

Contents

13.0 Socio-Economics, Tourism and Recreation	13-1
13.1 Introduction.....	13-1
13.2 Legislation, Policy and Guidance	13-2
13.2.1 Legislation	13-2
13.2.2 National Policy and Guidance	13-2
13.2.3 Local Policy and Guidance	13-4
13.3 Scope and Consultation.....	13-5
13.3.1 Consultation.....	13-5
13.3.2 Effects Scoped Out.....	13-6
13.4 Approach and Methodology	13-7
13.4.1 Scope of Assessment.....	13-7
13.4.2 Baseline Characterisation	13-7
13.4.3 Sensitivity Criteria.....	13-11
13.4.4 Magnitude of Effect.....	13-12
13.4.5 Significance Criteria.....	13-13
13.5 Environmental Baseline and Potential Sources of Impact.....	13-14
13.5.1 WSA Baseline.....	13-14
13.5.2 LAI Baseline	13-20
13.5.3 Future Baseline	13-22
13.6 Assessment of Potential Effects.....	13-24
13.6.1 Embedded Mitigation	13-24
13.6.2 Enhancing Local Benefits.....	13-24
13.6.3 Construction Effects.....	13-24
13.6.4 Operational Effects.....	13-27
13.6.5 Decommissioning Effects	13-30
13.7 Assessment of Cumulative Effects	13-30
13.8 Summary.....	13-31
13.9 References	13-31





13.0 Socio-Economics, Tourism and Recreation

13.1 Introduction

This Chapter considers the Likely Significant Effects (LSE) that the proposed Aultmore Wind Farm (the proposed development) may have on the Socio-Economics, Tourism and Recreation of the area/region surrounding the Site. Where relevant, effects are also considered within the rest of Scotland and the United Kingdom (UK). The specific objectives of this Chapter are to:

- describe the current baseline;
- describe the assessment methodology and significance criteria used in completing the impact assessment;
- describe the potential effects, including direct, indirect and cumulative effects;
- describe the mitigation measures proposed to address any identified LSEs; and
- assess the residual effects remaining following the implementation of mitigation measures.

The impacts on Socio-Economics, Tourism and Recreation may come as a result of direct or indirect interaction between the proposed development and the socio-economics of the area/region, where the interactions could be positive or negative.

Socio-Economics, Tourism and Recreation impacts during the construction phase of the proposed development include the temporary creation of employment opportunities, and potential adverse effects on recreational and tourism receptors. Technical information used to support the economic modelling of employment and Gross Value Added (GVA)¹ effects has been provided by Vattenfall Wind Power Limited (the applicant).

Once operational, impacts on the local labour market arising from operation and maintenance jobs would be more limited. However, there is potential for further long-term benefits to the community which could arise from harnessing increased spend in the local area from Site workers and ancillary services to Site, ensuring educational workshops and visits for local schools, in kind benefits and community benefit fund payments, as well as the potential opportunity for shared ownership in the proposed development. There is also the potential for adverse effects during the operational phase on tourism and recreation assets.

The impacts 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 35 years. Future improvements in technology and efficiency cannot be predicted, nor can future legislative changes, however, a worst-case scenario of the impacts mirroring those of the construction phase is considered.

The assessment has been carried out by Anne Dugdale, of SLR Consulting Ltd. Anne has over 25 years' experience and is highly qualified, with an MA in Town and Regional Planning and is a Member of the Royal Town Planning Institute. She has managed a wide range of planning applications and Environmental Impact Assessments for major projects throughout the UK. Her experience in business development and commercial awareness has led her to develop expertise in supply chain, employment and skills issues in Socio-Economics, Tourism and Recreation assessment.

The Chapter is supported by **Figures 13.1-13.10**, which are referenced in the text where relevant.

¹ Gross value added (GVA) measures the contribution to an economy of an individual producer, industry, sector or region.



13.2 Legislation, Policy and Guidance

A summary of the legislation, policy and guidance relevant to Socio-Economics, Tourism and Recreation is provided in the following sections. For a full list of planning policies of relevance to this EIA see **Chapter 4: Climate Change, Renewable Energy and Planning Policy**. The **Planning Statement** addresses the planning policy position in full and should be referred to.

13.2.1 Legislation

13.2.1.1 Land Reform (Scotland) Act 2003

The Land Reform (Scotland) Act 2003 is the legislative basis for the establishment of a statutory framework for the right of public access to outdoors, including most of Scotland's land and inland waterbodies. The right to access is defined in Section 1 of the Act, where it is explicit that "Everyone has the statutory rights established by this part of the Act" to access and cross land, inland water and the intertidal foreshore:

- a) "for recreational purposes;
- b) for the purposes of carrying on a relevant educational activity; or
- c) for the purposes of carrying on, commercially or for profit, an activity which the person exercising the right could carry on otherwise than commercially or for profit."

The Act also sets out the responsibilities of the public, whereby a person only has access rights if they are "exercised responsibly", where 'responsible access' is defined as "the exercise of these rights in a way which is lawful and reasonable and takes proper account of the interests of others and of the features of the land in respect of which the rights are exercised."

Section 17 sets out the duty of the local authority to draw up a plan for a system of Core Paths which are suitable for public use, with Section 18 offering further guidance on the establishment of a Core Paths plan.

13.2.2 National Policy and Guidance

13.2.2.1 National Planning Framework 4

National Planning Framework 4 (NPF4) (Scottish Government, 2023a) 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."

Continuing, stating that project design and mitigation should demonstrate how the impacts of public access are addressed "including impact on long distance walking and cycling routes and scenic routes".

13.2.2.2 Onshore Wind Policy Statement 2022

The Scottish Government's 'Onshore Wind Policy Statement' (2022a) states the reasons behind 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."



13.2.2.3 Scotland's National Strategy for Economic Transformation 2022

Published in March 2022, the National Strategy for Economic Transformation (Scottish Government, 2022b) sets out the priorities over the forthcoming ten years to maximise Scotland's economic opportunities.

The Strategy aims to move to a 'just transition', whereby a green economic recovery from the impacts of the Covid-19 pandemic is driven through the creation of a wellbeing economy. It is envisioned that this will be achieved in part by:

"building on our strengths in sectors like energy, financial services and life-sciences and carving out new strengths in technology, space and decarbonisation."

13.2.2.4 Environmental Impact Assessment Handbook

The Scottish Natural Heritage (now NatureScot) handbook on Environmental Impact Assessment (Scottish Natural Heritage, 2018) states (at E.2.2) that:

"the Environmental Statement may set out material considerations which could outweigh the [relevant planning] policies – such as economic benefits or benefits to other aspects of the environment that may be enhanced rather than harmed".

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

This guidance was updated in 2019 as a result of the Scottish Government's (2019a) recognition that the renewables industry is in a period of transition at the moment, following changes to UK Government support schemes. This means that new models of community benefits, and new approaches, are likely to be needed. The revised guidance places a greater focus on achieving a lasting legacy for local communities underpinned by a well-developed community action plan. The guidance notes that within the previous 12 months, 214 projects offered community benefits packages totalling over £15 million. The guidance also states its understanding 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 MW per year due to financial constraints or impacts to the feasibility of keeping the cost of energy affordable for consumers. 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.

13.2.2.6 Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments

The Scottish Government also sets out principles for a local community's financial benefit from the development of renewable energy resulting from a shared ownership scheme, through its 'Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments' (Scottish Government, 2019b). Within the document, the Scottish Government set out their ambition for at least half of all newly consented renewable energy developments to have an element of shared ownership by 2020 and 2GW by 2030.

Shared ownership is defined as "any structure which involves a community group as a financial partner over the lifetime of a renewable energy project", with guidance provided on the process of a renewable energy business making an offer, and a community accepting that offer. The aim of the guidance is to ensure that Scottish communities continue to benefit from local projects in a manner that is appropriate for the current and future context in which renewable energy projects are developed, and advises on how local communities, renewable energy companies and local authorities can work together to achieve this.



13.2.2.7 Onshore Wind Sector Deal for Scotland 2023

Following engagement between the Scottish Government and renewable energy developers, the Onshore Wind Sector Deal for Scotland (Scottish Government, 2023b) was published with plans to reduce permitting timelines and increase the onshore wind capacity in Scotland to 20GW by 2030.

The deal aims to further collaboration between the public and private sectors through upskilling/reskilling workers and actions to retain local supply chains.

The Sector Deal also builds upon the Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments guidance, with an agreement of community benefits packages which 'meet or exceed' the principles previously set out in 2019.

13.2.2.8 Good Practice During Wind Farm Construction

Good Practice Guidance on Wind Farm Construction (Scottish Renewables, 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.

13.2.3 Local Policy and Guidance

13.2.3.1 Moray Local Development Plan 2020

The local statutory Development Plan applicable to the proposed development comprises the Moray Local Development Plan (LDP) (Moray Council, 2020) and associated statutory Supplementary Guidance. The LDP was formally adopted on 27 July 2020 and sets out how the Moray Council (MC) sees the Moray LDP area developing over the next 10 years and beyond. Policies from the LDP that are relevant to Socio-Economics, Tourism and Recreation include:

- PP2: Sustainable Economic Growth;
- DP1: Development Principles; and
- DP9: Renewable Energy.

13.2.3.2 Moray Core Paths Plan 2011

The Core Paths Plan is a requirement of the Land Reform (Scotland) Act 2003, and sets out the Council's adopted Core Paths and their objectives and policies for their development, improvement, management and promotion.

The Core Paths were chosen as a result of extensive public consultation to produce an initial draft, which were further refined based upon the physical nature of each route and their integration with the wider Core Paths network. The finalised Paths were chosen based on a number of criteria:

- links communities and places together;
- multiple use and multiple benefits;
- community demand;
- supports the wider path networks;
- Moray Local Outdoor Access Forum endorsement;
- environmental impacts; and
- a clear 'added value' which will be derived from designation as a Core Path.



13.2.3.3 Moray Economic Strategy 2022

The Moray Economic Strategy (Moray Council, 2022) sets out the Council's strategy to grow and diversify the local economy over the ensuing 10 years after its publication. It aims to achieve this through the attainment of the Strategy's four stated outcomes:

- 1 **Qualification Levels** - An increase across all ages and genders in qualifications relevant to growth sectors;
- 2 **Small Business Growth** - More small and medium-sized businesses employing between 10 and 100 people;
- 3 **Talent Attraction, Retention and Return** - More skilled, higher paid jobs that deliver net immigration in the 16-29 age range; and
- 4 **Business Competitiveness** - An increase in capital investment and focused workforce development to strengthen competitiveness.

Of relevance to the proposed development is the acknowledgement of the economic activity resulting from the energy transition sector, including onshore wind, as supporting the increase in employment opportunities that are considered to be 'green jobs'. The local supply chain opportunities resulting from renewable energy development are further noted as potential avenues for economic growth.

13.3 Scope and Consultation

13.3.1 Consultation

Consultation with stakeholders has principally been conducted by way of the request for a Scoping Opinion, as described in **Chapter 5: Approach to EIA and Consultation**. This is summarised in **Table 13.1**.

Table 13.1: Scoping Key Issues

Consultee	Summary of Key Issues	Addressed in Chapter
Moray Council, Scoping Response, 13 December 2021	Q25. Confirmation that the proposed study area is considered appropriate for the assessment is requested. "Yes"	The study area has been retained, as per Section 13.4.2.1 .
	<i>"Public outdoor access rights apply to all of the land affected by the proposed development under the Land Reform (Scotland) Act 2003. Access rights will be impacted on by the development both during and after construction. Such impact will be limited due to the remoteness of the site with a relatively low level of usage by access takers. Nevertheless the scoping report should address outdoor access as an issue with mitigation being considered through a Public Access Plan."</i>	An Access Management Plan will be produced and implemented as part of a planning condition, with the final details to be agreed between the applicant and Moray Council. A draft AMP is provided as Technical Appendix 2.3 .
	<i>"I suggest that the 'Public Access Plan' should specifically address the following: 1. Construction site – General access rights can be suspended from the construction site. The construction site needs to be clearly demarked on the ground with signage advising the public of reasons, duration and alternative options in relation to the access rights suspension. Objective here is to minimise disruption as much as possible to outdoor access. Promoted routes that will be affected include the Fishwives path and the Clashmadin Cycle Trail. 2. Maximise outdoor access opportunities during wind farm operation. Promotion should include signage and</i>	An Access Management Plan will be produced and implemented as part of a planning condition, with the final details to be agreed between the applicant and Moray Council. It is assumed that the elements of the AMP specified by Moray Council will be implemented.



Consultee	Summary of Key Issues	Addressed in Chapter
	<p>map boards at all principle access points and path junctions featuring the network of paths and tracks available at the site.</p> <p>3. Linkages to the wider access network. Linking paths include the Fishwives path and the Clashmadin trail and opportunities should be explored to improve these routes as part of the development.</p> <p>4. Accessible access Controls. All gates etc. to allow for access by all users i.e. horse riders, cyclists, pedestrians and the less able."</p>	<p>A draft AMP is provided as Technical Appendix 2.3.</p>

A series of public consultation events were held in the local area in March 2022 and in August 2023 in addition to general engagement and communication with local Community Councils, community groups, local businesses, general public and other key stakeholders. The consultation events provided the public with an opportunity to learn about the proposed development through detailed information boards and visualisations, as well as discussion with the project team. Feedback forms were also provided to encourage people to submit their comments to the applicant on the proposed development at both an early 'scoping' stage of design as well as a later 'final design' stage of design - including perceived benefits, concerns or issues - which could then be considered by the applicant.

Further details about the consultation and engagement activity undertaken by the applicant can be found in the Pre-Application Consultation (PAC) Report which accompanies the application and EIAR.

13.3.2 Effects Scoped Out

Effects on land use have been scoped out as the predominant land uses on the Site currently comprise commercial forestry, which is addressed within **Technical Appendix 2.2: Forestry.**

Prior experience on wind farm developments in the region has shown that there would not be a large influx of workers to the area during the construction phase and, consequently, it is not expected that there would be a significant effect on the demand for housing, health or educational services. These matters have therefore been scoped out.

Effects on the tourism economy due to the permanent presence of the proposed development at the operational phase have been scoped out. 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."*

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"*.

Of the full 44 wind farms analysed in the 2019 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."*

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."

Additionally, recreational activities that are beyond the boundaries of the Site are scoped out unless they are promoted regionally or nationally and therefore likely to draw in visitors from outside the area.

13.4 Approach and Methodology

13.4.1 Scope of Assessment

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 within the parameters of the proposed development.

It considers the effect of the proposed development on the economic resource, including employment, within the local, regional and national context, as well as more local effects such as the potential impacts on tourist attractions and recreation facilities within and in the vicinity of the proposed development.

The key impacts for the assessment of potential effects relating to the proposed development are short-term beneficial direct and indirect employment and economic effects and potential adverse on tourism and recreation assets.

During the operational phase, it is expected that many of these impacts would have already been mitigated, however, there may continue to be some beneficial longer-term direct and indirect effects on employment and the economy, as well as potentially beneficial and/or adverse impacts on tourism and recreation associated with any increase in access tracks or losses of amenity.

Where appropriate conclusions from **Chapter 6: Landscape and Visual** have been utilised to inform the assessments within this Chapter. In those instances, cross references have been provided.

13.4.2 Baseline Characterisation

13.4.2.1 Study Area

The Socio-Economics, Tourism and Recreation assessment utilises a two-tiered study area which is considered to be representative of the quantitative and qualitative characteristics of the assessment. The study area for the Socio-Economics, Tourism and Recreation assessment was proposed within the Scoping Report and agreed by Moray Council, as shown on **Table 13.1**. The quantitative economic and employment aspects are defined by the Wider Study Area (WSA), whilst the qualitative tourism and recreation aspects are defined by the Local Area of Influence (LAI), as shown on **Figure 13.1**.

These two tiers are described as follows:

Wider Study Area (WSA)

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 that of the fixed location of the proposed development.

Due to potential indirect effects occurring at a wider spatial area than that of the local authority alone, the WSA is inclusive of three spatial levels:

- the local WSA (Moray Council administrative area)
- the regional WSA (Scotland); and
- the national WSA (UK).



Local Area of Influence (LAI)

The LAI forms the focus for assessment of both direct and indirect effects on those recreation and tourism receptors that are likely to experience effects at a more local level. The LAI for such developments is generally defined by the application boundary, together with an area extending to 5km from the Site. Given the scale of the landscape, which is very open and the sparsity of receptors in this area, it is proposed that the LAI will be extended to include an enlarged LAI that would also encompass the stretch of coast from Spey Bay to Sandend.

13.4.2.2 Information and Data Sources

Information used for the Socio-Economics, Tourism and Recreation baseline within the WSA and LAI was collected through a detailed desktop review of existing studies and datasets. These are summarised in **Table 13.2**.

Table 13.2: Summary of Key Sources

Title	Source	Year	Author
Annual Business Survey (ABS)	Annual Business Survey (ABS) - Office for National Statistics (ons.gov.uk)	2023	ONS
Annual Population Survey	https://www.nomisweb.co.uk/datasets/apsnew	2023	ONS
Annual Survey of Hours and Earnings - Resident Analysis	Earnings and hours worked, place of residence by local authority: ASHE Table 8 - Office for National Statistics (ons.gov.uk)	2023	ONS
Business Register and Employment Survey	Business Register and Employment Survey : open access - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)	2022	ONS
Estimates of the population for the UK, England, Wales, Scotland and Northern Ireland	Estimates of the population for the UK, England, Wales, Scotland and Northern Ireland - Office for National Statistics (ons.gov.uk)	2022	ONS
Input-output supply and use tables	Input-output supply and use tables - Office for National Statistics (ons.gov.uk)	2022	ONS
Moray Council Area Profile	Moray Council Area Profile (nrscotland.gov.uk)	2022	National Records Centre of Scotland
Scottish Annual Business Statistics 2021	Headline results - Scottish Annual Business Statistics 2021 - gov.scot (www.gov.scot)	2023	Scottish Government
Supply, Use and Input-Output Tables: 1998-2019	Supply, Use and Input-Output Tables: 1998-2019 - gov.scot (www.gov.scot)	2022	Scottish Government

13.4.2.3 Desk Study / Field Survey

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

No specific field survey has been undertaken with regard to socio-economic, tourism and recreation effects, although information has been gathered where relevant from surveys undertaken in respect of other disciplines, notably **Chapter 6: Landscape and Visual**.



13.4.2.4 Assessment Methods

Chapter 5: Approach to EIA and Consultation provides an overview of the approach to assessment and explains the parameters being assessed in the EIA. Chapter 5 also sets out the information on cumulative sites, and the approach to assessing cumulative effects.

There are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic effects of an onshore wind farm proposal, although, NatureScot's 'Environmental Impact Assessment Handbook' (Scottish Natural Heritage, 2018) makes reference to the potential effects of a development on outdoor recreation and opportunities for mitigation. However, there is a series of commonly used methodologies for such an assessment, including recognised approaches to quantifying economic effects both during the construction of a development and following its completion, that have been widely used in other major projects.

The assessment approach is to describe the baseline conditions, to identify likely effects from construction and operation of the proposed development, consider the sensitivity of receptors, and then to assess the likely significance of any effects. Any adverse effects considered to be 'significant' are further considered with regard to bespoke mitigation measures and residual effects following mitigation are then identified.

Regarding decommissioning, the impacts in approximately 35 years cannot be accurately quantified due to uncertainty over changes in the local, regional and national economies, as well as the spatial context of the proposed development. The impacts during the decommissioning phase are assessed using a qualitative approach based on the outcomes of the construction phase assessment, where the impacts are expected to be largely the same, albeit to a lesser degree and in approximately 35 years.

Any significant effects that would be direct, indirect, secondary, cumulative, short, medium and long term, permanent or temporary are examined and their significance assessed. These effects are identified as being beneficial (positive), adverse (negative) or neutral.

When assessing the socio-economic effects on employment and GVA, it is useful to distinguish between two types of effects generated by developments such as the proposed development:

- **Direct effects:** employment and GVA which is associated with the first round of capital expenditure within each impact area used in the assessment; and
- **Indirect effects:** employment and GVA associated with the supply of goods and services to main contractors by other companies located within each impact area of the assessment.

Regarding tourism and/or recreational receptors, direct effects are considered to be those where the receptor would be physically and directly impacted by any stage of the proposed development. For this to occur, the receptor would therefore need to be located within the Site Boundary (as shown on **Figure 13.1**).

Indirect effects on tourism and/or recreational receptors are considered to be those where the receptor is beyond the Site Boundary, but may still receive indirect effects as a result of the proposed development, such as visual or noise effects (as shown on **Figure 13.1**).

Gross Effects During Construction

The economic effects are assessed using an economic model, which initially estimates the expected direct gross employment and GVA implications of the proposed development. These estimates have been derived using the information on anticipated development expenditure (set out in **Section 13.4.2.5**), as well as assumptions obtained from the following sources:

- employment and GVA multipliers for Scotland, obtained from 'Supply, Use and Input-Output Tables: 1998-2019' (Scottish Government, 2022c);
- employment and GVA multipliers for the UK obtained from 'Input-output supply and use tables' (ONS, 2022a); and



- ratios of turnover per unit of GVA and GVA per employee from Scottish and UK Government data (Scottish Government, 2023c) (ONS, 2023a).

Using all of these sources, estimates have been derived of the direct gross employment and GVA effects that would be expected to be delivered by the proposed development for each of the three WSA levels.

Net Effects During Construction

The potential for net additional effects is considered and quantified by taking the estimates for the gross effects on the three WSA levels and accounting for three additionality concepts:

- **Leakage:** the proportion of development outcomes that benefit individuals or organisations located beyond the relevant area of impact (e.g., the local WSA). Leakage is generally higher at a local level, although it varies by the nature of development type;
- **Displacement:** 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; and
- **Multipliers:** an estimate for further economic activity associated with additional income and/or project procurement activity stimulated by development activity within the local WSA area under consideration.

The specific values assumed for multipliers for regional and national WSAs are sourced from national input-output tables and vary by the development expenditure categories set out in **Table 13.3**. Assumptions about leakage are based on local labour market indicators and experience of other wind farm developments located in Scotland.

13.4.2.5 Assumptions, Limitations and Confidence

The data available at a national level can vary between Great Britain and United Kingdom. Although it is noted that these terms are often used interchangeably colloquially, it is recognised that there is a geographical difference, therefore a difference in the data may be evident as well. This occurs as a result of specific datasets only having data for mainland Great Britain, whilst others have data for the entire UK.

Where available, particularly from data sourced from the Office of National Statistic (ONS), Great Britain 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 where relevant.

The datasets for the population trends have a sharp decrease for the year 2021. 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 Census 2021 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 pandemic.

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).

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 topics of other Chapters of this EIAR, where relevant.



Assumed Development Expenditure

The construction phase of the development would naturally result in an increase of employment, as well as economic effects resulting from expenditure on items such as Site preparation, development of access roads, purchase and delivery of materials, plant, equipment, and components, etc. 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.

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.

A breakdown of this predicted expenditure disaggregated by the main category of spend, using a 2021 price base, is shown on **Table 13.3**. A 2021 price base has been used to enable the benchmarking of expected economic effects – in particular, GVA – with available information published by the Office for National Statistics. Other information used to enable the development of capital investment expenditure was obtained from sources such as BVG Associates (2017) and RenewableUK (Vivid Economics, 2019), as well as project-specific data sourced from other onshore projects recently developed in Scotland.

Table 13.3: Predevelopment, Construction, and Commissioning Cost Estimates (2021 prices)

Category of Expenditure	£ millions
Development and project management costs	6.2
Turbines/plant	113.1
Electricals/grid connection/battery storage	30.3
Civils/contingency and miscellaneous	19.3
Total	168.9

The overall expenditure to construct the proposed development is expected to amount to nearly £169 million (2021 prices).

The construction phase socio-economic assessment in **Section 13.6.3.1** will utilise predictions of the spatial location of expenditure if each category of expenditure, derived from prior experience of similar 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.

13.4.3 Sensitivity Criteria

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 baseline to absorb or be influenced by the identified effects. 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 resource to accommodate the identified impacts over a period of time; and
- the level of usage and nature of users (e.g. sensitive groups such as people with disabilities).



Based upon professional judgement and experience on other large-scale developments, four levels of sensitivity have been used: high; medium; low; and negligible. These are defined in **Table 13.4**.

Table 13.4: 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 value²; • 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 detriment to its character; • is of low socio-economic, recreational 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, recreational or tourism value, or there is a wide choice of alternatives with available capacity within its catchment area.

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.

13.4.4 Magnitude of Effect

There are no published standards that define the thresholds of the magnitude of change for socio-economic, tourism or recreation impacts. 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 on other similar developments. The following four levels of magnitude have been adopted using professional judgement: high; medium; low and negligible.

² Which may include being of high value to a user group of high sensitivity (e.g. mobility impaired users)



These impacts can be beneficial, adverse or neutral. Criteria for each of these levels of magnitude for each receptor group are set out in **Table 13.5**.

Table 13.5: Magnitude Criteria.

Receptor Group	High	Medium	Low	Negligible
WSA economy	A change that would dominate over baseline economic conditions by >10%	A change that would be expected to result in a moderate change to baseline economic conditions by >5%.	A change that would be expected to result in a perceptible difference from baseline economic conditions by >0.5%	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%) 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%) 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.

13.4.5 Significance Criteria

The significance of effect of an impact on socio-economic, tourism and recreation receptors is initially assessed by combining the magnitude of the change and the sensitivity of the receptor. A significance matrix is presented in **Table 13.6** and comes from NatureScot's 'Environmental Impact Assessment Handbook' (Scottish Natural Heritage, 2018).

Table 13.6: Significance 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

Effects may be beneficial, adverse or neutral. Where an effect is classified as major, this is considered to represent a 'significant effect' in terms of the EIA Regulations. Where an effect is classified as moderate, this may be considered to represent a 'significant effect' but should always



be subject to professional judgement and interpretation, particularly where the sensitivity or change magnitude levels are not clear or are borderline between categories or the change is intermittent.

The significance matrix shown in **Table 13.6** therefore provides a guide to decision making but is not a substitute for professional judgement. Impacts and effects can be beneficial, neutral or adverse and these would be specified where applicable. It should be noted that significant effects need not be unacceptable or irreversible.

A statement of residual effects, following consideration of any specific mitigation measures, is provided.

13.4.5.1 Mitigation

The assessment takes account of any environmental principles that are incorporated into the design of the proposed development. These include good practice measures with regard to traffic management, control of noise and dust, signage and provisions for maintaining access for walkers, cyclists and horse-riders, details of which are set out in **Technical Appendix 2.3 Outline Access Management Plan (OAMP)**. Any additional mitigation measures that would reduce the level of any significant effects are set out and considered prior to assessing residual effects.

13.4.5.2 Cumulative Effects

In relation to economic effects, cumulative effects depend on the extent to which the supply chain and labour market within the local WSA have the capacity to meet demand for construction services from a number of similar developments. An assessment has been made as to whether it is considered likely that the cumulative effect indicates a loss of benefit as a result of cumulative developments, or an enhancement of opportunity which would help to develop expertise and capacity in the market. The cumulative effects assessment is able to make a quantitative judgement on potential loss of benefit due to cumulative developments. Enhancement of opportunity is identified only in qualitative terms.

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

13.5 Environmental Baseline and Potential Sources of Impact

This section comprises the existing conditions of the Site of the proposed development, accounting for each aspect of the assessment; socio-economics, and tourism and recreational assets.

The baseline conditions are split into the relative study areas, with the WSA (as described in **Section 13.4.2.1**) including:

- population; and
- labour market and supply chain.

This is followed by the baseline conditions of the LAI (as described in **Section 13.4.2.1**). The LAI baseline comprises:

- recreation; and
- tourism.

13.5.1 WSA Baseline

A baseline review of population and employment data has been undertaken which focuses on the local WSA (Moray administrative areas), although data for the regional WSA (Scotland) and the national WSA (UK/Great Britain) are provided for comparison where relevant.



13.5.1.1 Population

In June 2021, the population of Moray was 96,400, which represented 1.76% of Scotland’s total 5,479,900 population (NRS, 2022a), whilst the population for Great Britain (GB) is 65,121,700 (ONS, 2022b). For context, 91% of Scotland’s population live in 2% of its land area (NRS, 2022b).

Moray’s population experienced an increase of 2,900 residents from 2011 (93,700) over the 10-year period to 2021 (96,400) (ONS, 2022b). This represented a total increase of 3.1%, which was proportionately lower than that of Scotland (5.94%) and GB (3.4%). **Figure 13.3** details the year-on-year percentage changes in population over the 10-year period to 2021, beginning with the changes from 2010-2011. It shows a consistent growth in GB, with Scotland only experiencing a decline in 2021, however, Moray has experienced several years of population decline in five out of the eleven years represented. Moray also had the least consistent changes, showing both the greatest increase (1.61%) and decrease (-0.64%), as well as the highest growth in 2021 (0.73%).

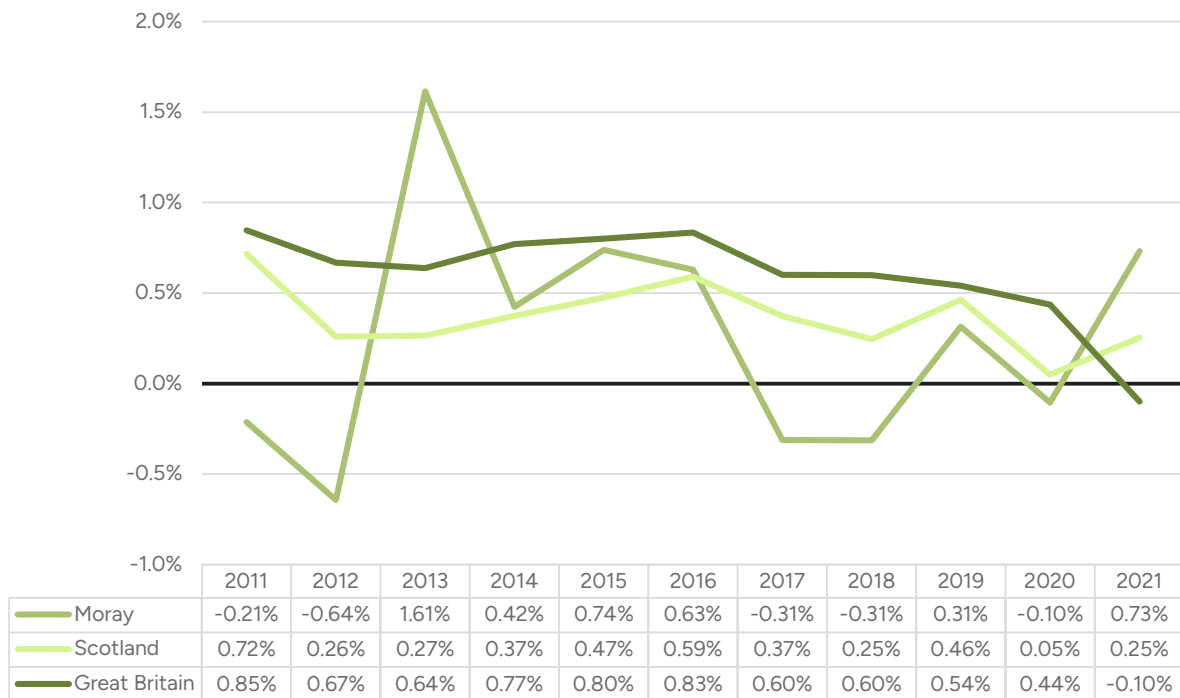


Figure 13.3: Changes in Population (2011 - 2021)

Moray has a smaller working population than average, with 61.1% considered to be of ‘working age’ (16-64) compared to 63.8% in Scotland and 62.9% in GB (ONS, 2022b). This is reflected in the number of 65+ residents, 22.3% in Moray, compared to 19.6% in Scotland and 18.7% in GB (ONS, 2022b).

13.5.1.2 Labour Market and Supply Chain

There are 48,700 economically active residents in Moray (ONS, 2023b), which proportionately, is a higher rate of activity in Scotland and matches that of GB, as shown on **Figure 13.4**. This infers that despite having a proportionately lower working age population, those living in Moray have a greater rate of employment and economic activity.



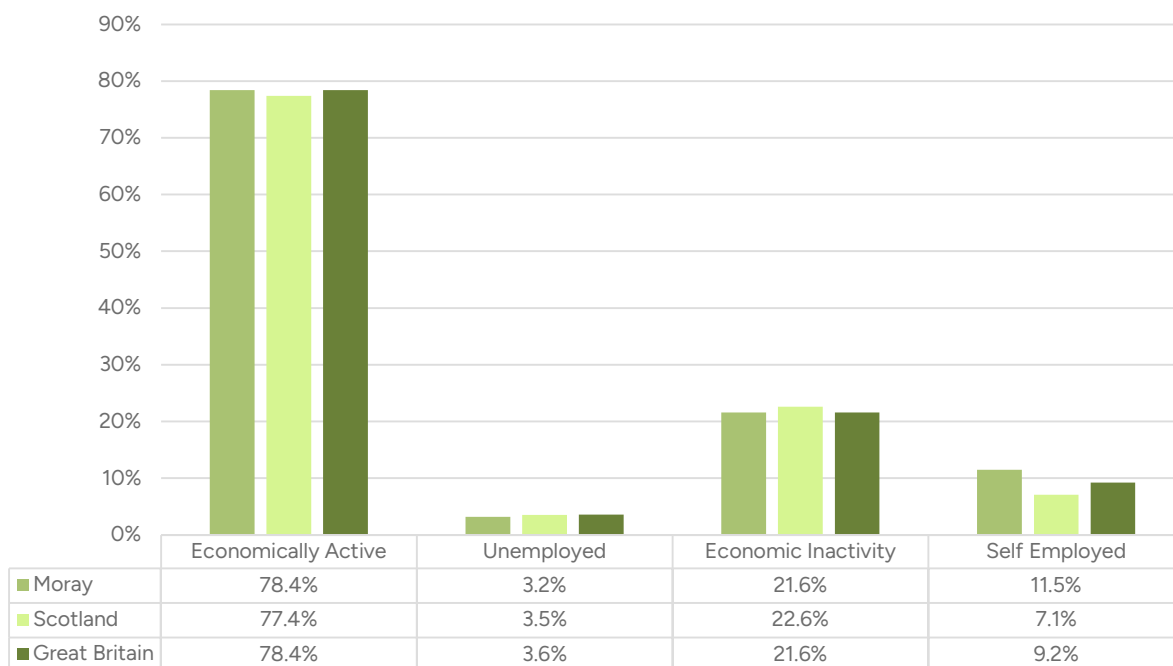


Figure 13.4: Labour Market

The higher rate of economic activity is also reflected in a lower rate of unemployment in Moray when compared to the rest of Scotland and GB. Economic inactivity refers to people not in employment who have not been seeking work within the last four weeks and/or are unable to start work within the next two weeks and is lower in Moray than in Scotland, but equal to that of GB. Furthermore, Moray has a higher rate of self-employment than that of the comparatives.

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 13.7** (ONS, 2023b).

Table 13.7: Employment by Occupation Type

Standard Occupational Classification	Moray (Total)	Moray (%)	Scotland (%)	GB (%)
1 Managers, Directors and Senior Officials	5,500	11.8	8.2	10.8
2 Professional Occupations	9,100	19.5	25.6	26.3
3 Associate Professional Occupations	7,800	16.7	15.1	14.2
4 Administrative & Secretarial Occupations	2,600	5.6	9.1	9.6
5 Skilled Trades Occupations	7,000	14.9	9.5	9
6 Caring, Leisure and Other Service Occupations	3,500	7.6	8.5	8.1
7 Sales and Customer Service Occupations	3,100	6.5	7.5	6.3
8 Process Plant & Machine Operatives	3,800	8.2	5.1	5.8
9 Elementary Occupations	4,300	9.2	10.9	9.6

Of note in **Table 13.7** is the significantly higher proportion of 'Skilled Trades Occupations' in Moray than in Scotland and GB, proportionately over 50%. Skilled trades 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 'Professional Occupations' in Moray than its comparatives.



Regarding the qualifications attained by the population, degree-qualified (or equivalent) residents accounts for 48.3% of Moray’s working age population. This is higher than GB, however, is lower than the Scottish average, as shown in **Figure 13.5** (ONS, 2023b).



Figure 13.5: Qualifications

Regarding qualifications of NVQ1 and above, there was a higher attainment in Moray than in Scotland and GB, which was reflected in the proportion of those who have attained ‘Other’ or ‘No Qualifications’.

According to the Office for National Statistics (ONS) Annual Survey of Hours and Earnings (ASHE), the average weekly gross earnings for residents of Moray was £598.80 (ONS, 2023c), which is lower than Scotland and GB which stand at £640.50 and £642 correspondingly.

Data on an area’s business population can be obtained from the ONS Business Register and Employment Survey (2022c) and 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 the infrastructure and other large-scale construction projects such as the proposed development. **Table 13.8** provides data on the structure of the local business base for Moray, both in absolute and relative terms, as well as Scotland and GB in relative terms.

Table 13.8: Employee Jobs by Industry

Employee Jobs by Industry ³	Moray (Total Jobs)	Moray (%)	Scotland (%)	GB (%)
A : Agriculture, forestry and fishing	1,250	3.4	1.8	0.7
B : Mining and quarrying	75	0.2	1.0	0.2
C : Manufacturing	6,000	16.2	6.8	7.6
D : Electricity, gas, steam and air conditioning supply	200	0.5	0.8	0.4
E : Water supply; sewerage, waste management and remediation activities	225	0.6	0.7	0.7

³ Note, the ONS Business Register and Employment Survey excludes self-employed, government-supported trainees and HM Forces



Employee Jobs by Industry ³	Moray (Total Jobs)	Moray (%)	Scotland (%)	GB (%)
F : Construction	2,250	6.1	5.6	4.9
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	5,000	13.5	12.7	13.9
H : Transportation and storage	1,500	4.1	4.0	5.0
I : Accommodation and food service activities	3,000	8.1	8.3	8.0
J : Information and communication	350	0.9	3.2	4.5
K : Financial and insurance activities	300	0.8	3.3	3.3
L : Real estate activities	300	0.8	1.3	1.8
M : Professional, scientific and technical activities	1,500	4.1	7.3	9.0
N : Administrative and support service activities	1,500	4.1	8.0	9.0
O : Public administration and defence; compulsory social security	2,250	6.1	6.5	4.7
P : Education	3,500	9.5	8.7	8.6
Q : Human health and social work activities	6,000	16.2	15.5	13.5
R : Arts, entertainment and recreation	1,250	3.4	3.0	2.4
S : Other service activities	500	1.4	1.6	2.0

The data in **Table 13.8** shows that the Construction sector in Moray is above the national average for both Scotland and GB respectively, indicating potential capacity for skills in the local WSA for construction services.

13.5.1.3 Local WSA Tourism Profile

Moray possesses a high value tourism sector due to its accessible nature and varied offering. The area is known for hunting, shooting and fishing. The mountains, coast, forestry, National Park and market towns offer both indoor and outdoor pursuits. 10% of Moray's workforce is employed in the tourism sector and accounts for 3.8% of total turnover of businesses. The economic impact of tourism rose to £129 million in 2017, an increase of £11 million or 9.6% on the previous year. In 2017, visitor numbers increased to 806,190 (up approximately 50,000 or 7.4%). The total number of visitor days increased to 1,874,470 (up 75,000 or 4.2%). Total employment supported by tourism rose by 77 full-time equivalent posts 2,846. Since 2009, an extra 177,000 people have visited the area, spending an additional £92 million (Moray Council, 2023).

Figure 13.6 details the top five free and paid visitor attractions in Grampian, in 2019 (VisitScotland, 2020).



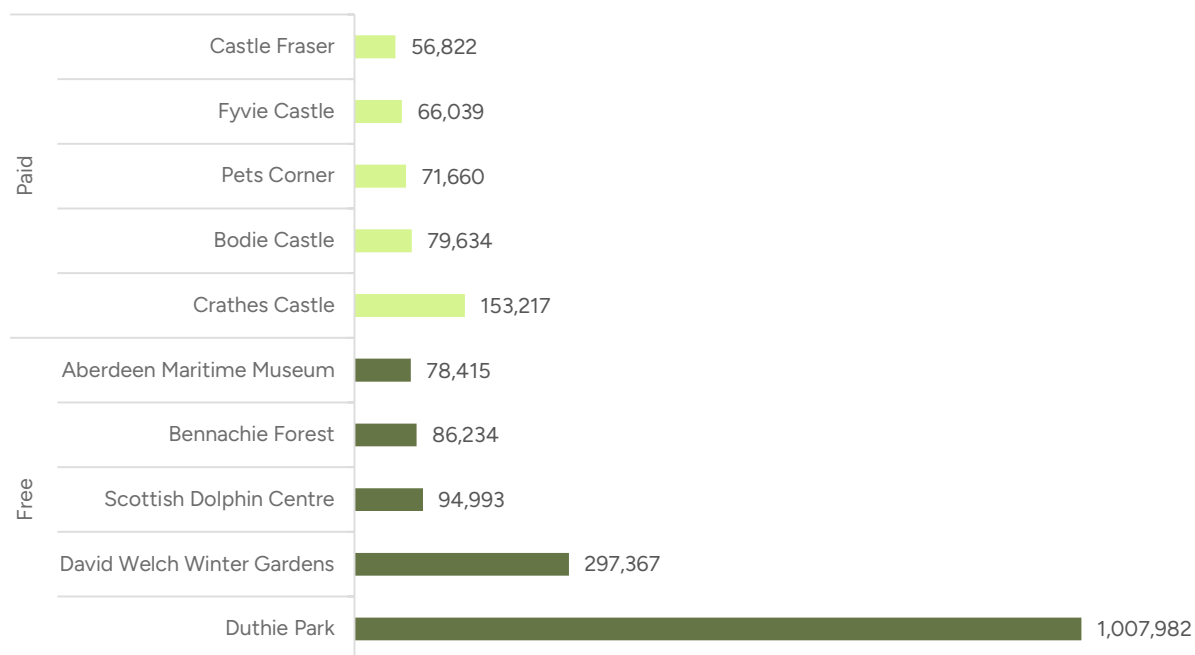


Figure 13.6: Top Five Free and Paid Visitor Attractions in Grampian 2019

The Scottish Dolphin Centre is the only visitor attraction within the LAI, with 94,993 visitors in 2019 as shown on **Figure 13.6** (VisitScotland, 2020). Although it is within the LAI, it is important to note that the attraction falls beyond 5km of the Site Boundary.

Figure 13.7 details the most popular activities undertaken as part of a day trip in Grampian, from 2016-2018, showing the most popular activity was to go for a meal.

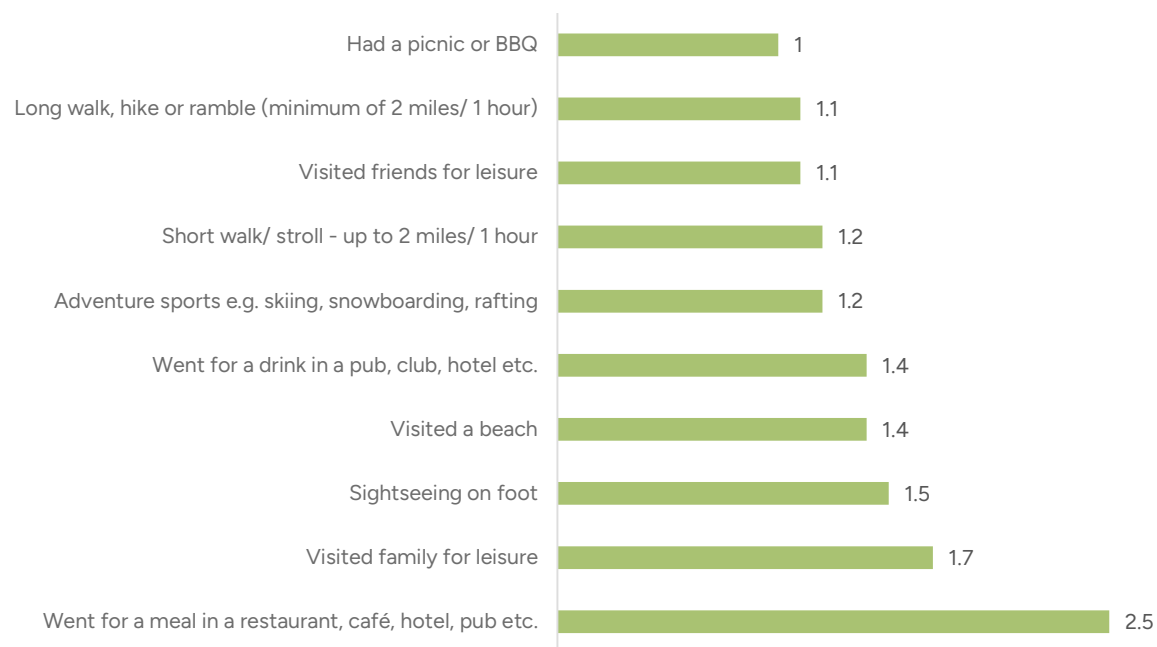


Figure 13.7: Most Popular Activities Undertaken as Part of a Day Trip, Grampian: 2016-2018 Average Annual Figures (Number of Day Trips in Millions)

As illustrated in **Figure 13.7**, the most popular activities are not geographically limited to the LAI and could be undertaken throughout the Grampian region.



13.5.2 LAI Baseline

The Local Area of Influence (LAI) forms the focus for assessment of both direct and indirect effects on those recreation and tourism receptors that are likely to experience effects at a more local level. The LAI for such developments is generally defined by the application boundary together with an area extending to 5 km from the Site, including main roads, identifiers and towns. Given the scale of the landscape, which is very open and the sparsity of receptors in this area, it is proposed that the LAI would be extended to include an enlarged LAI that would encompass the stretch of coast from Spey Bay to Sandend. The LAI baseline includes tourism and recreational receptors, including linear recreational routes such as Core Paths.

13.5.2.1 Recreation

This section is split into 'formal recreation' facilities which are considered to be those with paid or controlled entry, such as a museum, as well as other forms of recreation such as Core Paths, cycling routes or beaches, which are considered to be 'informal' and utilised freely without payment, as shown on **Figure 13.2**.

It is noted that only recreational assets that are promoted nationally or regionally and therefore likely to draw in visitors from outside the area located outside of the Site are scoped into the assessment, although tourist visitors to the area may be expected to make use of some of the local recreational attractions.

Formal Recreation

The Buckie Swimming Pool and Fitness Centre offers paid, formal, recreation within the LAI and is considered to be of local importance and low sensitivity.

Golfing in the LAI is a popular sport and could be a draw for tourists as well, with courses located throughout the area, however, those identified, Buckpool Golf Club and Keith Golf Course, would be considered within a local context and low sensitivity due to the wide availability of alternatives and lack of national promotion of the courses.

Informal Recreation

The general area of the LAI is home to various informal recreational activities, such as walking, hiking, and cycling. There are a number of designated paths. The following sections describe the various types of paths and trails within the LAI.

Long Distance Routes

The Moray Coastal Trail is a 72 km long-distance path that runs adjacent to the northern LAI boundary. As this is a nationally promoted route, considered to be one of Scotland's Great Trails, it is of high sensitivity.

The Speyside Way is a self-guided 137 km long-distance path that intersects the western LAI boundary. Again, as this is a regional, nationally promoted route, it is considered to be of high sensitivity.

Core Paths

Within the LAI, there is a Core Path, the KT01, that intersects the Site, as well as large clusters of footpaths in the north, south and west of the LAI, around Buckie, Keith and Fochabers respectively, as shown on **Figure 13.2**.

The Core Path routes are considered to be of local to medium importance and of low to medium sensitivity depending on the level of access provided to the wider network. None of those considered in the LAI are connected to a wider path network, so all are considered to be of local importance and low sensitivity.



Rights of Way

Through consultation with Scotways, one Rights of Way (RoW) has been identified within the Site boundary, GM/GM11/1, as well as forestry access tracks which could be used recreationally. GM/GM11/1 intersects the Site in a north-south direction and follows the same route as the Buckie Fishwives Heritage Path. Throughout the wider LAI, several further RoWs were identified, including:

- GB1-8;
- GM9-11;
- GM27;
- GM70;
- GM73-82;
- GM97-99;
- GM131; and
- GM136.

These are considered to be of local importance and low sensitivity. It is noted that no Scottish Hill Tracks have been recorded that cross or are close to the Site.

Heritage Paths

There is one route which passes through the Site and is promoted by the Heritage Paths Project (Scotways, 2023) for its historic interest, Buckie Fishwives Path, a 13.4 km former Trade Route shown on **Figure 13.2**. The Buckie Fishwives Path follows the same route as the KT01 Core Path and GM/GM11/1 RoW and is considered to be of regional importance and medium sensitivity.

Access Land

The lack of any designated or recorded paths in parts of the LAI does not preclude the public from using other land within the LAI for recreational purposes in accordance with the Land Reform (Scotland) Act 2003, including walking, cycling and horse riding. From Strava heatmap data (Strava, 2023), it is evident that the Site itself is used for recreational purposes, namely cycling and running.

Cycling

Sustrans (2023) have mapped an on-road route, National Cycle Route 1 (NCR 1), which runs adjacent to the northern edge of the LAI. This cycle route is part of a wider national network; therefore, it is believed to be of national importance and high sensitivity due to it being the only National Cycle Network route in Moray.

No local cycling routes have been identified, however, it is noted that the aforementioned walking routes are also available for cycling.

Horse Riding

There are no public facilities, stables or bridleways, for horse riding within the LAI. However, it is noted that the Site is widely used for horse-riding.

Beaches

As the LAI is deliberately coastal, there are numerous beaches including:

- Spey Bay, Beach;
- Portgordon Beach;
- Portessie Beach; and
- Findochty Beach.



Spey Bay is of regional importance and medium sensitivity as it is a coastal reserve whereas the other beaches can be classed as of local importance and low sensitivity.

13.5.2.2 Tourism

Tourism Attractions

Although relatively close to the coast, the area in the immediate vicinity of the Site does not have any particular interest as a tourist destination other than people looking for quiet relaxation, with a number of scattered holiday accommodation locations. The Moray Coast comprises a series of small towns and villages with low-key tourist accommodation and tourist attractions with the main attractions of regional significance being the Scottish Dolphin Centre at Spey Bay, the Moray Coast Trail which runs from Findhorn to Cullen, and the Speyside Way.

The Scottish Dolphin Centre, and Bow Fiddle Rock due to its landmark status, are likely to draw in visitors from around the UK hence national importance and high sensitivity. In contrast, Speyside Falconry, a commonplace attraction, is likely to attract local people and as a result can be classed as local importance and low sensitivity.

The LAI is also a popular destination to visit whiskey distilleries, including Roehill Springs Distillery and Strathisla Distillery, both of which are considered to be of regional importance and medium sensitivity.

The Buckie & District Fishing Heritage Centre is also located within the LAI and is considered to be of local importance and low sensitivity.

Accommodation

Following an online review of Airbnb, Google and other accommodation websites, for local accommodation businesses, close to the LAI, there are 78 located in the outlined accommodation area on **Figure 13.2**. These include:

- 11 bed and breakfasts;
- eight campsites;
- 18 hotels; and
- 41 self-catering.

Of the individual accommodation businesses identified, each are considered to be of local value and low sensitivity; however, collectively, they comprise a concentration of tourism-related businesses that can be of regional importance and medium sensitivity.

13.5.3 Future Baseline

The latest population projection data begins in 2018 (NRS, 2020), and shows a steady increase in the Moray population from 95,520 and to a peak of 95,792 in 2021, before steadily declining each subsequent year. Over the 25-year period, the population of Moray decreases by 2,554, or 2.67%, shown on **Figure 13.8**.



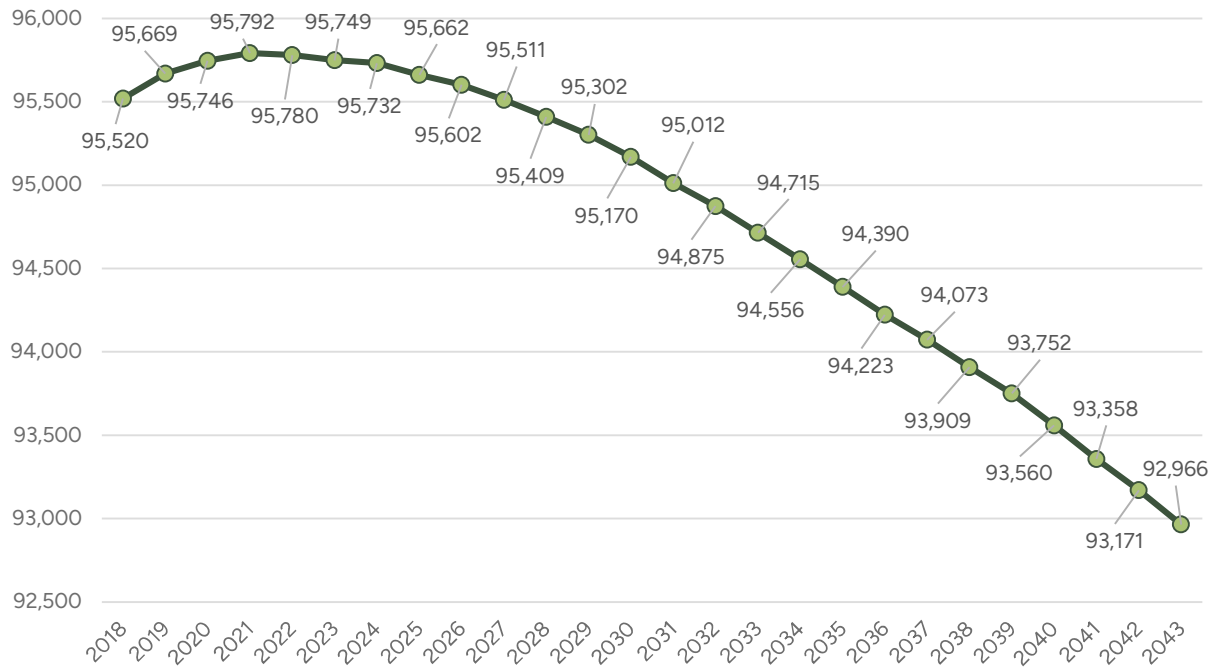


Figure 13.8: Moray Population Projection (2018-2043)

In terms of proportional decrease per year, 2042 to 2044 saw the sharpest decline of 0.22%, with the ONS model accounting for steady decline in the population for each year after 2021.

Comparatively, the total change over 25-years is the opposite of the comparatives, in which Scotland (%) (NRS, 2020) and GB (3.95%) are each expected to experience a growth in population (ONS, 2019), however, Scotland’s growth is predicted to slow to little change on the previous year by 2043. This was also true for the average year-on-year increase, with the full changes shown on **Figure 13.9**.

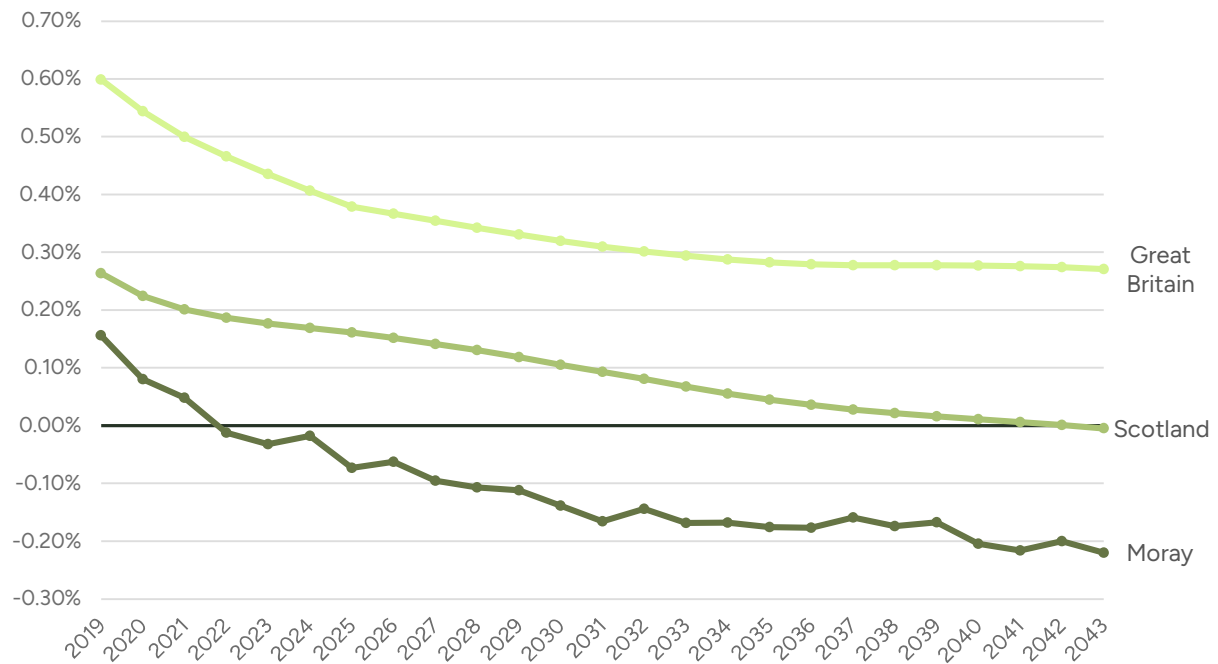


Figure 13.9: Changes in Population (2018-2043)

The projections, shown on **Figure 13.9**, illustrate that the future population of Moray will decrease, however, it would not decrease drastically. For Scotland, this change would become even less



evident than that of the national scale, slowing to less than a hundredth of a percent of change per year.

Under a "do nothing" scenario, a hypothetical alternative conventionally considered in the EIA Report as a basis for comparing the development proposal under consideration, the absence of the proposed development is not anticipated to change. The physical receptors represented in the tourism and recreational LAI baseline are not expected to undergo meaningful change.

Overall, it is considered that the future baseline would be broadly comparable with the baseline described in **Sections 13.5.1** and **13.5.2**.

13.6 Assessment of Potential Effects

13.6.1 Embedded Mitigation

The proposed development has been designed to include a range of measures to mitigate potential effects which are considered within the assessment. **TA 2.3 Outline Access Management Plan (OAMP)**, sets out the mitigation for impacted paths during construction, as well as any potential enhancements during the operation of the proposed development.

The proposed development also incorporates good practice measures for limiting the adverse effects of the construction works through an Outline CEMP, which is provided in **Technical Appendix 2.1: Outline CEMP**.

Measures are set out in **Chapter 2: Proposed Development Description** and also in **Chapter 11: Traffic and Transport** relating to how delivery of goods and services would be managed during construction so as to minimise impacts on sensitive receptors. The proposed management measures would be further developed in the final CEMP that would be adopted prior to construction commencing.

13.6.2 Enhancing Local Benefits

Although not considered mitigation within an EIA, the proposed development would also incorporate measures for enhancing the beneficial effects of construction on the local economy, particularly with regard to adding value to the local supply chain through implementation of a Local Contractor Policy, where additional weight in the tendering process is given to primary contractors that show a clear commitment to increasing local content in their supply chains.

The applicant will continue to liaise with the local community and local suppliers throughout the full supply-chain, as well as key stakeholders. This has been exemplified through the applicant already actively exploring the possibility of whether Buckie Harbour could be used for delivery of nacelles, which would result in further localised economic and employment benefits, but cannot be confirmed, therefore assessed, at this application stage.

The usage of Buckie Harbour in its current format has been concluded to be less feasible for the delivery of turbine components for the proposed development, however, through regular consultation with the local community, it was evident that there was a strong interest in the usage of the harbour, and that there are proposals for the upgrading of the harbour facilities in the future. As a result of these discussions, the potential usage of Buckie Harbour will continue to be monitored and considered as a potential option to maximise the local benefits of the delivery of the turbines.

13.6.3 Construction Effects

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

13.6.3.1 Wider Study Area – Socio-Economics

The socio-economic construction phase effects are assessed for each of the WSA levels, the local WSA (Moray administrative areas), the regional WSA (Scotland) and the national WSA (UK).



Gross Effects During Construction

Combining the employment and GVA multipliers, and the ratios of turnover per unit of GVA and GVA per employee sources, summarised in **Section 13.4.2.4**, with the projected development expenditure (£168.9 million), summarised in **Section 13.4.2.5**, estimates have been derived of the direct gross employment and GVA effects that would be expected to be delivered by the proposed development for three WSA levels.

These estimates are presented in **Table 13.9** for both the development period as a whole and on a per annum basis. The employment estimates are provided on a person-year basis and the GVA estimates are presented using a 2021 price base.

Table 13.9: Estimates of Gross Development Phase GVA and Employment Effects

Spatial Area	Gross GVA overall (£m, 2021 prices)	Gross GVA p.a. (£m, 2021 prices)	Gross Employment total (person-years)	Gross Employment p.a. (person-years)
Local WSA	5.8	3.9	86	57
Regional WSA (total, including local WSA)	16.4	10.9	232	155
National WSA (total, including regional WSA)	40.7	27.1	575	383

GVA worth £5.8 million would be expected to be generated by the proposed development in the local WSA economy during the 18-month development, construction, and commissioning phase. This is equivalent to £3.9 million per annum over this period.

The equivalent predicted overall GVA total for the regional WSA is £16.4 million (£10.9 million p.a.), and for the national WSA as a whole it is £40.7 million (£27.1 million p.a.).

In terms of employment, a total of 86 person-years of gross temporary employment is predicted to be generated in the local WSA economy during the 18-month construction phase. This amounts to an average of 57 person-years p.a. during the construction period.

The equivalent predicted overall total for the regional WSA is 232 person-years (155 p.a.), and for the national WSA it is 575 person-years (383 p.a.).

Net Effects During Construction

With the addition of the leakage, displacement and multipliers additionality concepts, summarised in **Section 13.4.2.4**, the estimates of net additional development phase effects, both overall and on a per annum basis during the anticipated 18-month construction period, are shown on **Table 13.10**.

Table 13.10: Estimates of Net Additional Development Phase GVA and Employment Effects

Spatial Area	Net GVA overall (£m, 2021 prices)	Net GVA p.a. (£m, 2021 prices)	Net Employment total (person-years)	Net Employment p.a. (person-years)
Local WSA	5.8	3.8	85	57
Regional WSA (total, including local WSA)	19.9	13.3	281	188
National WSA (total, including regional WSA)	45.5	30.3	642	428

With respect to employment, a total of 85 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 (57 p.a.). The equivalent overall total for the regional WSA is 281 person-years (188 p.a.), and for the national WSA it is 642 person-years (428 p.a.).



It may be noted that the estimated net employment totals for the local WSA are nearly the same as the gross job totals presented on **Table 13.9**. This is because for the local WSA, the jobs lost to leakage and displacement are almost exactly offset by the gains expected due to local multiplier effects.

The predicted duration of the construction phase is 18 months. Therefore, the anticipated additional boost to the local WSA employment total equivalent to 57 jobs annually during the duration of the construction phase if the development is permitted.

In 2021 there were an estimated 46,000 jobs located within the Moray local authority area. The temporary addition of 57 jobs to this total would increase the number of jobs by around 0.12%. The effect on the local employment base is therefore considered to be **Minor** and **Not Significant**.

In terms of output, a net additional annual total of £3.8 million of GVA per annum is predicted to be generated by the development in the local WSA economy during the development, construction, and commissioning phase. The equivalent predicted annual total for the regional WSA is £13.3 million and for the national WSA it is £30.3 million.

As of 2019, the estimated annual value of output generated within the Moray local authority area was approximately £2.28 billion. The temporary augmentation of the local WSA economy by £3.8 million would increase the size of this economy by around 0.16%. The effect on the value of the local WSA economy is therefore considered to be **Minor** and **Not Significant**.

13.6.3.2 Local Area of Influence – Tourism and Recreation

The principal potential impact on receptors beyond the boundaries of the Site is expected to be caused by delivery vehicles on local roads. The proposed route to the Site via the B9016 and any restrictions is assessed in **Chapter 11: Traffic and Transport**. Informal routes utilising the network of forest tracks would be temporarily diverted where construction activities or felling is taking place. Waymarked trails, such as the KT01 Core Path, would be either actively managed or temporarily diverted to ensure continuity of the route. Notices will be placed in prominent locations around the Site with details of any areas with restricted access. Such measures would be agreed in advance, through consultation with the LPA Access Officer, the applicant and recreational groups, in the form of an AMP.

Tourism Effects During Construction

Local businesses, such as food and drink businesses and, to a lesser extent due to the location, accommodation businesses, may experience beneficial impacts during construction due to use by construction workers. The level of effect may be high for individual businesses, and as the sensitivity of these receptors is low the effect would be **Moderate** which may be **Significant** (beneficial).

Each of the tourism assets are considered to be beyond significant effects related to the proposed development, both in terms of topography and distance, resulting in negligible magnitudes of impact. For the worst-case scenario, whereby construction traffic temporarily impacts the access of the assets or visuals of the construction en-route to the assets degrades the experience, the level of effect would be **Minor**, with the temporary and intermittent nature of the impact considered to result in a level of effect that is **Not Significant**.

Bow Fiddle Rock is located off the coast of Portknockie and is not publicly accessible, with its draw for tourists predominantly being the surrounding ecology and a scenic viewpoint. This receptor is enjoyed visually and is located seaward, north of the proposed development, resulting in **No Effect**.

Recreational Effects During Construction

Spey Bay is of regional importance and medium sensitivity as it is a coastal reserve whereas the other beaches can be classed as local importance and low sensitivity.

The 'formal' recreational assets, Buckie Swimming Pool, Fitness Centre, Buckpool Golf Club and Keith Golf Course, are considered to be of a distance to be relatively unimpacted by the proposed



development, representing a worst-case scenario of a negligible magnitude of impact, therefore, the low sensitivity of the receptors would result in a **Minor** and **Not Significant** level of effect.

The National Cycle Network (NCN) and the long-distance routes, The Moray Coastal Trail and The Speyside Way, are unlikely to experience any impacts due to their distance from the Site. It is considered that cyclists and walkers would be more able to traverse any obstructions, with any obstructions likely to be very temporary in nature and assessed in **Chapter 11: Traffic and Transport**.

Taking account of the above, the magnitude of change is considered to be negligible. As the sensitivity of the receptor is high, the level of effect would be **Minor** in a worst-case scenario, with the temporary and intermittent nature of the impact considered to result in a level of effect that is **Not Significant**.

For recreational activities, the KT01 Core Path, Buckie Fishwives Path Heritage Path and the GM/GM11/1 RoW (as others are considered to be of a distance and direction that would render them unimpacted by the proposed development) are considered to be of Low to Medium sensitivity. As these are three designations for the same path, they will be assessed under the higher sensitivity of the Heritage Path, Medium. Although not the same path, further unrecorded RoWs and forestry tracks used for recreation would also be considered under this level of sensitivity and receptor as they would be impacted in the same way.

The Heritage Path will be physically impacted by the proposed development, likely resulting in diversions and/or closures. The development of, and adherence to, a detailed AMP would reduce this impact by specifying agreements for the announcement of any impacts, the plans and processes in place to continue the usage of the paths, and signage used at access points to map out the routes affected and where any potential diversion would be implemented, as well as the length of time they would be affected and contact details of the relevant construction manager. The provision of gates which allow for the restriction of vehicular transport whilst allowing for the continual access of recreational users would be described within the AMP, reducing pedestrian – vehicle conflict and increasing the safety of the users. **TA 2.3 Outline Access Management Plan** drafts the details of any potential enhancements and/or linkages to be developed further in the Access Management Plan (AMP). Recreationally, with plans in place, the amenity of the usage would be reduced, however, the recreational quality of the routes would be impacted to a lesser degree, resulting in an overall Minor magnitude of impact. This would result in a **Minor** and **Not Significant** level of effect.

The beaches are considered to be low sensitivity receptors, and would remain relatively unimpacted by the proposed development, resulting in a negligible magnitude of impact and a **Negligible** and **Not Significant** level of effect.

13.6.4 Operational Effects

Operational effects are addressed in turn with regard to the WSA and the LAI.

13.6.4.1 Wider Study Area – Socio-Economics

Socio-economic effects at the operational phase of the proposed development consider employment at the local level of the WSA. Employment at a wider spatial scale is not expected.

Employment Effects During Operation

Once operational, a permanent workforce would be required to operate and maintain the proposed development. Based on experience of proposed and completed onshore wind farm projects of a comparable size and in similar locations elsewhere in Scotland, it is estimated that there are likely to be between four and seven permanent direct jobs created by the proposed development during its operational phase.

As with the direct impacts on employment during the construction phase 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 area and elsewhere in 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, including waste management and recycling;
- onsite forestry and ecology management;
- vegetation management along access roads and tracks;
- maintenance and repair for access roads, ditches, road furniture and gate repair, etc.;
- maintenance of fencing;
- plant and equipment hire;
- supply of consumable items (e.g., fuels, lubricants and oils, spare parts, etc.);
- statutory turbine inspections; and
- catering for meetings and visits.

In addition to those listed, local shops, cafes, accommodation providers and hotels often experience an increase in business during the operational phase from visitors to the Site (e.g., as a result of extra technicians being needed onsite during wind farm maintenance and servicing). On a previous project, the applicant developed an accommodation providers survey so that those coming to work at the Site could be connected to accommodation providers who have already been consulted and expressed a desire to host them; maximising the opportunity to capture funding in the local economy.

Overall, based on experience with similar projects elsewhere in various parts of Scotland, it is expected that there are likely to be between 16 and 20 indirect jobs created by operational and maintenance supply chain effects associated with the proposed development, within the local WSA.

Therefore, in terms of the overall potential for operational phase job creation from the combined direct and supply chain effects, the overall total number of gross full-time equivalent jobs that could be created in the Moray area is estimated to amount to between 20 and 27 gross permanent jobs (i.e., between four and seven direct jobs, plus between 16 and 20 indirect jobs).

The applicant takes an approach to letting contracts that encourages local employment within the construction and operational phases of a project and are already developing relations with local skills and employment networks to help harness local talent into the proposed development. Alongside this, we ensure that the requirement to employ local people is a key component of letting contracts for suppliers working on the proposed development. Taking this approach has resulted in ensuring the local economic benefits from the employment opportunities on our most recently completed windfarm, shown on **Figure 13.10**.



Figure 13.10: Economic Impacts of Previous Development

When the various additionality factors (set out in **Section 13.4.2.4**) are taken into account, the effect would be expected to lie in the range of 19-26 net additional jobs.



Given that there are estimated to be 46,000 jobs located in the Moray area (as of 2021), this stimulus to net local job creation would be expected to increase the size of the local WSA employment base by between 0.04% and 0.06%. Although beneficial, this effect is assessed to be **Negligible** and, therefore, **Not Significant**.

13.6.4.2 Local Area of Influence – Tourism and Recreation

During the operational phase there are expected to be both adverse effects due to visual impacts on tourism receptors, detailed in **Chapter 6: Landscape and Visual**, and beneficial effects arising from the legacy of the enhanced routes within the Site.

No significant effects are expected due to maintenance vehicles using the access road and Site as this would be on an occasional basis.

Tourism Effects During Operation

During operation, the patronage of local businesses would be markedly lower than that of the construction phase, resulting in **No Effect**. The impacts on tourism assets would also range from **No Effect** for those which are located indoors, to **Negligible** for others which are outdoors, however, they are located a greater distance away than would normally be expected to result in an impact.

Recreational Effects During Operation

The 'formal' recreational facilities, long-distance routes and beaches are each considered to be of a great enough distance from the proposed development to result in **No Effect**.

Visual effects on recreational receptors are assessed in **Chapter 6: Landscape and Visual**, 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.

The landscape and visual assessment found that the residual impact on the GM/GM11/1 RoW, KT01 Core Path and Buckie Fishwives Path Heritage Path (all of which follow the same path) would be considered a Major/Moderate (adverse) effect when considering the proximity of where the turbines would be visible from.

For the Socio-Economic, Tourism, Recreation and Land Use assessment this is considered in respect of a loss of amenity, however, the mitigations offered through an AMP, such as signage promoting access and linkages with other routes, would result in a recreational benefit. The combination of both impacts results in a **Minor** magnitude of impacts to the Medium sensitivity receptors, which is considered to be a **Minor** and **Not Significant** level of effect.

Community Benefits

The applicant is committed to working with the community to explore the potential of shared ownership of the proposed development, which is offered by the applicant on all of their onshore wind projects. Shared ownership could allow financial capital to be directly invested into improving the local area, possibly through community enhancements or improving skills and training, which could have a lasting benefit beyond the lifespan of the proposed development.

The applicant would also provide community benefit in line with the prevailing Scottish Government guidance which is '*to continue at a national level to promote community benefits of the value equivalent to £5,000 per installed megawatt per annum, index linked for the operational lifetime of the project.*' Based on the 105.6 MW proposed development this could provide a community benefit fund of around £528,000 each year to the local community. This could amount to around £18.4 million over the 35-year operational life of the proposed development.:

Turbine numbers and technology can change, with the final figure to be confirmed when (and if) the proposed development receives planning consent. More information can be found in the Scottish Government's 'Good Practice Principles for Community Benefits from Onshore Renewable Energy



Developments' (Scottish Government, 2019a) and in Vattenfall's 'Investing in Communities'⁴ Community Benefit Guide for Onshore Wind Farms.

Although the community benefits would be considered as a benefit of the wider project, it is noted that they would not be considered mitigation and have not been factored into the assessment.

13.6.5 Decommissioning Effects

In general, the scale and type of effects during the decommissioning stage would be expected to be similar to those anticipated to occur during the construction stage, but to a lesser degree. As the end of the development life would likely be up to 35 years from the date of the beginning of operation, it is recognised that standard industry practice, rules and legislation will change over this time, meaning that no descriptive decommissioning plans or policies can be prepared at this stage. The detail and scope of decommissioning works will be determined by the relevant legislation and guidance at the time of decommissioning and will be agreed with the regulator with decommissioning plan provided.

On the basis that the magnitude of impact for all effects considered will mirror (but is likely to be lower than) the magnitude relating to the construction phase, and that the sensitivity of each receptor is assumed not to change, no significant effects have been identified.

13.7 Assessment of Cumulative Effects

The cumulative impacts from other neighbouring wind farms would differ at the construction and operational phases for socio-economics.

There is potential for cumulative effects to arise leading to competition for materials, workers, accommodation and further supply chain products in relation to the construction of other prospective or consented projects, including the Hill of Towie II, Rothes III, Lurg Hill, Clashindarroch II and Clashindarroch Extension, as described in **Chapter 2: Proposed Development Description**, which have the potential to overlap with the construction phases of the proposed development due to timings with their respective grid connections.

Due to the proposed development being on the mainland of Scotland, within a relative driving distance of 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 region, along with nearby local authorities, would mean that it is reasonable to assume that there is a readily available workforce who can construct these developments. The location of the proposed development and cumulative developments within proximity of coastal areas and cities means that a ready supply of accommodation venues would not be as required for the duration of the work.

Effects could also be experienced on local roads used by tourists if construction traffic were to use the routes proposed for the cumulative developments. The impacts on roads are assessed further in **Chapter 11: Traffic and Transport**.

There would be additional beneficial impacts during construction on the local supply chain due to the patronage of local food and drinks venues and further local businesses which can assist with any stage of the construction etc., which would see a considerable increase in business during the construction phase of the proposed development.

During operation, there are no cumulative developments of a large enough scale within the LAI to give rise to potential cumulative visual effects on the amenity in the nearby recreational and tourism assets.

In terms of cumulative operational effects on employment – these are not expected due to the low numbers of operational staff involved and further materials related to the direct and in-direct supply chains also being low, therefore no other operational cumulative effects are expected.

⁴ <https://group.vattenfall.com/uk/contentassets/dd250005c9654fe2b096c511452b416a/cbf.pdf>



13.8 Summary

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.

The assessment concludes that no necessary specific mitigation has been identified regarding the economic assessment to be required and therefore residual effects of the proposed development are effectively the same as the predicted effects. Predicted adverse effects have been assessed as not significant; predicted beneficial effects have been assessed as negligible with regard to effects on the local tourism economy during the construction phase.

With regard to local recreational and tourism assets, no significant adverse effects have been identified.

There are no LSEs associated with the proposed development, with the full list of effects summarised in **Table 13.11**.

Table 13.11: Summary of Residual Effects

Likely Significant Effect	Mitigation Measures	Means of Implementation	Residual Effect
Construction employment	None	N/A	Minor (beneficial)
Construction GVA	None	N/A	Minor (beneficial)
Individual businesses during construction	None	N/A	Minor (beneficial)
Tourism assets during construction	None	N/A	Minor (adverse)
Formal recreational assets during construction	None	N/A	Minor (adverse)
NCN/Long-distance routes during construction	None	N/A	Minor (adverse)
Local paths during construction	AMP	Planning Condition	Minor (adverse)
Local beaches during construction	None	N/A	Minor (adverse)
Operational employment	None	N/A	Negligible
Individual businesses during operation	None	N/A	No effect
Tourism assets during operation	None	N/A	No effect
NCN/Long-distance routes during operation	None	N/A	No effect
Local paths during operation	AMP	Planning Condition	Minor (adverse)
Decommissioning	AMP	Planning Condition	Minor (adverse)

13.9 References

Aitchison, C. (2012). Tourism Impact of Wind Farms: Submitted to Renewables Inquiry Scottish Government. Edinburgh: The University of Edinburgh. Available at: [Aitchison_C_WindFarms_2012.pdf \(ed.ac.uk\)](#) [Accessed: September 2023]



BiGGAR Economics (2020). Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms. Penicuik: Biggar. Available at: [Microsoft Word - BiGGAR Economics Wind Farms and Tourism 2021.docx](#) [Accessed: September 2023]

BVG Associates (2017). Economic benefits from onshore windfarms. Available at: <https://bvgassociates.com/wp-content/uploads/2017/09/BVGA-18510-Economic-impact-onshore-wind-report-r3.pdf> [Accessed: October 2023]

Dinnie, E. (2012). The Impact of Wind Farms on Scottish Tourism. Edinburgh: ClimateXChange. Available at: [The Impact of Wind Farms on Scottish Tourism \(climatexchange.org.uk\)](#) [Accessed: September 2023]

HM Treasury (2022). The Green Book. Central Government Guidance on Appraisal and Evaluation. Available at: [The Green Book: appraisal and evaluation in central government - GOV.UK \(www.gov.uk\)](#) [Accessed: September 2023]

Moray Council (2020). Moray Local Development Plan 2020. Available at: moray.gov.uk/downloads/file134782.pdf [Accessed: September 2023]

Moray Council (2023). Facts and Figures. Available at: http://www.moray.gov.uk/moray_standard/page_102693.html [Accessed: September 2023]

National Records of Scotland (NRS) (2020). 2018-based Sub-National Population Projections Scotland, Tables. Available at: [Population Projections for Scottish Areas \(2018-based\) | National Records of Scotland \(nrscotland.gov.uk\)](#) [Accessed: September 2023]

National Records of Scotland (NRS) (2022a) Population Estimates Time Series Data. Available at: [Population Estimates Time Series Data | National Records of Scotland \(nrscotland.gov.uk\)](#) [Accessed: September 2023]

National Records of Scotland (NRS) (2022b). 91% of Scotland's population live in 2% of its land area. Available at: <https://www.nrscotland.gov.uk/news/2022/91-percent-of-scotlands-population-live-in-2-percent-of-its-land-area> [Accessed: September 2023]

ONS (2019). Principal projection - Great Britain population in age groups. 2018-based National Population Projections. Available at: [Principal projection - Great Britain population in age groups - Office for National Statistics \(ons.gov.uk\)](#) [Accessed: September 2023]

ONS (2022a). Input-output supply and use tables. Available at: [Input-output supply and use tables - Office for National Statistics \(ons.gov.uk\)](#) [Accessed: September 2023]

ONS (2022b). Population estimates – local authority based by five year age band. Available at: [Population estimates - local authority based by five year age band - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](#) [Accessed: September 2023]

ONS (2022c). Business Register and Employment Survey. Available at: [Business Register and Employment Survey - Office for National Statistics \(ons.gov.uk\)](#) [Accessed: September 2023]

ONS (2023a). Annual Business Survey (ABS). Available at: [Annual Business Survey \(ABS\) - Office for National Statistics \(ons.gov.uk\)](#) [Accessed: September 2023]

ONS (2023b). Annual Population Survey. Available at: [annual population survey - Nomis - Official Census and Labour Market Statistics \(nomisweb.co.uk\)](#) [Accessed: September 2023]

ONS (2023c). Annual Survey of Hours and Earnings (ASHE). Available at: [Annual Survey of Hours and Earnings \(ASHE\) - Office for National Statistics \(ons.gov.uk\)](#) [Accessed: September 2023]

Scottish Government (2019a). Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments. Available at: https://consult.gov.scot/energy-and-climate-change-directorate/onshore-renewable-energy-developments/user_uploads/community-benefits-onshore-revised-gpp.pdf [Accessed: November 2023]

Scottish Government (2019b). Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments. Available at: <https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and->



[guidance/2019/05/scottish-government-good-practice-principles-shared-ownership-onshore-renewable-energy-developments/documents/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/govscot%3Adocument/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments.pdf](https://www.gov.scot/publications/guidance/2019/05/scottish-government-good-practice-principles-shared-ownership-onshore-renewable-energy-developments/documents/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/govscot%3Adocument/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments.pdf) [Accessed: November 2023]

Scottish Government (2022a). Onshore Wind Policy Statement. December 2022. Available at: [Chapter 4: Benefits to Local Communities and Financial Mechanisms - Onshore wind: policy statement 2022 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/chapter-4-benefits-to-local-communities-and-financial-mechanisms-onshore-wind-policy-statement-2022-gov.scot/www.gov.scot) [Accessed: October 2023]

Scottish Government (2022b). Scotland's National Strategy for Economic Transformation. Available at: [Scotland's National Strategy for Economic Transformation - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/scotland-s-national-strategy-for-economic-transformation-gov.scot/www.gov.scot) [Accessed: October 2023]

Scottish Government (2022c). Supply, Use and Input-Output Tables: 1998-2019. Available at: [Supply, Use and Input-Output Tables: 1998-2019 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/supply-use-and-input-output-tables-1998-2019-gov.scot/www.gov.scot) [Accessed: September 2023]

Scottish Government (2023a). National Planning Framework 4. Available at: [National Planning Framework 4 \(www.gov.scot\)](https://www.gov.scot/publications/national-planning-framework-4/www.gov.scot) [Accessed: September 2023]

Scottish Government (2023b). Onshore Wind Sector Deal for Scotland. Available at: <https://www.gov.scot/publications/onshore-wind-sector-deal-scotland/> [Accessed: October 2023]

Scottish Government (2023c). Scottish Annual Business Statistics 2021. Available at: [Headline results - Scottish Annual Business Statistics 2021 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/headline-results-scottish-annual-business-statistics-2021-gov.scot/www.gov.scot) [Accessed: September 2023]

Scottish Natural Heritage (2018). Environmental Impact Assessment Handbook – Version 5: Guidance for competent authorities, consultation bodies, and others involved in the Environmental Impact Assessment process in Scotland

Scottish Renewables, SNH, SEPA, Forestry Commission (Scotland), Historic Scotland (2019). Good Practice During Windfarm Construction (4th Edition).

Scotways (2023). Heritage Paths. Available at: <https://scotways.com/heritage-paths/> [Accessed: September 2023]

Strava (2023). Global Heatmap. Available at: <https://www.strava.com/heatmap> [Accessed: September 2023]

VisitScotland (2020) Insight Department: Grampian Factsheet 2019 (Aberdeen City, Aberdeenshire & Moray). Available at: <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/factsheets/grampian-factsheet.pdf> [Accessed: September 2023]

Vivid Economics (2019). Quantifying Benefits of Onshore Wind to the UK. RenewableUK. Available at: https://www.vivideconomics.com/wp-content/uploads/2019/08/Quantifying_the_Benefits_of-report-.pdf [Accessed: October 2023]

