annum basis during construction. The GVA estimates are expressed in 2024 prices.

Table 14.9 – Estimates of Gross Construction Phase GVA and Employment Effects

Spatial area	GVA (£million)	GVA per annum (£ million)	Employment (person years)	Employment p.a. (person years)
Local WSA (SBC administrative area)	2.9	2.0	43	28.5
Regional WSA (Scotland)	9.1	6.1	127	85.0
National WSA (UK)	20.3	13.5	284	189.3

14.8.5 Assuming the Proposed Development proceeds as intended by the Applicant, GVA with a gross total of £2.9 million is predicted to be generated in the local WSA economy during the construction, and commissioning phase. This is equivalent to £2.0 million per annum over the construction period.

14.8.6 The equivalent predicted GVA total for the regional WSA is £9.1 million (averaging £6.1 million p.a.) and for the national WSA it is £20.3 million (averaging £13.5 million p.a.). The sensitivity of the regional WSA economy is considered to be medium. The magnitude of change could be considered to be major, but due to the temporary nature of the change it is assessed as low, resulting in a **minor** (beneficial) effect which is not significant in EIA terms.

14.8.7 Turning to employment, a total of 43 person-years of employment are estimated to be generated in the local WSA economy during the 18-month construction period. This amounts to an average of 28.5 person-years per annum during the construction period.

14.8.8 The equivalent predicted employment total for the regional WSA (Scotland) is 127 person-years (averaging 85.0 p.a.), and for the national WSA (UK) it is 284 person-years (averaging 189.3 p.a.). The sensitivity of the regional WSA labour market is considered to be medium. The magnitude of change could be considered to be major, but due to the temporary nature of the change, it is assessed as low, resulting in a **minor** (beneficial) effect which is not significant in EIA terms.

Net Effect During Construction

14.8.9 So far, the focus has been on the gross impact of construction activity at three spatial levels. The next step is to consider and quantify the potential net additional impact by taking into account a number of additional concepts:

- **Leakage:** is the proportion of Proposed Development outcomes (e.g. jobs, GVA) that benefit individuals or organisations located beyond the relevant area of impact (e.g. the WSA local area). Leakage is generally higher at a local level, although it also varies by the nature of development type.
- **Displacement:** is an estimate of the economic activity hosted by the site that would be diverted from other businesses in the spatial impact area. This again varies by the nature of development type.
- **Multipliers:** an estimate for further economic activity associated with additional income and/or Proposed Development procurement activity stimulated by Proposed Development activity within the spatial impact area under consideration.

14.8.10 The specific values assumed for multipliers for Scotland and the UK are sourced for national input-output tables and vary by the Proposed Development expenditure category. Assumptions about leakage are based on local labour market indicators and experience of other wind farm projects located in Scotland.

14.8.11 Table 14.10 summarises the derived estimates for net construction effects on GVA and employment after allowing for additionality factors. As with the gross effects, the net effects are presented in both overall terms and on an average per annum basis.

Table 14.10 – Estimates of Net Construction Phase GVA and Employment Effects

Spatial area	GVA (£million)	GVA per annum (£million)	Employment (person years)	Employment p.a. (person years)
Local WSA (Scottish Borders)	2.7	1.8	40	27
Regional WSA (Scotland)	11.1	7.4	155	103
National WSA (UK)	22.7	15.1	317	212

14.8.12 With respect to employment, a total of 40 person-years of net additional temporary employment is predicted to be generated in the local WSA economy during the construction phase of the Proposed Development (averaging 27 p.a.). The equivalent total for the regional WSA (Scotland) is 155 person-years (averaging 103 p.a.), and for the national WSA (UK) it is 317 person-years (averaging 212 p.a.).

14.8.13 In 2022 there was an estimated 53,000 jobs located within the Scottish Borders local authority area (ONS, 2022c). The temporary addition of 27 jobs (per annum) to this total would increase the number by 0.05 %. The sensitivity of the regional WSA labour market is considered to be medium. The magnitude of change is negligible. The effect on the local employment base is considered to be **negligible** (beneficial) and therefore not significant in EIA terms.

14.8.14 In terms of output, a net additional total of £1.8 million of GVA per annum is predicted to be generated by the Proposed Development in the local WSA economy during the construction and commissioning phase. The equivalent predicted total for the regional WSA (Scotland) is £7.4 million and for the national WSA (UK) it is £15.1 million.

14.8.15 As of 2021, the estimated annual value of output in the Scottish Borders area was approximately £2.56 billion (ONS, 2021). When adjusted to 2024 prices, this value is around £2.93 billion. The temporary augmentation of the local economy by £1.8 million would increase the size of the local economy by around 0.06 %. The sensitivity of the regional WSA economy is considered to be medium. The magnitude of change is negligible. The effect on the value of the local economy is considered to be **negligible** (beneficial) and therefore not significant.

Local Study Area

Effect on the Local Tourism Economy During Construction

14.8.16 The construction period for the Proposed Development would be expected to last approximately 18 months and would be expected to benefit the local economy through expenditure on purchases of accommodation, food, drink, fuel, etc. that are needed to sustain the construction workforce. These beneficial effects would be experienced mainly by businesses within the tourism sector, or those that are partly dependent on tourism for their income e.g. the retail sector. These likely effects are included within the quantification of the net employment effects that are reported in Table 14.10.

14.8.17 Anecdotal evidence arising from other wind farm construction projects shows that local businesses such as accommodation providers generally welcome the enhanced level of occupancy that is achieved due to construction contractors using their accommodation during periods of the year that are traditionally considered 'low season'. The sensitivity of these receptors is considered to be medium, and the magnitude of change low due to the intermittent and temporary nature of the change. The effect is **negligible** (beneficial) and therefore not significant.

- 14.8.18 However, in rural areas peak season occupancy rates are generally high, and consequently the use of holiday accommodation by construction workers during the peak season could potentially lead to displacement of tourism visitors.
- 14.8.19 For accommodation businesses it is unlikely that displacement of tourism visitors would result in an adverse effect to the individual business, as occupancy rates would be maintained at a high level. Indeed, the overall impact of the 18-month construction period is likely to result in increased occupancy during the period of construction activity, because of the need to accommodate workers during the off-season (e.g., the October-March period) when recreational tourism visits are usually much lower compared to the summer months.
- 14.8.20 It is acknowledged that the displacement of tourism visitors from the LSA could result in a temporary reduction in expenditure by visitors at non-accommodation businesses such as visitor attractions and recreational businesses. This potential temporary effect on the non-accommodation tourism economy is likely to be at least partially offset by construction workers spending on goods and services, such as food and drink, but the net effect on the non-accommodation portion of the tourism economy has the potential to be adverse.
- 14.8.21 However, the site is located within an approximate 90-minute driving distance of Scotland's two largest cities, Glasgow and Edinburgh. This increases the potential supply of accommodation options for both construction workers and tourists, resulting in a sensitivity of medium.
- 14.8.22 The magnitude of the change accounts for the potential abundance of commutable accommodation locations for the construction workers, as well as the relative commutable distance of the local area from nearby cities. This results in a low magnitude of change and a resultant **minor** adverse temporary effect which is not significant.

Local Area of Influence – Tourism and Recreation

Tourism Effects During Construction

- 14.8.23 Local businesses, such as food and drink businesses and, to a lesser extent due to the location, accommodation businesses, may experience beneficial effects during construction due to use by construction workers. The magnitude of change may be high for individual businesses, and as the sensitivity of these receptors is low the effect would be **moderate** (beneficial). However, given the temporary nature of the potential effect it is considered that the effect would not be significant.
- 14.8.24 The identified tourism assets are separated from the Proposed Development by topography and distance, resulting in low sensitivity. Should construction traffic temporarily restrict access to an asset, or views of the construction site enroute to an asset degrade the experience, the magnitude of change would be low due to the temporary and intermittent nature of the change resulting in a **negligible** (adverse) effect which is not significant .

Recreational Effect During Construction

- 14.8.25 The site and surrounding areas are utilised by walkers, runners and cyclists. Access under the right to roam on site would be temporarily affected by the construction period. None of the Core Path routes or Rights of Way identified in the LAI would be affected by construction traffic. Their sensitivity is low. The amenity of recreational users within the site would be reduced temporarily, however, the recreational quality of the routes would be impacted to a lesser degree, resulting in an overall low magnitude of change. This would result in a **negligible** (adverse) effect which is not significant.
- 14.8.26 Anglers on the River Tweed would not be adversely affected during the construction of the Proposed Development. During construction it is expected that the Proposed Development would not have any impact on the behaviour of anglers within the LAI. Good practice pollution prevention measures (as outlined in Chapters 10, 18 and the outline CEMP, Technical Appendix 3.1) would be in place to ensure that water quality and in turn the fish in the River Tweed downstream of the Proposed Development are not adversely affected. The effect on water quality and fish habitats (as presented in Chapters 8 and 10) is assessed as **negligible** which will not result in a significant effect with the good practice measures in place.
- 14.8.27 As noted in Chapter 18, a Fish Monitoring Plan would be implemented, including provision for pre, during- and post-construction fish monitoring in consultation with the River Tweed Commission. The magnitude of change on anglers is assessed to be negligible which would result in a **negligible** effect which is not significant.

Operational Effect

- 14.8.28 The potential for socio-economic effects during the operational phase is assessed for the local WSA (Scottish Borders Council administrative area), regional WSA (Scotland) and the LAI.

Wider Study Area – Socio-Economics*Assumptions of the Assessment*

- 14.8.29 If the Proposed Development were permitted and built, when it became operational it would require a small team of personnel to provide servicing, maintenance, repairs and other operational support. Based on information provided by the Applicant, it is estimated that an annual average of three permanent locally-based direct jobs are likely to be created by the Proposed Development during its operational phase.

Potential Effect on the WSA

- 14.8.30 As well as the direct effects on employment there would also be indirect effects generated throughout the operational phase. Indirect effects arise from the placing of contracts with other businesses, both in the local WSA and elsewhere in the regional WSA (Scotland) supplying services and materials to the Proposed Development during its operational phase. Examples of such supply chain activity would include the procurement of:
- site maintenance;
 - waste management and recycling;
 - habitat management;
 - contractors for road maintenance, ditching, vegetation management, fencing and gate repair, etc;
 - fuel supplies;
 - supply of other consumables, such as lubricants, spare parts, office supplies, etc;
 - plant and equipment hire; and
 - turbine inspections.
- 14.8.31 In addition, local shops, cafes, filling stations, and hotels and other accommodation providers may experience an increase in business during the operational phase (e.g. from visiting technicians needed for equipment maintenance and servicing).
- 14.8.32 Overall, based on experience with similar projects elsewhere in Scotland it is expected that there could be between eight and ten indirect jobs created in the operational and maintenance supply chain for the Proposed Development located within the WSA.
- 14.8.33 In terms of the local direct and indirect jobs creation, the overall total number of full-time equivalent jobs that could be created in WSA area is between 11 and 13. The sensitivity of the regional WSA labour market is considered to be medium. Given that there are around 53,000 jobs currently located in the WSA, this stimulus to local job creation is judged to be a negligible change. The effect is **negligible** (beneficial) and therefore is not significant.

Local Area of Influence – Recreation and Tourism*Recreation Effect During Operation*

- 14.8.34 Visual effects on recreational receptors are assessed in Chapter 7, and the findings have been considered in the assessment below. Although it is important to note that a significant landscape and visual effect does not necessarily result in a significant socio-economic effect.
- 14.8.35 Viewers / visitors considered within the landscape and visual assessment include local residents, tourists, walkers, recreational route users and road users. The assessment of visual effects in Chapter 7 considers the changes that people would see in views from the various routes (including paths) identified in the LAI. Since the Proposed Development would be located to the east and south of existing turbines and the Zone of Theoretical Visibility (ZTV) is limited at lower elevations, there would be no significant visual effects from paths identified to the west and north.
- 14.8.36 Significant (moderate) visual effects are identified in Chapter 7 from VP9 at the Fruid Dam. The sensitivity of this receptor is considered to be medium. However, this is at the start of the Core Path which is then routed south-westwards away from the site and has little to no visibility along its length within the LAI (Figure 7.7). The magnitude of change is therefore low. The resultant level of recreational effect from this Core Path is considered to be **minor** and therefore the effect is not significant.
- 14.8.37 Figure 7.7 shows that all seven proposed turbines would be visible from approximately two thirds of the RoW from Hearthstane to Broad Law with the majority of visibility from the flanks of and summit of Broad Law itself (represented by VP12 in the visual assessment). The sensitivity of the RoW is considered to be medium. The visual assessment (Technical Appendix 7.3) notes that from VP12 the proposed turbines would be small elements in the panorama, which includes existing wind farms

(Glenkerie and Clyde) such that they would not be new features in the view. Although the proposed turbines would be the closest in the view, and would appear larger than other wind farms, with wind farms as existing elements in the view the magnitude of change to the panorama as a whole is low, and the effect **minor** and therefore not significant.

- 14.8.38 The creation of the recreational heritage trail with car parking facilities would provide enhancement of access through the site whilst promoting recreation, heritage and ecological interest in the area. The stretch of accessible wheelchair-friendly path to be created at the start of the trail (approximately 380 m) would provide benefit to all users, while a wider loop network on upgraded and existing tracks providing up to 5 km of walking, running or cycling provision. There is potential for linkages to be formed between the proposed tracks and other access tracks in the area. This could facilitate the implementation of longer recreational routes and enhance a variety of users' experience of the local and wider area.
- 14.8.39 The creation of the recreational heritage trail would be implemented through an Access Management Plan (a preliminary version of which is provided in Technical Appendix 14.1). The proposed recreational heritage trail has the potential to become a resource of regional importance and is therefore considered to be of medium sensitivity. The magnitude of change would be medium. The effect of the creation of the trail would be **moderate** (beneficial). The effect would be an increase in recreation within the site and LAI providing enhanced access opportunities from locals and visitors to the area and is significant in EIA terms.
- 14.8.40 The operational phase of the Proposed Development would not result in any effect on anglers within the LAI.

Tourism Effect During Operation

- 14.8.41 Multiple published studies have examined whether there is a link between the development of wind farms and changes in patterns of tourism spend and behaviour, and the consistent conclusion is that there is little or no adverse effect. One of the most recent studies was undertaken by BiGGAR Economics (2021) and found that trends at a local authority level showed there was *"no relationship between the growth in the number of wind turbines and the level of tourism-related employment."*
- 14.8.42 The 2021 study also considered trends at a more localised scale, where an analysis of 16 wind farms which were in the immediate vicinity of tourism-related employment and constructed between 2015 and 2019, as well as a further 28 less recent case studies, found that *"in the majority of cases, tourism-related employment in the vicinity of wind farms had outperformed the trend for Scotland as a whole and for the local authority area in which the wind farm was based"*.
- 14.8.43 Of the full 44 wind farms analysed in the 2021 study, the study found that there was *"no relationship between tourism employment and wind farm development, at the level of the Scottish economy, across local authority areas nor in the locality of wind farm sites."*
- 14.8.44 When conducting academic reviews of other studies as part of the Scottish Government's Renewable Inquiry, a study by ClimateXChange (Dinnie, 2012) found that that *"there is no new evidence to contradict the earlier findings that wind farms have little or no adverse impact on tourism in Scotland"*, and a study by the University of Edinburgh (Aitchison, 2012) found that *"the findings from both primary and secondary research relating to the actual and potential tourism impact of wind farms indicate that there will be neither an overall decline in the number of tourists visiting an area nor any overall financial loss in tourism-related earnings as a result of a wind farm development."*
- 14.8.45 During operation, the patronage of local businesses would be markedly lower than that of the construction phase due to a smaller workforce being needed. The reduced workforce within the site would result in no effect to local businesses. As demonstrated by the BiGGAR study (2021), there would be no effects on tourism assets and the tourism economy in the LAI and local WSA as a result of the Proposed Development.

14.9 Additional Mitigation and Enhancement

Additional Mitigation

- 14.9.1 This assessment has demonstrated that there are no predicted significant adverse effects on the socio-economics, tourism or recreational assets of the study area as a result of the Proposed Development. There would be a moderate beneficial effect as a result of the creation of the recreational heritage trail which will result in a significant positive effect.
- 14.9.2 Additional mitigation measures are therefore not required.

Enhancement Measures and Best PracticePreliminary/ Outline Management Plans

- 14.9.3 A Preliminary Access Management Plan (PAMP) (included in Technical Appendix 14.1), sets out the proposed measures for safeguarding access during construction, providing access enhancements during the operational phase of the Proposed Development and facilitating opportunities for improving access in the local area surrounding the Proposed Development including addressing the basic infrastructure associated with improving access such as car parks, trailheads and path improvement, inclusive of accessible paths within the Proposed Development and would set up a framework for delivering improved access arrangements.
- 14.9.4 The good practice measures for management of the construction works are set out in an outline Construction Environment Management Plan (CEMP), which is provided in Technical Appendix 3.1.
- 14.9.5 An outline Construction Traffic Management Plan (CTMP) (Technical Appendix 12.1) proposes measures for management of delivery of goods and services during construction.
- 14.9.6 The preliminary and outline management plans would be further developed prior to construction commencing; and managed by suitably worded planning conditions.

Community Benefit Fund

- 14.9.7 Should the Proposed Development gain consent, a Community Benefit Fund would be made available to the community as set out within the PAC Report. This is offered on the basis of a payment per MW of installed capacity at the Scottish Government recommended rate at the time of commissioning the Proposed Development. At present the recommended rate is £5,000 per MW (Scottish Government (2019) (index linked from first payment) of installed electricity generating capacity. It is estimated that, depending on the type of investment selected, the community benefit fund alone would accrue benefits to local groups and organisations of approximately £12.6 million over the 50-year life of the Proposed Development. It is likely a proportion of this will be spent with local suppliers.
- 14.9.8 The Applicant is keen to offer Shared Ownership for the Proposed Development, should there be interest from local groups or organisations. The Applicant would be willing to engage locally in order to bring this forward. Local Energy Scotland can provide independent advice and support to communities interested in the shared ownership opportunities. Further details of the consultation effort associated with and response from communities is provided in the PAC Report accompanying the application.
- 14.9.9 Although the community benefits would be considered as a benefit of the wider Proposed Development, it is noted that they would not be considered mitigation, nor a material planning consideration, and have not been factored into the assessment.

14.10 Residual Effects

- 14.10.1 No significant adverse residual effects are predicted during the construction and operation of the Proposed Development. As noted above, no significant adverse residual effects are therefore predicted for the decommissioning phase.
- 14.10.2 A significant beneficial effect on recreation is predicted due to the moderate beneficial effect as a result of the creation of the recreational heritage trail.

14.11 Cumulative Assessment

- 14.11.1 Cumulative effects in relation to socio-economics could arise as a result of competition for materials, workers, accommodation and further supply chain products in relation to the construction of other prospective or consented projects. Cumulative effects could also occur if multiple developments were under construction in close proximity to one another, impacting tourism amenity or restricting recreational access.
- 14.11.2 Construction of the Whitelaw Brae Wind Farm has commenced and therefore the construction period is unlikely to overlap with the Proposed Development. There are two consented wind farm developments (Glenkerie Wind Farm Extension and Priestgill Wind Farm) within the WSA and one further development at application stage (Grayside Wind Farm) that are of a scale and proximity that could result in cumulative tourism and / or recreational effects. However, any coinciding construction within the same local authority area could result in economic or employment effects, regardless of being within a distance where tourism and / or recreational effects could occur.
- 14.11.3 The effects related to public access assessed for the Proposed Development individually are expected to occur in isolation, with the greatest magnitudes of change occurring to those receptors which are within the Proposed Development boundary.

- 14.11.4 The evidence set out from paragraph 14.8.41 to 14.8.45 details the current research on the effect that onshore wind farms have on the volume and value of tourism in Scotland. The evidence shows that wind farms have a negligible effect on tourism, with no relationship between wind farm development and tourism employment within a local authority and, in some cases, tourism levels increasing alongside the number of wind farms being developed.
- 14.11.5 Due to the Proposed Development being on the mainland of Scotland, within relatively close proximity to two cities, there is not expected to be a scarcity of materials and the related supply chain products which can prove difficult in developments elsewhere. The population of the WSA, along with nearby local authorities, would mean that it is reasonable to assume that there is a readily available workforce to construct these developments concurrently. The location of the Proposed Development and cumulative developments within proximity of cities means that a ready supply of accommodation venues is available.
- 14.11.6 Finally, the locale of wind farms currently under application could also result in further local community benefits, through the implementation of the Onshore Wind Sector Deal for Scotland (Scottish Government, 2023b). This could increase the volume of community benefits received locally, both in terms of investment and employment, which could maximise the local beneficial effects of the proposed and cumulative developments.

14.12 Summary

- 14.12.1 This assessment has considered data from a diverse range of sources to determine the likely effects of the Proposed Development on the local economy, together with local effects on tourism and recreation assets. The potential effects on the economy and identified assets take account of good practice measures to be adopted.
- 14.12.2 The construction of the Proposed Development would result in an increase in employment of 0.05 % and an increase in the size of the local economy of 0.06 %. During operation of the Proposed Development there would be limited direct and indirect employment creation. There would therefore be a **negligible** (beneficial) effect, which is not significant, on employment and the local economy of the Scottish Borders administrative area (the local WSA) as a result of the construction and operation of the Proposed Development.
- 14.12.3 During the construction of the Proposed Development there is the potential for a **negligible** (beneficial) and not significant effect on accommodation assets through providing construction worker accommodation during the typical 'low season'. The potential for temporary displacement of tourism visitors (through competition for accommodation) from the area would result in a **minor** (adverse) and not significant effect.
- 14.12.4 There is the potential for tourism assets (such as food and drink businesses) to experience a **moderate** (beneficial) effect, which is not significant, during construction as a result of increased spending in the area. A **negligible** (adverse) effect on tourism assets is possible, although not considered likely, as a result of temporary disruption from construction activities. There would be no effect on tourism assets of the tourism economy as a result of the operation of the Proposed Development.
- 14.12.5 Users of recreational routes and areas, including walkers, cyclists, anglers etc, may experience a temporary **negligible** (adverse) and not significant effect as a result of construction activities. During the operational phase users of the Core Path and Right of Way to the west of the site may experience a **minor**, and not significant, effect as a result of views of the Proposed Development from the recreational routes. The creation of a recreational heritage trail would result in a **moderate** (beneficial) effect which will result in a significant beneficial effect.
- 14.12.6 The assessment concludes that there are no significant adverse effects that would require the implementation of additional mitigation measures and therefore the residual effects of the Proposed Development are effectively the same as the potential effects.

14.13 References

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