

## 13 SOCIO-ECONOMICS AND TOURISM

### 13.1 Introduction

13.1.1 This chapter of the Environmental Appraisal assesses the potential effects on socio-economic and tourism receptors associated with the construction, operation and decommissioning phases of the Visual Impact Provision (VIP), Snowdonia Project (hereafter referred to as the Proposed Project).

13.1.2 The potential effects considered in this appraisal are summarised under five subtopics, as follows:

- Tourism: potential effects on tourism attractions and tourism hubs and the wider tourism sector (including the Snowdonia National Park), such as changes in access and/or amenity<sup>1</sup>.
- Recreation: potential effects on recreational receptors such as changes in access and/or amenity. Recreational receptors include public rights of way (PRoW), cycle routes, long distance walking routes (LDWR), open access land, nature reserves and marine-related leisure activities.
- Community amenity: potential amenity effects<sup>2</sup> on community settlements and residents.
- Employment: an overview of the potential direct and indirect employment generation on a local and regional basis.
- Supply chain: expenditure within the local and national supply chain.

13.1.3 In the context of this appraisal, ‘amenity’ is the term used to describe the character or attractiveness of an area. When two or more environmental effects are experienced by the same receptors (e.g. a cycling route), amenity can be affected, with the potential to deter users (e.g. cyclists). The following environmental effects are considered in the amenity appraisal: landscape and visual effects; traffic and transport effects; and noise and vibration effects. Due to these important interactions between environmental effects and socio-economic and tourism receptors, it is recommended that this chapter is read in conjunction with Chapter 6 (Landscape and Visual), Chapter 12 (Traffic and Transport) and Chapter 14 (Noise and Vibration).

13.1.4 Typically, an appraisal of amenity would also consider air quality impacts; however, potential impacts from the Proposed Project on local air quality are considered to be minimal. For this reason, an air quality appraisal was scoped of the Environmental Appraisal. Air quality and dust management measures have been included within the draft Construction Environmental Management Plan (CEMP) where appropriate (see Appendix 2A).

13.1.5 Effects on agricultural land and businesses (including farming practices) are assessed within Chapter 11 (Agriculture and Land Use). Any potential effects on agriculture or land use are minimal, and therefore no consideration of economic impacts on crops and farmland was included in this appraisal.

### 13.2 Scope and Methodology

13.2.1 The ‘*Visual Impact Provision: Snowdonia National Park, Overhead Line 4ZC Screening & Scoping Report October 2018*’<sup>3</sup> was submitted to Gwynedd Council

<sup>1</sup> See paragraph 13.1.3 for a definition of ‘amenity’

<sup>2</sup> See paragraph 13.1.3 for a definition of ‘amenity’

to request a Scoping Opinion in October 2018. The Scoping Report included the proposed scope of the socio-economic and tourism appraisal and the issues that were scoped out.

13.2.2 The following issues were scoped out of the socio-economic and tourism appraisal for construction/decommissioning:

- Change in the incidence of crime, or fear of crime;
- A quantitative assessment of employment and expenditure effects;
- Effects on non-agricultural land take; and
- Effects on Welsh language.

13.2.3 The following issues were scoped out of the socio-economic and tourism appraisal for operation:

- Effects on employment and the supply chain.
- Traffic effects resulting from maintenance and operation works are considered to be minimal during operation (paragraph 12.12.10) and are therefore scoped out. This is in relation to both road traffic and PRoW closures for access.

### **Study Area**

13.2.4 The geographic study areas used in this appraisal are presented in Table 13.1 below and on Figure 13.1.

**Table 13.1: Study Area Descriptions**

Area	Description of Area
Wales	The country of Wales <sup>4</sup> .
Snowdonia National Park	One of three National Parks in Wales and the first to be designated in 1951. It has its own National Park Authority and is home to the highest mountain in Wales, Snowdon (1,085m) (Snowdonia National Park Authority, 2015) <sup>5</sup> .
Gwynedd Council	Located in the north-west of the country, Gwynedd is the second largest of the 22 local government council areas across Wales. Gwynedd Council's largest city is Bangor.
Lower Super Output Areas (LSOA) <sup>6</sup>	The Study Area intersects four LSOAs in Gwynedd Council: Gwynedd 010B, 010C <sup>7</sup> , 013B and 013D (see Figure 13.1).

<sup>3</sup> National Grid (2018) 'Visual Impact Provision: Snowdonia National Park, Overhead Line 4ZC Screening & Scoping Report October 2018'.

<sup>4</sup> National data for this baseline is for 'Wales' alone.

<sup>5</sup> Snowdonia National Park Authority (2015). Snowdonia National Park Management Plan 2010-15 [Online]. Available from: [http://www.nationalparks.gov.uk/eryri2010/snpa\\_mp\\_2010/pageflip.html](http://www.nationalparks.gov.uk/eryri2010/snpa_mp_2010/pageflip.html) [Accessed 12/07/2016].

<sup>6</sup> LSOAs are geographic areas, comprised of around 1,500 residents and 650 households, used for the reporting of small area statistics in England and Wales.

<sup>7</sup> The Study Area only intersects a very small part of this LSOA, which does not include any residential population. It is therefore excluded from the baseline.

Area	Description of Area
Wider Study Area	The Wider Study Area extends to 5km from the 'Area of Search for Permanent and Temporary Works', the maximum extent for permanent and temporary works (see Figure 13.1).
Site Boundary	Boundary of the Proposed Project. Encompasses all the temporary and permanent works.
Study Area	For the purposes of the socio-economic and tourism appraisal, the Study Area includes the 'Area of Search for Permanent and Temporary Works' plus a 500m buffer. The Study Area lies partially within the Snowdonia National Park boundary.

- 13.2.5 Effects on tourism attractions and tourism hubs were considered within the Study Area; however, a Wider Study Area was also applied to tourism receptors in order to capture particularly important tourist attractions/hubs.
- 13.2.6 Effects on recreation were considered within the Study Area only.
- 13.2.7 Amenity effects arise from a combination of the environmental effects: visual, traffic and noise. The Study Area is used to assess amenity effects, while the constituent topic effects considered in the amenity appraisal are defined by the topic specific study areas in Chapter 6 (Landscape and Visual), Chapter 12 (Traffic and Transport) and Chapter 14 (Noise and Vibration).
- 13.2.8 The effects on employment were considered within the LSOAs and Gwynedd Council area.
- 13.2.9 The effects on the supply chain were considered in the context of the regional (Gwynedd Council) and national economy (within Wales).

### **Data Sources**

- 13.2.10 Baseline data was collected using the following key information sources:
- the UK Government's National Planning Policy Framework (NPPF) (Department for Communities and Local Government (2019)<sup>8</sup>;
  - the National Park Management Plan 2010-2015 (Snowdonia National Park Authority, 2015)<sup>9</sup>, Eryri Local Development Plan 2016-2031 (Snowdonia National Park Authority, 2019)<sup>10</sup>, Gwynedd Destination Management Plan

<sup>8</sup> Department for Communities and Local Government, 2019. National Planning Policy Framework. Available online from: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/NPPF\\_Feb\\_2019\\_revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf) [Accessed 29/10/19].

<sup>9</sup> Snowdonia National Park Authority, 2015. Snowdonia National Park Management Plan 2010-15 [Online]. Available from: [http://www.nationalparks.gov.uk/eryri2010/snpa\\_mp\\_2010/pageflip.html](http://www.nationalparks.gov.uk/eryri2010/snpa_mp_2010/pageflip.html) [Accessed 12/07/2016].

<sup>10</sup> Snowdonia National Park Authority, 2019. Eryri Local Development Plan Written Statement. [Online]. Available from: [https://www.snowdonia.gov.wales/\\_data/assets/pdf\\_file/0011/1689041/Cynllun-Datblygu-Lleol-V4.pdf](https://www.snowdonia.gov.wales/_data/assets/pdf_file/0011/1689041/Cynllun-Datblygu-Lleol-V4.pdf) [Accessed 31/10/19].

2013-2020 (Gwynedd Council, 2013)<sup>11</sup>, and the Isle of Anglesey County Council and Gwynedd Joint Local Development Plan (Isle of Anglesey County Council (IACC) and Gwynedd County Council, 2016)<sup>12</sup>;

- organisation websites: Sustrans, North Wales Wildlife Trust, Outdoor North Wales;
- interactive maps: Google Maps, Rowmaps (2017)<sup>13</sup> and Lle (2018)<sup>14</sup>;
- surveys: Gwynedd Visitor Survey (Beaufort Research, 2009)<sup>15</sup>; and
- data from Nomis and the Office for National Statistics (ONS).

13.2.11 A site visit was undertaken on 17-18 April 2018 to verify desk-based baseline data collection.

### ***Methodology***

13.2.12 This section outlines the methods used to determine the baseline context for the appraisal, and appraisal of how the baseline could be affected by the Proposed Project.

13.2.13 Baseline conditions (section 13.5) detail the current state of the socio-economic and tourism context and have been defined through a combination of desk-based research and site visits.

13.2.14 There is no definitive guidance on the appraisal of socio-economic and tourism effects within an Environmental Appraisal, therefore the methodology applied draws on relevant planning policy, available literature, existing best practice and professional judgement.

### ***Determining the Effects***

13.2.15 This appraisal takes a receptor-based approach, and Table 13.2 below identifies receptors considered for each topic and the scale at which the effects may be realised.

**Table 13.2: Subtopics and associated receptors identified in this appraisal**

<b>Subtopic</b>	<b>Receptors</b>	<b>Study Area Context</b>
Tourism	Tourism attractions	Study Area and Wider Study Area
	Tourism hubs (groups of co-located tourism businesses)	

<sup>11</sup> Gwynedd Council, 2013. Gwynedd Destination Management Plan 2013-2020. [Online]. Available from: <https://businesswales.gov.wales/dmwales/sites/dmwales/files/documents/gwynedd-dm-plan.pdf> [Accessed 21/03/18].

<sup>12</sup> Isle of Anglesey County Council and Gwynedd County Council, 2016. [Online]. Available from: <https://www.anglesey.gov.uk/en/Residents/Planning-building-control-and-conservation/Planning-policy/Joint-Local-Development-Plan-Anglesey-and-Gwynedd/Joint-Local-Development-Plan-Anglesey-and-Gwynedd.aspx> [Accessed 20/03/18].

<sup>13</sup> Rowmaps, 2017. Dataset containing the public rights of way of Gwynedd. [Online]. Available from: <http://www.rowmaps.com/datasets/GY/> [Accessed 19/03/18]. Its public sector information released by the council of Gwynedd under the Open Government License.

<sup>14</sup> Lle, 2018. Open Access – Other Statutory Access Land [Online]. Available from: <http://lle.gov.wales/catalogue/item/OpenAccessOtherStatutoryAccessLand?lang=en> [Accessed 19/03/18].

<sup>15</sup> Beaufort Research, 2009. Wales Visitor Survey 2009.

Subtopic	Receptors	Study Area Context
	Tourism sector in Gwynedd and Snowdonia National Park	
Recreation	PRoW and cycle routes	Study Area
	Long Distance Walking Routes (LDWR)	
	Open access land and nature reserves	
	Marine-related leisure activities	
Community Amenity	Community settlements and residents	Study Area
Employment	Employment market (direct and indirect employment generation)	Local: LSOA Regional: Gwynedd County Council
Supply chain and businesses	The economy (expenditure in the supply chain)	Regional: Gwynedd County Council National: Wales

13.2.16 The relative value and importance of these receptors considers the type of receptor, the availability of alternatives and the nature of users (e.g. sensitive groups such as children and the elderly). Receptors with users from sensitive groups have a relatively higher value than those without. The relative value and importance of these receptors are then considered in the context of potential changes associated with the Proposed Project, and effects are defined as temporary/permanent, direct/indirect, and/or adverse/beneficial.

13.2.17 Topic specific methodologies are explained in further detail in section 13.7, Predicted Effects.

### 13.3 Consultation Undertaken

13.3.1 The information and advice received during the scoping process with regards to the socio-economic and tourism appraisal is summarised in Table 13.3 below.

13.3.2 The details of consultation undertaken for the Proposed Project is outlined in Chapter 4 (Consultation).

**Table 13.3: Consultation Responses**

Date	Consultee	Summary of Issues	Section where comment addressed
15/02/2019	Gwynedd Council Planning Manager (Cara Owen)	The LPA is satisfied with the contents of this chapter and the mitigation measures proposed and considers that the overall impact of the proposal will visually improve the area for Tourism.	No response required

### 13.4 Statutory and Planning Context

#### *Legislation*

13.4.1 The Snowdonia National Park is designated under the National Parks and Access to the Countryside Act 1949. The purpose of the designation of National Parks is to conserve and enhance their natural beauty, wildlife and cultural heritage; and

promote public understanding and enjoyment of their special qualities. In case of an irreconcilable conflict, priority is given to the first purpose of conservation.

- 13.4.2 The Countryside and Rights of Way Act 2000 (CRoW) amends the law relating to PRoW access and makes provision for public access to the countryside. It emphasises the rights of the public to use open access land for recreational purposes (Natural England, 2014)<sup>16</sup>.

### ***National and Regional Planning and Policy Context***

- 13.4.3 The National Planning Policy Framework (NPPF) provides the overarching framework which regional and local plans must incorporate in their approach to development. The NPPF states that all plans should be based upon and reflect the presumption in favour of sustainable development. Within the NPPF there are also several socio-economic and tourism objectives relevant to the Proposed Project (Department for Communities and Local Government, 2019)<sup>17</sup>, including supporting a prosperous rural economy, and building a strong, competitive economy.
- 13.4.4 The Snowdonia National Park Management Plan provides the strategic policy framework for the National Park and a specific action plan. The National Park Management Plan 2010-2015 for Snowdonia states that 'pressures such as climate change, some inappropriate recreational activities, some modern land management techniques and inappropriate infrastructure, such as high voltage power lines, are altering the landscape at a rate which could irreversibly damage its notable characteristics' (Snowdonia National Park Authority, 2015)<sup>18</sup>.
- 13.4.5 The Eryri Local Development Plan 2016-2031 (Snowdonia National Park Authority, 2019)<sup>19</sup> aims to reflect the land use implications of the National Park Management Plan and provide the opportunity to deliver the spatial elements of other plans and strategies at the national, regional and local level, in order to deliver the long-term vision for Snowdonia National Park.
- 13.4.6 The Snowdonia Local Development Plan includes the following commitments:
- Protect and evolve the landscape;
  - Safeguard and enhance the rich and varied natural environment; and
  - Provide social, economic and well-being benefits nationally and internationally.

<sup>16</sup> Natural England, 2014. Open access land: management, rights and responsibilities. [Online]. Available from: <https://www.gov.uk/guidance/open-access-land-management-rights-and-responsibilities> [Accessed 27/03/18].

<sup>17</sup> Department for Communities and Local Government, 2019. National Planning Policy Framework. Available online from: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/NPPF\\_Feb\\_2019\\_revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf) [Accessed 29/10/19].

<sup>18</sup> Snowdonia National Park Authority, 2015. Snowdonia National Park Management Plan 2010-15 [Online]. Available from: [http://www.nationalparks.gov.uk/eryri2010/snpa\\_mp\\_2010/pageflip.html](http://www.nationalparks.gov.uk/eryri2010/snpa_mp_2010/pageflip.html) [Accessed 12/07/2016].

<sup>19</sup> Snowdonia National Park Authority, 2019. Eryri Local Development Plan Written Statement. [Online]. Available from: [https://www.snowdonia.gov.wales/\\_data/assets/pdf\\_file/0011/1689041/Cynllun-Datblygu-Lleol-V4.pdf](https://www.snowdonia.gov.wales/_data/assets/pdf_file/0011/1689041/Cynllun-Datblygu-Lleol-V4.pdf) [Accessed 31/10/19].

### **Local Planning and Policy Context**

- 13.4.7 Gwynedd Council worked with the Isle of Anglesey County Council (IACC) to produce a Joint Local Development Plan (IACC and Gwynedd County Council, 2016)<sup>20</sup>. The Plan provides a land use framework that supports the Single Integrated Plan and Strategic Plans for both Councils. Its vision is to ‘*strengthen communities in Gwynedd and Anglesey*’.
- 13.4.8 According to the Joint Local Development Plan, major development within a National Park would have to satisfy the following:
- The need for the development in terms of national considerations, and the impact of permitting it or refusing it upon the local economy.
  - The cost and scope for providing the development outside the designated area or meeting the need for it in some other way; any detrimental effects on the environment and the landscape, and the extent to which that could be moderated.

## **13.5 Existing Environment**

### **Population Overview**

- 13.5.1 According to mid-year population estimates, the population of Gwynedd was approximately 124,200 in 2018 (ONS, 2019)<sup>21</sup>. In the three LSOAs identified within the Study Area, the mid-year 2018 population was around 4,400 (ONS, 2019)<sup>22</sup>, and population density of 1.0 person per hectare across the LSOAs reflects the rural nature of the landscape (Nomis, 2013a)<sup>23</sup>. The population density in Wales is 1.5 persons per hectare.
- 13.5.2 The three LSOAs that are within the Study Area have relatively low deprivation, as determined by the Welsh Index of Multiple Deprivation (Welsh Government, 2014)<sup>24</sup>, falling within the 6<sup>th</sup> and 7<sup>th</sup> decile of multiple deprivations for all LSOAs in Wales in 2014 (with the 1<sup>st</sup> decile being most deprived and the 10<sup>th</sup> decile being least deprived).

### *Community Settlements*

- 13.5.3 Within the Study Area there are two community settlements where most of the local population resides – Penrhyndeudraeth and Minffordd. According to the

<sup>20</sup> Isle of Anglesey County Council and Gwynedd County Council, 2016. [Online]. Available from: <http://www.anglesey.gov.uk/planning-and-waste/planning-policy/joint-local-development-plan-anglesey-and-gwynedd/> [Accessed 20/03/18].

<sup>21</sup> ONS, 2019. Mid-year Population Estimates. [Online]. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimates> [Accessed 31/10/19].

<sup>22</sup> ONS, 2019. Mid-year Population Estimates. [Online]. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimates> [Accessed 31/10/19].

<sup>23</sup> Nomis, 2013a. QS102EW – Population density. [Online]. Available from: <https://www.nomisweb.co.uk/query/construct/summary.asp?mode=construct&version=0&dataset=143> [Accessed 31/10/19].

<sup>24</sup> Welsh Government, 2014. Welsh Index of Multiple Deprivation 2014. [Online]. Available from: <http://gov.wales/statistics-and-research/welsh-index-multiple-deprivation/?lang=en> [Accessed 12/03/18].

2011 Census, the population of Penrhyndeudraeth Parish (which includes Minffordd and Portmeirion) was 2,150 (Nomis, 2013b)<sup>25</sup>. The community has several facilities, including a primary school, train station, post office and library. Minffordd is a much smaller residential area, with its key facilities being Minffordd Train Station and a quarry. There are several commercial businesses within the Study Area, with the greatest concentration of businesses within Penrhyndeudraeth.

### ***Employment and Economy***

#### *Employment*

- 13.5.4 Approximately 64% of people living in the three Study Area LSOAs were employed in 2011, compared with 65.2% in Gwynedd and 65.8% across Wales. As stated in paragraph 13.5.7, this is largely due to an ageing population, as opposed to a large proportion actively seeking employment.
- 13.5.5 According to the 2011 Census, the largest industry for employment in the LSOAs was Wholesale and retail trade (15.1%) (Nomis, 2013c)<sup>26</sup>. In 2011, the Accommodation and food service activities sector accounted for almost 12% of employment across the LSOAs in the Study Area, much higher than in Gwynedd (9.8%) and in Wales as a whole (6.2%). This suggests the area is reliant on tourism. Around 10% of employment in the LSOAs was in the construction sector in 2011, broadly in line with Gwynedd (9.6%) but higher than the national average (8.2%).

#### *Economic Activity*

- 13.5.6 The economic activity rate measures the proportion of the working age population (aged between 16 and 74) who are active or potentially active members of the labour market.
- 13.5.7 For the Study Area LSOAs, the economic activity rate was 64.4% in 2011, slightly lower than for Gwynedd as a whole (65.2%) and for Wales (65.8%) (Nomis, 2013d)<sup>27</sup>. However, the LSOAs within the Study Area have a higher proportion of the population who are retired (21.3%), compared with 16.4% in Gwynedd and 16.1% in Wales.
- 13.5.8 The number of residents claiming Job Seekers Allowance (JSA) and National Insurance credits is a commonly used proxy indicator for employment levels. JSA is payable to people under pensionable age who are available for, and actively seeking, work of at least 40 hours a week. As of September 2019, 35 people were claiming JSA across the three LSOAs in the Study Area (Nomis, 2019)<sup>28</sup>.

<sup>25</sup> Nomis, 2013b. Local Area Report for areas in England and Wales. [Online]. Available from: <https://www.nomisweb.co.uk/reports/localarea?compare=W04000094> [Accessed 31/10/19].

<sup>26</sup> Nomis, 2013c. 2011 Census, KS605EW to KS607EW – Industry by sex. [Online]. Available from: <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=75> [Accessed 31/10/19].

<sup>27</sup> Nomis, 2013d. 2011 Census, KS601EW to KS603EW – Economic Activity by sex. [Online]. Available from: <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=75> [Accessed 31/10/19].

<sup>28</sup> Nomis, 2019. Claimant count by sex and age – September 2019. [Online]. Available from: <https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=72> [Accessed 01/11/19].



*Economy*

- 13.5.9 In 2017, Gwynedd Council had a Gross Value Added (GVA) per head of £19,789, broadly in line with the national average (ONS, 2018)<sup>29</sup>. GVA per head in Gwynedd has largely been above the national average since 2002.
- 13.5.10 Snowdonia National Park is central to the local economy in and around the Study Area. Tourism is the largest employer in the National Park, generating close to 7,000 full-time equivalent jobs (FTEs) in 2015, although this has decreased since 2010 (Snowdonia National Park Authority, 2015b)<sup>30</sup>.

*Tourism*

- 13.5.11 In 2015, day visitors to Gwynedd totalled 3.6 million, equivalent to 5.5% of the total day visitors to Wales. Total visitor numbers in Gwynedd, including day visitors, those staying in local accommodation and those staying with friends and relatives, made up 8% of the total visitors to Wales in 2015 (Global Tourism Solutions, 2016)<sup>31</sup>.
- 13.5.12 The Gwynedd tourism sector supported 15,243 FTE jobs in 2015, and Gwynedd contributed the largest share of tourism employment (13.8%) amongst the local authorities in Wales. Of this, 82% FTE jobs were through direct employment, with 37% in tourist accommodation, 26% in food and drink, and 25% in shopping (Moffat Centre, 2018)<sup>32</sup>. The remaining 18% FTE jobs were supported in the supply chain.

*Tourist Attractions*

- 13.5.13 There are no specific tourist attractions within the Study Area, apart from the land within the National Park, which is addressed below under open access land. A Wider Study Area was created to capture effects on tourist attractions that may be regionally or nationally important. Of the seven tourist attractions in the Wider Study Area (see Table 13.4), two attractions were identified as regionally important and likely to attract visitors from elsewhere in the UK or further afield; these are the village of Portmeirion, and the Ffestiniog and Welsh Highland Railways.
- 13.5.14 The village of Portmeirion is located to the west of the Dwyryd Estuary, south-east of Penrhyndeudraeth. The village was designed and built between 1925 and 1976 by Sir Clough Williams-Ellis on his own land in the style of an Italian village, and it has a mixture of shops, gardens and accommodation (Portmeirion Ltd, 2008)<sup>33</sup>. Portmeirion has seen a 4% increase in visitor numbers from 203,301 to 211,000

<sup>29</sup> ONS, 2018. Regional gross value added (income approach). [Online]. Available from: <https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/regionalgrossvalueaddedincomeapproach> [Accessed 31/10/19]

<sup>30</sup> Snowdonia National Park Authority (2015b). Employment in Tourism and Recreation. [Online]. Available from: <http://www.snowdonia.gov.wales/looking-after/state-of-the-park/tourism/employment?name=> [Accessed 08/05/18].

<sup>31</sup> Global Tourism Solutions (GTS), 2016. Requested STEAM model tourism economic impact data, prepared by Cathy James, GTS (UK) Ltd, November 2016. STEAM model available from: <http://www.globaltourismsolutions.co.uk/steam-model>.

<sup>32</sup> Moffat Centre Personal Correspondence, 2018.

<sup>33</sup> Portmeirion Ltd, 2018. Portmeirion website, [Online]. Available from: <https://www.portmeirion-village.com/> [Accessed 21/03/18]

between 2014 and 2017 (Moffat Centre, 2018)<sup>34</sup>. The annual Festival Number 6 in Portmeirion (which ceased in 2018) also attracted an additional 15,000 visitors to the village in July of each year, and approximately 1,400 visitors attend the annual Prisoner Convention which is held at or around Easter each year<sup>35</sup>.

- 13.5.15 The terminus for the Ffestiniog and Welsh Highland Railways is Porthmadog Harbour railway station, in Porthmadog in the west of the Wider Study Area. The Ffestiniog Railway, the oldest railway in the world, runs 13.5 miles from Porthmadog to Blaenau Ffestiniog, while the Welsh Highland Railway runs from Porthmadog through Snowdonia National Park to Caernarfon, a journey of 25 miles. In 2010, the Ffestiniog Railway attracted 129,026 visitors and the Welsh Highland Railway attracted 64,082 visitors (Welsh Government, 2011)<sup>36</sup>.

---

<sup>34</sup> Moffat Centre, 2018. Personal Correspondence.

<sup>35</sup> Moffat Centre, 2018. Personal Correspondence.

<sup>36</sup> Welsh Government, 2011. Visits to Tourist Attractions in Wales 2010. [Online]. Available from: <https://gov.wales/sites/default/files/statistics-and-research/2019-05/visits-tourist-attractions-2010.pdf> [Accessed 31/10/19].

**Table 13.4: Tourist Attractions in the Wider Study Area**

<b>Name</b>	<b>Description</b>	<b>Location in the Wider Study Area</b>
Portmeirion	Tourist village with accommodation, shops and gardens.	Centre of the Wider Study Area, just outside the Study Area.
Ffestiniog Railway	Ffestiniog Railway is the oldest narrow gauge railway in the world, which runs for 13.5 miles from Porthmadog to Blaenau Ffestiniog.	The terminus for both railways is in the west of the Wider Study Area in Porthmadog.
Welsh Highland Railway	Historic railway which runs for 25 miles from Porthmadog to Caernarfon through Snowdonia National Park	
Welsh Highland Heritage Railway	A short train ride from Porthmadog into Snowdonia National Park and a return via workshops and a museum.	The station is on the High Street in Porthmadog in the west of the Wider Study Area.
Maritime Museum	Porthmadog Maritime Museum on the northern shore of Cardigan Bay. The museum had 4,664 visitors in 2015, a 13% increase from 2014 (Welsh Government, 2016) <sup>37</sup> .	In the west of the Wider Study Area in Porthmadog.
Oriel Rob Piercy	Art gallery showing original art work and paintings of Snowdonia, Portmeirion, Wales and more.	In the west of the Wider Study Area in Porthmadog.
Bywyd Gwyllt Glaslyn Wildlife – Osprey Centre	A community-led visitor centre, run by a community interest company set up to protect breeding ospreys in the Glaslyn Valley.	In the north of the Wider Study Area in Prenteg.

#### *Tourism Hubs*

- 13.5.16 There are several tourism businesses within the Study Area; however, the majority lie within the Wider Study Area in Porthmadog and the surrounding communities. Tourism businesses have been grouped under 'Tourism Hubs', as shown on Figure 13.2. Table 13.5 lists the eight tourism hubs within the Wider Study Area and identifies the key accommodation types in each, e.g. hotels, B&Bs and caravan parks.

<sup>37</sup> Welsh Government, 2016. Wales Visitor Attractions Survey 2015. [Online]. Available from: <https://gov.wales/sites/default/files/statistics-and-research/2019-05/visitor-attractions-survey-2015.pdf> [Accessed: 31/10/19].

**Table 13.5: Tourism Hubs**

Name	Description of Accommodation	Location
Penrhyndeudraeth	Consists of B&Bs, self-catered accommodation and a caravan park.	Study Area
Minffordd	Consists of B&Bs and self-catered accommodation.	Study Area
Portmeirion	Consists of a 4-star hotel and self-catered cottages.	Wider Study Area
Porthmadog	Consists of small hotels, B&Bs, self-catered accommodation and a few holiday/caravan parks.	Wider Study Area
Talsarnau	Consists of a couple of large hotels, several B&Bs, a couple of caravan parks and a campsite.	Wider Study Area
Maentwrog	Consists of a couple of hotels, and some self-catered accommodation.	Wider Study Area
Tremadog	Consists of a large hotel, a couple of B&Bs, self-catered accommodation and a campsite.	Wider Study Area
Borth-y-Gest	Consists of several self-catered apartments and cottages.	Wider Study Area

*Visitor Profile and Spend*

- 13.5.17 The number of visitor trips taken in Wales increased at an annual average rate of 0.6% between 2011 and 2018, in contrast to a 0.9% annual average decline in Great Britain over the same period. However, the number of bed nights in Wales decreased at an annual average rate of 0.4% over the same period, broadly in line with the GB figure. There was an increase in visitor expenditure in both Wales and GB between 2011 and 2018, with annual average increases of 1.8% and 1.3%, respectively (Welsh Government, 2019)<sup>38</sup>.
- 13.5.18 In 2015, the tourism industry in Gwynedd, including the Snowdonia National Park, contributed around £964 million to the local economy, a 1% decrease from 2014 (GTS, 2016)<sup>39</sup>. Of the total direct expenditure, the largest share came from Shopping (34%), followed by Food & Drink (25%) and Accommodation (20%).

*Visitor Accommodation near the Proposed Project*

- 13.5.19 Tourism has become a key industry in Gwynedd and it is beginning to evolve away from simple beach holidays to more varied experience-based and activity-filled breaks. Most visitors choose non-serviced accommodation, i.e. caravans (static and touring), self-catering, camping etc. The quality of this tourist accommodation is varied but there is a dominance of mid-market supply in all sectors, and this is the same in the Study Area for this appraisal. The exception being Portmeirion, which combines a range of high-quality self-catering, hotel accommodation and dining with a unique visitor attraction.

<sup>38</sup> Welsh Government, 2019. Great Britain tourist statistics, 2018. [Online]. Available from: <https://gov.wales/sites/default/files/statistics-and-research/2019-10/great-britain-tourist-statistics-2018.pdf> [Accessed 06/11/19].

<sup>39</sup> GTS, 2016. Requested STEAM model tourism economic impact data, prepared by Cathy James, GTS (UK) Ltd, November 2016. STEAM model available from: <http://www.globaltourismsolutions.co.uk/steam-model>

- 13.5.20 Accommodation occupancy rates are not available by local geographical area, but by large regional divisions; i.e. North Wales, South Wales etc. Therefore, data on individual areas and destinations such as Porthmadog, Tremadog and Portmeirion would have to be individually sourced and there is no guarantee that operators would provide potentially commercially sensitive information. Table 13.6 compares the occupancy of different accommodation types between North Wales and Wales as a whole.

**Table 13.6: Accommodation occupancy (Welsh Government, 2018b)<sup>40</sup>**

Accommodation	North Wales		Wales	
	2016	2017	2016	2017
Hotel	67%	67%	67%	67%
Guesthouse/B&B	40%	40%	39%	38%
Self-catering	54%	61%	52%	58%
Hostels	53%	53%	50%	53%

- 13.5.21 All four accommodation types are highly seasonal with peak levels achieved between May and September.
- 13.5.22 In 2015, there were of 6.9 million visitors in Gwynedd, with 78% of staying visitors using non-serviced accommodation, 16% using serviced accommodation and 6% choosing to stay with friends or relatives (GTS, 2016)<sup>41</sup>.

### **Recreation**

#### *Public Rights of Way (PRoW)*

- 13.5.23 There are 44 PRoW within the Study Area, including 33 footpaths, ten bridleways and one restricted byway. Only five of these lie solely within the Site Boundary, the rest are within the Study Area. These PRoW are shown on Figure 12.5.
- 13.5.24 The Wales Coast Path (WCP) also runs through the Study Area (see Figure 12.5).

#### *Cycle Routes*

- 13.5.25 Sections of National Cycle Network routes 8 (NCR8) and NCR82 are located within the Study Area (see Figure 13.3). NCR8 is also known as the Lôn Las Cymru and runs 250 miles from Cardiff to Holyhead. NCR82 runs from Bangor to Fishguard in the south-west of Wales (Sustrans, 2018)<sup>42</sup>.

#### *Long Distance Walking Routes (LDWR)*

- 13.5.26 Within the Study Area there are six long distance walking routes (The Long Distance Walkers Association, 2018<sup>43</sup>). These LDWR are used for walking, running, cycling and horse riding. These are presented in Table 13.7 below.

<sup>40</sup> Welsh Government, 2018b. Wales Tourism Accommodation Occupancy Survey January to December 2017. [Online]. Available from: <https://gov.wales/statistics-and-research/wales-tourism-accommodation-occupancy-surveys/?lang=en> [Accessed 08/05/18].

<sup>41</sup> GTS, 2016. Requested STEAM model tourism economic impact data, prepared by Cathy James, GTS (UK) Ltd, November 2016. STEAM model available from: <http://www.globaltourismsolutions.co.uk/steam-model>

<sup>42</sup> Sustrans, 2018. National Cycle Network [Online]. Available from: <https://osmaps.ordnancesurvey.co.uk/ncn> [Accessed 31/10/19].

<sup>43</sup> The Long Distance Walkers Association, 2018. Long Distance Paths. [Online]. Available from: [https://www.ldwa.org.uk/ldp/public/ldp\\_public\\_home.php](https://www.ldwa.org.uk/ldp/public/ldp_public_home.php) [Accessed 31/10/19].

**Table 13.7: Long Distance Walking Routes**

Name	Description	Use of Cycle Routes and PRow within the Study Area
Wales Coastal Path	This LDWR provides a continuous walking route around the Welsh coast. Within the Study Area, this LDWR runs along the High Street from Minffordd to Penrhyndeudraeth	Footpaths Talsarnau 6, 44 and 52, Penrhyndeudraeth 35, and bridleways Penrhyndeudraeth 36, 38, 39, 44 and Talsarnau 49.
O Fôn I Fynwy	This LDWR is an unofficial walking trail between Holyhead (Anglesey) and Chepstow (Monmouthshire). Within the Study Area, this LDWR runs through Penrhyndeudraeth and through Llandecwyn.	Footpath Talsarnau 52 and bridleway Talsarnau 49.
Mawddach-Ardudwy Trail (Porthmadog Extension)	This LDWR is an extension of the Mawddach Ardudwy Trail. Within the Study Area, the route goes to Porthmadog from Llandecwyn station in the estuary and the Vale of Ffestiniog visiting Maentwrog, Penrhyndeudraeth and the Ffestiniog Railway.	Footpaths Penrhyndeudraeth 35, 53, Talsarnau 6, 44, 52 and bridleway Talsarnau 49.
Taith Ardudwy Way	This LDWR is a well signposted pathway. It runs from Barmouth, outside the Study Area, to Llandecwyn in the east of the Study Area.	Footpath Talsarnau 52 and bridleway Talsarnau 49.
Snowdonia Way	This LDWR runs the full length of Snowdonia National Park, from Machynlleth in the South to Conwy in the North. It is the only long-distance low-level route through Snowdonia. Within the Study Area, it goes through Penrhyndeudraeth over the estuary towards Llandecwyn.	Footpath Talsarnau 52 and bridleway Talsarnau 49.
Meirionnydd Coast Walk	This LDWR follows a similar route to the Wales Coast Path. Within the Study Area, it runs close to Portmeirion, past Penrhyndeudraeth, across the estuary towards Llandecwyn.	Footpaths Penrhyndeudraeth 35, Talsarnau 52, bridleway Penrhyndeudraeth 36, 38, 39, 44 and Talsarnau 49.

*Open Access Land and Nature Reserves*

- 13.5.27 Open access land is land that is publicly accessible according to the Countryside and Rights of Way Act 2000 (CRoW Act). As it is publicly accessible, this type of land is often used for recreational activities such as dog walking. There are two

areas of open access land, both within the Study Area (Lle, 2018)<sup>44</sup>; one lies to the east of Pont Briwet between the river and the A496, which is 28.25 hectares. The other area of open access land lies south of Pont Briwet and runs down the east coast of the River Dwyryd and onto Ynys Griffan island, and is 63 hectares in total.

- 13.5.28 Traeth Glaslyn nature reserve is part of the Glaslyn Marshes Site of Special Scientific Interest (SSSI) and is located on the west side of the Study Area, east of Portmadog. The park is an example of seral succession where the habitat changes from brackish open water, through mudflats, marshes and wet grassland to damp alder carr (North Wales Wildlife Trust, 2018a)<sup>45</sup>. Another nature reserve, Gwaith Powdwr, is located east of Penrhyndeudraeth. The site was once the biggest explosive works in Europe and is now a managed nature reserve offering views of Snowdonia and the Dwyryd Estuary (North Wales Wildlife Trust, 2018b)<sup>46</sup>.
- 13.5.29 The size of these areas of open access land and nature reserves is likely to make them popular places for recreational activities such as walking, dog walking and photography. The areas of open access land and nature reserves are shown on Figure 13.3.

#### *Marine-related leisure activities*

- 13.5.30 The Dwyryd Estuary provides a good location for various water sports and there is a sailing club and a yacht club in Porthmadog, in the west of the Study Area.
- 13.5.31 The River Glaslyn meets the sea at Porthmadog where it is regulated by a system of tidal gates providing a popular area for fishing. There is rich feeding in the lower section, both for sea trout and mullet. In 2015, 27 salmon and 627 sea trout were caught (Glaslyn Angling Association, 2018)<sup>47</sup>.
- 13.5.32 Locations for water sports and fishing are shown on Figure 13.3.

## **13.6 Key Parameters for Appraisal**

### ***The Proposed Project***

- 13.6.1 A detailed description of the Proposed Project is provided in Chapter 2 (Project Description).
- 13.6.2 Construction is expected to commence in 2021 and would take approximately 5-6 years to complete. The key parameters for the assessment of construction effects on socio-economics are:
- the removal of existing infrastructure including the dismantling of 10 pylons and the connecting conductors;

<sup>44</sup> Areas identified from the Lle – Map Browser. Lle, 2018. Open Access – Other Statutory Access Land [Online]. Available from: <http://lle.gov.wales/catalogue/item/OpenAccessOtherStatutoryAccessLand?lang=en> [Accessed 19/03/18].

<sup>45</sup> North Wales Wildlife Trust, 2018a. Traeth Glaslyn. [Online]. Available from: <http://www.northwaleswildlifetrust.org.uk/reserves/traeth-glaslyn> [Accessed 20/03/18].

<sup>46</sup> North Wales Wildlife Trust, 2018b. Gwaith Powdwr. [Online]. Available from: <http://www.northwaleswildlifetrust.org.uk/reserves/gwaith-powdwr> [Accessed 20/03/18].

<sup>47</sup> Glaslyn Angling Association, 2018. About the Glaslyn. [Online]. Available from: <http://www.glaslynanangling.co.uk/#/about-the-glaslyn/4555338415> [Accessed 26/03/18].

- the construction of a new SEC on the eastern side of the estuary near Cilfor to connect the underground connection to the overhead line (OHL);
- the construction of two tunnel head houses to allow access into the shaft;
- the construction of new temporary access tracks and the use of existing tracks and PRow to remove material from the site;
- the construction compounds and use of land for laydown and storage areas during removal of existing infrastructure;
- the construction traffic generation; and
- the construction workforce requirements on site.

### ***Embedded Mitigation***

- 13.6.3 A Construction Environmental Management Plan (CEMP) will be prepared and used to manage environmental impacts to air, noise, land and water from construction operations. This will include a commitment to follow appropriate industry best practice and published guidelines to reduce pollutant and sediment movement. An Outline CEMP is provided in Appendix 2A and the measures contained will be implemented during the construction phase of the Proposed Project.
- 13.6.4 A Construction Traffic Management Plan will be prepared to secure appropriate routing and management of construction traffic. An Outline Construction Traffic Management Plan is provided as an appendix to the CEMP (see Appendix 2A).

## **13.7 Predicted Effects**

- 13.7.1 Typically, the effects arising during operation would be long term, indirect and positive. The picture for construction and decommissioning is more mixed, with potential short-term negative impacts on receptors from noise, traffic and visual effects from construction work, particularly SEC and tunnel construction, and OHL and pylon removal.
- 13.7.2 The predicted impacts during the construction, operation and decommissioning phases of the Proposed Project are described below.

### ***Appraisal of Impacts during Construction***

- 13.7.3 Environmental effects considered within Chapter 6 (Landscape and Visual), Chapter 12 (Traffic and Transport) and Chapter 14 (Noise and Vibration) are considered in combination to assess if there is an overall amenity effect on socio-economic and tourism receptors during construction.
- 13.7.4 Severance effects, identified in Chapter 12 (Traffic and Transport), are considered in the appraisal of effects on access during construction.

### ***Tourism***

- 13.7.5 The effects on tourism are assessed from an access and amenity perspective. The tourism appraisal considers the potential loss of visitors to individual tourism attractions within the Wider Study Area. The appraisal also considers whether disruption at a tourism attraction or within a tourism hub could change visitor perception leading to a change (increase or decrease) in visitor numbers across the local tourism sector as a whole.



### Tourist Attractions

- 13.7.6 There are seven tourist attractions identified within the Wider Study Area. These are shown in Table 13.4 and Figure 13.2. No data is available on visitor numbers to these locations with the exception of Portmeirion Village (211,000 visitors in 2011, paragraph 13.5.14).
- 13.7.7 Five of the tourist attractions within the Wider Study Area are located close to links identified as being used by construction traffic in order to access the Proposed Project (Table 12.5). The relevant links have been assessed as having a low or very low magnitude for severance (Table 12.12) and therefore the severance effects on tourist attractions are expected to be minimal.
- 13.7.8 As the tourist attractions are not within the Study Area, they are not expected to experience any noise impacts.
- 13.7.9 As stated in Chapter 6, there are expected to be some landscape and visual effects for tourists travelling on the Ffestiniog Railway, the Welsh Highland Railway and the Welsh Highland Heritage Railway during construction; however, these would largely be short term, temporary and reversible.
- 13.7.10 There are no environmental effects that combine to create an overall amenity effect on tourist attractions during construction.

### Tourism Hubs

- 13.7.11 There are two tourism hubs within the Study Area and six within the Wider Study Area (Table 13.5).
- 13.7.12 A number of links identified as being used by construction traffic in order to access the Proposed Project (Table 12.5) run through Minffordd and Penrhyndeudraeth, the two tourism hubs in the Study Area. In terms of severance, Chapter 12 states that the effects would be acceptable (Table 12.16), as the peak year traffic levels would not extend beyond 17 months, and average daily HGV movements across the entire construction phase of the Proposed Project are approximately 18 two-way HGV movements.
- 13.7.13 There are expected to be noise and vibration effects on receptors within Minffordd and Penrhyndeudraeth during construction; however, as stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.14 As stated in Chapter 6, there are expected to be some landscape and visual effects on areas of the community in Minffordd and Penrhyndeudraeth during construction; however, these would largely be short term, temporary and reversible.
- 13.7.15 There are no environmental effects that combine to create an overall amenity effect on tourism hubs during construction.

### Tourism Sector

- 13.7.16 This section considers the potential impacts on the tourism sector in Gwynedd and Snowdonia National Park, in terms of visitor numbers. The Study Area is only a very small area within Snowdonia National Park and within Gwynedd Council Area, and therefore the tourism sector is unlikely to heavily rely on the Study Area for its contribution to the tourism offer.

- 13.7.17 While a number of road links for construction traffic have been identified within the Study Area, the severance effect caused by these is not expected to lead to any unacceptable residual environmental effects, as stated in Chapter 12.
- 13.7.18 Chapter 14 states that noise impacts are expected to be controlled to levels not considered to represent adverse impacts, and therefore there are not expected to be any noise impacts on the tourism sector in Gwynedd and Snowdonia National Park
- 13.7.19 As stated in Chapter 6, there are expected to be some landscape and visual effects during construction; however, these would largely be short term, temporary and reversible and therefore expected to cause only minimal effects on the tourism sector in Gwynedd and Snowdonia National Park.
- 13.7.20 There are no environmental effects that combine to create an overall amenity effect on tourist hubs or attractions during construction; therefore, it can be concluded that there is not likely to be any effect on the tourism sector as a whole.

#### *Recreation*

- 13.7.21 The effects on recreation are assessed from an access and amenity perspective. The appraisal considers the potential change in user numbers of recreational areas due to an impact on access and amenity. A collective view is taken as to whether access and amenity effects resulting from the Proposed Project have the potential to affect recreation at receptors within the Study Area.

#### Public Rights of Way

##### Footpaths

- 13.7.22 As stated in Chapter 12, Table 12.6, access to pylons for dismantling and OHL removal on the Dwyryd Estuary requires the use of Penrhyndeudraeth Restricted Byway 26, Penrhyndeudraeth Footpath 26 and Penrhyndeudraeth Footpath 24. It is anticipated that the impacts could be controlled through traffic management measures, diversions and temporary closures (paragraph 12.6.13).
- 13.7.23 Talsarnau Footpath 52 at Cilfor, which is currently used for access for existing maintenance activities, is expected to be affected during construction. It is anticipated that these impacts could also be controlled through traffic management, although temporary stopping up or diversion of the PRow could be considered if required (Paragraph 12.6.13).
- 13.7.24 No effects are expected on any other PRow.
- 13.7.25 As stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse effects.
- 13.7.26 As stated in Chapter 6, there are expected to be some visual effects for users of the Welsh Coastal Path, and people using PRow around Porthmadog and Borth-y-Gest during construction; however, these would largely be short term, temporary and reversible.
- 13.7.27 Given the traffic, noise and visual effects above, there are expected to be minimal amenity effects on PRow.

##### Cycle Routes

- 13.7.28 There are two cycle routes within the Study Area, both are NCR routes.

- 13.7.29 NCR 82 is located in the north of the Study Area and is not directly affected by construction. As stated in Chapter 12, NCR 82 is not expected to experience any unacceptable residual traffic effects.
- 13.7.30 There are no potential visual or noise impacts expected on NCR 82, therefore there is no potential for an amenity effect on this receptor.
- 13.7.31 NCR 8 is crossed twice by the existing OHL near Minffordd and once near Llandecwyn; therefore, the route is likely to be affected by pylon removal activities. Chapter 12 has assigned a medium impact for severance for Link 2, which runs from Minffordd Roundabout to NCR 8 and a high impact for severance for Link 3, which runs between the A497 and the Existing Garth SEC compound (Table 12.16). Once mitigation is taken into consideration (including carriageway widening and traffic management (temporary speed limit reduction, advanced warning signage, and the use of traffic marshals), along with the relatively low usage of NCR 8 (fewer than 30 daily average cycle movements), it is considered that the effects on severance would be acceptable.
- 13.7.32 As stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.33 As stated in Chapter 6, there are expected to be some visual effects on users of NCR 8 during construction; however, these would largely be short term, temporary and reversible.
- 13.7.34 There are no environmental effects that combine to create an overall amenity effect on cycle routes during construction.

#### Long Distance Walking Routes

- 13.7.35 There are six LDWR within the Study Area.
- 13.7.36 O Fôn I Fynwy and Taith Arduwy Way are located in the far east of the Study Area and are not affected by severance from construction traffic routes.
- 13.7.37 The Wales Coastal Path (WCP) runs through the Study Area and uses segregated pedestrian infrastructure (footways alongside the carriageway); therefore, site construction traffic would not directly interact with users of the WCP. The Meirionnydd Coast Walk largely follows the route of the WCP within the Study Area, and therefore it is not expected that site construction traffic would directly interact with users of the LDWR.
- 13.7.38 The Mawddach-Arduwy Trail follows a section of the NCR 8 route around the site boundary in the north west of the Study Area around Minffordd. Potential severance effects have been identified for NCR 8 (paragraph 13.7.31), due to the presence of construction traffic routes. However, once mitigation is taken into consideration, it is considered that the effects on severance would be acceptable (Table 12.18).
- 13.7.39 It is expected that any potential effects on the PRoW that are used by the LDWR could be managed through traffic management measures (Paragraph 13.7.15 and Paragraph 13.7.16).
- 13.7.40 As stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.41 As stated in Chapter 6, there are expected to be some visual effects during construction; however, these would largely be short term, temporary and reversible.
- 13.7.42 There are no environmental effects that combine to create an overall amenity effect on LDWR routes during construction.

Open Access Land and Nature Reserves

- 13.7.43 There are several large areas of open access land within the Study Area, largely to the south of the River Dwyryd.
- 13.7.44 The road links identified as being used by construction traffic (Table 12.5) which run close to the areas of open access land, have been assessed as having a very low magnitude for severance (Table 12.12) and therefore the severance effects on open access land are expected to be minimal.
- 13.7.45 As stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.46 As stated in Chapter 6, there are expected to be some visual effects on users of open access land during construction; however, these would largely be short term, temporary and reversible.
- 13.7.47 Given the traffic, noise and visual effects above, there are expected to be minimal amenity effects on open access land.
- 13.7.48 There are two nature reserves within the Study Area; Traeth Glaslyn and Gwaith Powdwr.
- 13.7.49 The road links identified as being used by construction traffic (Table 12.5) which run close to the nature reserves (Link 4 and Link 9), have been assessed as having a very low magnitude for severance (Table 12.12) and therefore the severance effects on open access land are expected to be minimal.
- 13.7.50 As stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.51 As stated in Chapter 6, there are expected to be some visual effects on visitors to Gwaith Powdwr Nature Reserve during construction; however, these would largely be short term, temporary and reversible.
- 13.7.52 Given the traffic, noise and visual effects above, there are expected to be minimal amenity effects on the nature reserves.

Marine-related Leisure Activities

- 13.7.53 There are several water sports that can be enjoyed on the Dwyryd Estuary, in addition to fishing on the River Glaslyn near Porthmadog.
- 13.7.54 As stated in Chapter 12, there are not expected to be any unacceptable residual environmental effects on any of the road links identified in the chapter, therefore no effects on access to the Dwyryd Estuary or the River Glaslyn are anticipated.
- 13.7.55 As stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.56 As stated in Chapter 6, there are expected to be some visual effects on recreational users around the Dwyryd Estuary during construction; however, these would largely be short term, temporary and reversible.
- 13.7.57 Given the traffic, noise and visual effects above, there are expected to be minimal amenity effects on marine-related leisure activities.
- 13.7.58 As direct access to the Dwyryd Estuary and the River Glaslyn will be maintained during construction, there is no effect on access to marine-related leisure activities within the study area.

### *Community Amenity*

- 13.7.59 Community amenity effects arise from a combination of visual, traffic and noise effects. These effects are considered in combination to determine the potential overall adverse effect on residents living in that community. The community amenity appraisal is therefore based on the residual effects presented in Chapter 6 (Landscape and Visual), Chapter 12 (Traffic and Transport) and Chapter 14 (Noise and Vibration).
- 13.7.60 A number of links identified as being used by construction traffic in order to access the Proposed Project (Table 12.5) run through Minffordd and Penrhyndeudraeth, the community settlements within the Study Area (Figure 13.1). In terms of severance, Chapter 12 states that the effects would be acceptable (Table 12.16), as the peak year traffic levels would not extend beyond 17 months, and average daily HGV movements across the entire construction phase of the Proposed Project are approximately 18 two-way HGV movements.
- 13.7.61 There are expected to be noise and vibration effects on receptors within Minffordd and Penrhyndeudraeth during construction; however, as stated in Chapter 14, noise impacts are controlled to levels not considered to represent adverse impacts.
- 13.7.62 As stated in Chapter 6, there are expected to be some visual effects during construction; however, these would largely be short term, temporary and reversible.
- 13.7.63 There are no environmental effects that combine to create an overall amenity effect on communities during construction.

### *Employment*

- 13.7.64 Construction of the Proposed Project has the potential to generate direct and indirect positive effects through the creation of new jobs.
- 13.7.65 The majority of the construction work would require the appointment of approved contractors and sub-contractors. These highly-trained specialists are likely to be located through the UK with experience of moving from site to site as new projects are developed. Therefore, the positive employment and induced spending effects from these workers would be realised at a regional and national level rather than at a local level.
- 13.7.66 During construction, it is anticipated that a labour peak of up to 100 on-site personnel would occur during the busiest period, including all contractors and sub-contractors.
- 13.7.67 Local employment opportunities would be expected in certain sectors, including site security, construction labourers, plant hire, haulage, landscaping, fencing and drainage.
- 13.7.68 In addition to the direct local employment opportunities generated by the Proposed Project, additional jobs could be generated or supported as a result of increased supply chain activity and local spending.

### *Supply Chain*

- 13.7.69 The workers for the Proposed Project are likely to stay in local accommodation, including within the towns of Penrhyndeudraeth and Porthmadog. This is expected to generate some short-term benefit to the local economy during the construction phase of the Proposed Project.

- 13.7.70 There would also be further indirect economic benefits arising from expenditure by the workforce on subsistence and consumables in the local area.
- 13.7.71 There would also be the potential for a temporary beneficial impact on local suppliers of items such as construction plant, fencing, re-instatement materials, fuel, consumables, aggregates, seed mixes, timber, portaloos, skip hire and office equipment. However, procurement is likely to have a national rather than a local focus.

### ***Appraisal of Impacts during Operation***

- 13.7.72 During operation, construction compounds would be restored to previous use/condition, although permanent tunnel head houses, SEC and permanent access roads would remain. These aspects of the operation phase have the potential to cause effects to access and amenity in the study area. These potential effects are discussed in this section.

#### *Change in access (tourism and recreation)*

- 13.7.73 During the operation phase of the Proposed Project, expected to last between 40 and 60 years, typical maintenance works would be required. Below ground infrastructure would need to be inspected every three years, including inspection of the THH and shaft, while above ground structures would be inspected every month, including a walk of the fence line. This is not expected to have any impact on access for tourism and recreation.

#### *Amenity effects (tourism, recreation and community)*

- 13.7.74 A combination of negative and positive visual impacts are expected during operation, although the negative visual impacts of the new infrastructure (THH, modifications to the SEC) are minimal in comparison to the highly positive influence of the removal of the existing infrastructure.
- 13.7.75 As only one environmental effect (Chapter 6, Landscape and Visual) is expected to arise during operation, there is no possible combination of effects to create an overall amenity effect. As such, no detailed appraisal of operational amenity is required.

### ***Appraisal of Impacts during Decommissioning***

- 13.7.76 Decommissioning activities include the removal of the Proposed Project, i.e. high voltage cables from the tunnel (life expectancy of 40-60 years), removal of the SEC and terminal pylon, tunnel head houses and permanent access (the tunnel itself could be capped off or flooded). Further information on decommissioning activities is provided in the Project Description (Chapter 2).
- 13.7.77 The detailed decommissioning methodology would be finalised immediately prior to decommissioning and therefore, for appraisal purposes, it is assumed that effects during decommissioning will be similar to those during construction. However, as there will be no traffic movements associated with the removal of tunnel spoil, effects are likely to be less and for a shorter period of time.
- 13.7.78 Taking the above into consideration, the effects on socio-economic and tourism receptors during decommissioning are expected to be minimal.

## **13.8 Mitigation and Summary of Residual Effects**

- 13.8.1 No mitigation specific to the socio-economic and tourism appraisal is proposed.