6 LANDSCAPE AND VISUAL

6.1 Introduction

6.1.1 This chapter of the Environmental Appraisal presents an appraisal of the potential landscape and visual effects arising from the construction, operation and decommissioning phases of the Snowdonia Visual Impact Provision (VIP) project (here on referred to as 'the Proposed Project').

6.1.2 The likely effects of the Proposed Project on landscape and visual amenity is considered through the process of landscape and visual appraisal (LVA) which is broadly based on the more formal process of landscape and visual impact assessment (LVIA). In particular, this considers the effects on the landscape of the area, including its physical and perceptual qualities and how these interact to create its overall character and the views and visual amenity experienced by people in the locality.

6.1.3 This chapter describes the baseline conditions currently existing at the site and surrounding area; the methods used to appraise effects; the mitigation measures required to prevent, reduce or offset the most notable negative effects; and the likely residual effects after these measures have been adopted.

6.2 Scope and Methodology

6.2.1 The methodology for undertaking the LVA is based on principles set out by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) in the third edition of Guidelines for Landscape and Visual Assessment (GLVIA3) (LI and IEMA, 2013)[1]. GLVIA3 is the established good practice guidance for LVIA.

6.2.2 A detailed methodology for the LVA is provided in Appendix 6.A and summarised below.

Study Area

6.2.3 The LVA 5km Study Area and 3km Study Area are illustrated in Figure 6.1. The 3km Study Area is considered to encompass the area/ receptors which could be affected to a notable degree by the Proposed Project. The 5km Study Area is considered to ensure robustness in the appraisal. The reasoning behind the choice of Study Area is explained in more detail in Appendix 6.A.

6.2.4 To support the appraisal, a number of Zone of Theoretical Visibility (ZTV) maps have been produced in line with the method set out in Appendix 6.A. Five maps have been produced, as follows:

- Figure 6.2 represents the worst case scenario in terms of the theoretical visibility of all of the above ground operational components of the Proposed Project combined. The ZTV has been extended up to 10km to demonstrate that the 3km Study Area and 5km Study Area are appropriate for this appraisal. The 10km ZTV has been reviewed to determine whether or not there would be any particularly sensitive receptors beyond the 5km Study Area that should be included in the appraisal. None have been identified.

[1] Landscape Institute and Institute of Environmental Management & Assessment, (2013), 'Guidelines for Landscape and Visual Impact Assessment, Third Edition', (London and New York: Routledge)

- Figure 6.3 represents the worst case scenario in terms of the theoretical visibility of the proposed West Tunnel Head House.
- Figure 6.4 represents the worst case scenario in terms of the theoretical visibility of the proposed East Tunnel Head House.
- Figure 6.5 illustrates the difference in ZTV between existing Pylon 4ZC027 and proposed replacement Pylon 4ZC027R; and
- Figure 6.6 represents the existing worst case scenario in terms of the theoretical visibility of the existing pylons that are proposed for removal.

6.2.5 The ZTVs take no account of the screening effects of buildings, vegetation or localised variations in landform, which may in reality preclude visibility from certain areas.

6.2.6 As a result they are referred to as 'bare earth ' ZTVs and provide the 'worst case' or largest area from which a development may be visible. These maps support the definition of the LVA Study Area and have also been used to help identify potential visual receptors and whether there are any particularly sensitive receptors lying just within or beyond 5km (as stated in paragraph 6.2.4, no receptors have been identified).

Desk Study

6.2.7 Available desk top information has been reviewed, to gain an understanding of existing landscape character and visual amenity of the Study Area, as listed in Appendix 6.A, Detailed LVA Methodology.

Field Surveys

6.2.8 Information gathered as part of the desktop study has been verified on site by a number of surveys undertaken between winter/ spring 2017 and spring 2018.

6.2.9 Field survey work included visits to the Proposed Project site and the wider landscape within the 5km LVA Study Area; concentrating on the 3km Study Area. These site visits were also used to gather a series of viewpoint photographic surveys. All photography was undertaken in accordance with the Landscape Institute's (LI) Advice Note 01/11 ‘Photography and Photomontage in Landscape and Visual Assessment’.

Appraisal of Impacts

6.2.10 The main steps taken in the appraisal of landscape and visual effects have been based on the guiding principles set out in GLVIA3. These are summarised as follows:

- The baseline landscape of the study area has been reviewed through desk top studies and site visits undertaken throughout spring, summer, autumn and winter;
- Landscape receptors have been identified and judgments made with regard to their baseline value;
- ZTV maps have been produced to establish the areas from which the Proposed Project may be visible;
- Visual receptors have been identified within the ZTVs and viewpoints selected to be representative of views from around the Study Area, from a variety of receptors;
- The values of baseline views have been considered;

- Appraisals of the sensitivity of the landscape and visual receptors have been made, taking into consideration value identified as part of the baseline and the susceptibility of the receptors; and
- Appraisals have been made regarding the magnitude of effect (or change) on receptors as a result of the Proposed Project.

6.2.11 Effects are appraised during construction, at winter year 1 of operation and at summer of year 15 when any mitigation measures have become effective (as planting matures). Effects of maintenance and decommissioning are also considered.

Sensitivity of Receptor

6.2.12 The appraisal establishes the sensitivity of both landscape and visual receptors. Sensitivity is made up of judgments about the value attached to the receptor and the susceptibility of the receptor to the Proposed Project. Further information on value and susceptibility is provided within Appendix 6.A, Detailed LVA Methodology.

Table 6.1: Indicative Criteria for Judging Sensitivity

Sensitivity	Typical Example/ Description
Landscape Receptor Sensitivity	
High	The key characteristics and qualities of the landscape (for instance landform, land cover, scale, prominent features, human influence and perceptual aspects and tranquillity) are highly sensitive to change from the type and scale of development being appraised. Key landscape characteristics are highly vulnerable and unable to accommodate the development without significant effects on character.
Medium	Some of the key characteristics and qualities of the landscape are sensitive to change from the type and scale of development being appraised. Although the landscape may be able to absorb some development if sensitively sited and designed, it may introduce new inappropriate characteristics or result in a change in character.
Low	Key characteristics and qualities of the landscape are robust and unlikely to be adversely affected by the type and scale of development being appraised.

Sensitivity	Typical Example/ Description
Visual Receptor Sensitivity	
High	Receptors that typically have a strong interest in their visual surroundings combined with highly valued views which may be of high scenic value and with very few or no detractors. This may include tourist destinations where views of the surroundings are fundamental to the experience, trig points and publicly accessible hilltops, attractions within nationally valued landscapes, people using scenic routes, national trails and cycle routes and open access land whose interest is likely to be focussed on the landscape and people in the local community.
Medium	Receptors with a moderate interest in their visual surroundings combined with moderately valued views of which may be of some scenic quality but may have some detractors. This may include people using national and regional trails and cycle routes, people using incidental footpaths and local public rights of way, people travelling along local roads and people in the local community.
Low	Receptors with typically a low, passing or momentary interest in their visual surroundings, combined with views of lower scenic quality. This may include people with limited opportunity to enjoy the view due either to the speed of travel or because their attention is elsewhere, such as: people travelling on main roads (although susceptibility may be higher in scenic locations), or people at their place of work whose attention may be focussed on other activities.

6.2.13 It is important to note that the landscape sensitivities identified in this appraisal are purely relative to the landscape and visual amenity of the receptors within the Study Area and to the nature of the development proposed.

Magnitude of effect

6.2.14 Overall judgments are made with regard to the magnitude of landscape and visual effects (made up of judgments about the size/ scale of predicted effect, the geographical extent of the area affected, the duration of the effect and its reversibility).

Table 6.2: Indicative Criteria for Judging Magnitude

Magnitude	Typical Example/ Description
Magnitude of Landscape Effect	
High	Considerable change to the landscape over a wide area or intensive change over a limited area with dramatic consequences for the elements, character and quality of the baseline landscape. The Proposed Project would form or remove a dominant landscape element and post development the baseline situation would be fundamentally changed, potentially creating a different landscape character. If designated, affecting the reasons for the designation.

Magnitude	Typical Example/ Description
Medium	Noticeable change to the landscape over a wide area or conspicuous change over a limited area, with some consequences for the elements, character and quality of the baseline landscape. The Proposed Project would form or remove a conspicuous landscape element and post development the baseline situation may be noticeably changed. If designated, unlikely to affect the reasons for the designation.
Low	Slight change to the landscape over a wide area or noticeable change over a limited area, with limited consequences for the elements, character and quality of the baseline landscape. Change due to the Proposed Project would be perceptible but post development, the baseline landscape may exhibit some differences, but would be largely unchanged. If designated, not affecting the reasons for the designation.
Negligible	Almost indiscernible change to the landscape, with very limited or no consequences for elements, character and quality of the baseline landscape. Change due to the Proposed Project would be barely perceptible and post development, the baseline landscape would appear unchanged. If designated, not affecting the reasons for the designation.
No Change	The appraisal also identifies areas where no landscape change is anticipated.
Magnitude of Visual Effect	
High	Total loss, introduction or major alteration to key elements/ features/ characteristics of the baseline view which would result in a dramatic change to the character and quality of the existing view and how it is perceived. Typically this would be where the Proposed Project would be in very close proximity with a large proportion of the view affected, with no or minimal screening/ filtering or backgrounding of views. Positive judgements may include situations where the removal of major elements (such as pylons) gives rise to major alterations in the view. Negative judgements may include situations where the introduction of elements in a view are considered to be very uncharacteristic when set within the attributes of the receiving landscape.

Magnitude	Typical Example/ Description
Medium	Partial loss, introduction or alteration to one or more key elements/ features/ characteristics of the baseline view which would result in a noticeable change to the character and quality of the existing view and how it is perceived. The Proposed Project would form or remove a conspicuous element in the view and result in a noticeable change to the character and quality of the existing view and how it is perceived. Typically this would be where change would be clearly visible and well-defined or where a moderate proportion of the view is affected, although there may be some screening or backgrounding. Positive judgements may include situations where the removal of notable elements (such as pylons) gives rise to noticeable alterations in the view. Negative judgements may include situations where the introduction of elements in a view are not considered totally uncharacteristic when set within the attributes of the receiving landscape. These may also include situation where the Proposed Project would draw the eye and make other features appear subordinate but would be of similar scale to other features in the view.
Low	The Proposed Project would be perceptible (in terms of additions or losses of elements from within the view) but would result in an inconspicuous change to the character and quality of the existing view and how it is perceived. Typically this would be where a development (either be it the addition or removal of elements) would form a perceptible part of a long distance panoramic view and/ or where a very small proportion of the view may be affected.
Negligible	Almost indiscernible change to the view, with no consequences for the character and quality of the view. The Proposed Project would be barely perceptible and post development, the baseline view would appear unchanged.
No Change	The appraisal also identifies areas where no visual change is anticipated.

Landscape Receptors Considered

6.2.15 As explained in the National Grid (2018), 'Visual Impact Provision Snowdonia National Park, Screening and Scoping Report' (October 2018) the Landscape Character Areas (LCA) identified within landscape character assessments produced by Snowdonia National Park and Gwynedd Council have been selected as the basis for undertaking the appraisal of effects on landscape character. The Visual Impact Provision: Landscape and Visual Impact Assessment of Existing Electricity Transmission Infrastructure in Nationally Protected Landscapes in

England and Wales Technical Report (2014)[2] considered these LCA when making judgements relating to existing impacts of the 4ZC OHL on the landscape. LANDMAP Visual and Sensory Aspect Areas (VSAAs) broadly correspond with the LCA and as such will be used to help inform the underlying landscape value of each LCA. Cross references are made between the LCA and corresponding VSAA for clarity in this chapter.

6.2.16 Table 6.3 below summarises the landscape receptors that have been included or excluded from the appraisal. Justifications are provided where receptors have been excluded from the appraisal.

6.2.17 The LVA does not include a detailed sensitivity study of the LCA, instead the LVA refers to published Landscape Sensitivity and Capacity Studies (2014)[3] in relation to judgements of landscape value, susceptibility and sensitivity.

Table 6.3: Landscape Receptors Included/ Excluded from the Appraisal

Landscape Receptor	Approach/ consideration in the appraisal	Considered as a Landscape Receptor in the LVA
Landscape elements (i.e. tree cover, field boundaries, landform, water courses)	The LVA describes landscape elements as part of the baseline in terms of contribution to landscape character. The appraisal considers landscape elements in terms of how any changes to the elements may influence effects on landscape character. Landscape elements are not appraised as receptors in their own right.	No
National Landscape Character Areas (NLCA)	National Landscape Character Areas (NLCA) (as published on the NRW website on 15 September 2017) have been reviewed and outlined in the baseline, for background information. NLCAs are not considered as landscape receptors. This is to avoid duplication in the appraisal as the appraisal of effects on landscape character will be based on LCAs. Cross reference is made between the appraisal of effects on LCAs and corresponding NLCAs for clarity.	No

[2] Swanwick, C., Gillespies and Land Use Consultants, (2014), 'Visual Impact Provision: Landscape and Visual Impact Assessment of Existing Electricity Transmission Infrastructure in Nationally Protected Landscapes in England and Wales Technical Report', National Grid.

[3] Isle of Anglesey County Council and Gwynedd Council (2014). Joint Local Development Plan Background Paper, Isle of Anglesey, Gwynedd and Snowdonia National Park Landscape Sensitivity and Capacity Study (2014); and Snowdonia National Park Authority (October 2016). Supplementary Planning Guidance 13, Landscape Sensitivity and Capacity Assessment

Landscape Receptor	Approach/ consideration in the appraisal	Considered as a Landscape Receptor in the LVA
Gwynedd Landscape Character Areas (LCAs)	The published LCAs for Gwynedd have been reviewed and outlined in the baseline. LCAs form the basis of the appraisal of effects on landscape character and as such are considered as landscape receptors in this appraisal.	**Yes**
Snowdonia National Park LCAs	The published LCAs for Gwynedd have been reviewed and outlined in the baseline. LCAs form the basis of the appraisal of effects on landscape character and as such are considered as landscape receptors in this appraisal.	**Yes**
LANDMAP Visual and Sensory Aspect Areas (VSAA)	The published LANDMAP VSAAs have been reviewed and outlined in the baseline, for background information. VSAAs are not considered as landscape receptors. This is to avoid duplication in the appraisal as the appraisal of effects on landscape character is based on LCAs. Cross reference is made between the appraisal of effects on LCAs and corresponding VSAAs for clarity.	No
National Marine Character Areas (MCA)	National Marine Character Areas (MCAs) have been and outlined in the baseline, for background information. MCAs are excluded from the landscape appraisal as the landward parts of these areas overlap with the LCAs which are considered as landscape receptors in the appraisal.	No
Local Seascape Character Areas (SCA)	Local Seascape Character Areas (SCAs) have been reviewed and outlined in the baseline for background information. SCAs are excluded from the landscape appraisal as the landward parts of these areas overlap with the LCAs which are considered as landscape receptors in the appraisal.	No
Snowdonia National Park	Snowdonia National Park is considered as a landscape receptor in this appraisal. Appraisal of the effects on the setting of the National Park are also considered.	**Yes**

Landscape Receptor	Approach/ consideration in the appraisal	Considered as a Landscape Receptor in the LVA
Glaslyn & Dwyryd Estuary Landscapes Special Landscape Area[4] (SLA)	Glaslyn & Dwyryd Estuary Landscapes SLA is considered as a landscape receptor in this appraisal.	**Yes**
Porthmadog and Tremadog Bay SLA	Porthmadog and Tremadog Bay SLA is considered as a landscape receptor in this appraisal.	**Yes**
Registered Parks and Gardens (RPG)	The LVA considers RPGs as part of the baseline, in terms of the contribution they may make to landscape character and in relation to judgements of the value and susceptibility of the underlying LCA in which they fall. RPG are excluded from the landscape appraisal on the grounds that those which are most likely to be affected will be appraised in the Historic Environment chapter. RPGs are not therefore appraised as landscape receptors in their own right. Effects on the visual amenity of visitors to RPGs (for instance visitors to Portmeirion) are considered as part of the visual appraisal of the LVA.	No

6.2.18 As stated in the National Grid (2018), 'Visual Impact Provision Snowdonia National Park, Screening and Scoping Report' (October 2018) the LVA has not appraised the effects of the Proposed Project on landscape receptors that are located wholly outside the ZTV.

Visual Receptors Considered

6.2.19 As explained in the National Grid (2018), 'Visual Impact Provision Snowdonia National Park, Screening and Scoping Report' (October 2018) the different groups of people or visual receptors considered in the appraisal are as follows:

- People living in the area (communities);

[4] A Special Landscape Area (SLA) is a non-statutory conservation designation used by local government to categorise sensitive landscapes which are of high landscape importance for their intrinsic physical, environmental, visual, cultural and historical value, and are either legally or as a matter of policy, protected from development or other man-made influences.

- People visiting and/ or taking part in recreational activities within the area (recreational receptors); and
- People travelling through the area (road and rail receptors).

6.2.20 The LVA has not appraised the effects of the Proposed Project on visual receptors that are located wholly outside the ZTV.

6.2.21 The LVA does not consider effects on residential receptors outside of public spaces because in law, private individuals do not have a right to a view (as established in Aldred's Case[5], and impacts on living conditions are usually dealt with through a separate residential visual amenity assessment, if required. In this case, such an assessment is not required because the Proposed Project is not likely to be so overbearing or dominating as experienced from any individual property, as a result in unacceptable living conditions.

6.2.22 The starting point for the identification of visual receptors involved desk based research on access and recreation, including footpaths, bridleways and public land, on tourism including popular vantage points, and on the distribution of the different groups of visual receptor. This has been considered alongside a desk based analysis of ZTV maps which represent the worst case scenario in terms of potential visibility of the Proposed Project.

6.2.23 The ZTV has been checked on site to determine whether any localised landform, vegetation or built form restricts views.

6.2.24 Desk top studies, site visits and liaison with stakeholders has identified a number of viewpoints which are used to support the visual appraisal (refer to Appendix 6.C). It is important to note the visual appraisal is not reliant on viewpoint analysis; however, the viewpoints are used to describe baseline views and describe potential changes in visual amenity. These viewpoints are representative and do not identify every location with a potential view of the Proposed Project The range of viewpoints included in Appendix 6.C have been chosen to represent views experienced by a range of receptors in the Study Area. Where possible they have been selected in places where they represent a number of different receptor groups.

6.3 Limitations, Uncertainties, or Difficulties Encountered

6.3.1 The ZTVs relating to the proposed infrastructure on the western and eastern side of the Dwyryd Estuary show the theoretical visibility of the Tunnel Head House and Terminal Pylon 4ZC027R only. The equipment proposed in Garth Sealing End Compound and the proposed Sealing End Compound near Cilfor have not been included in the ZTV as the effects of these structures are expected to be localised and fall within the Tunnel Head House ZTVs.

6.3.2 The ZTV relating to the removal of the VIP Subsection is based on pylons only and does not take into account the overhead cables or the removal of the Gantry at Garth Sealing End Compound as the effects of the removal of these are expected to fall within the Pylon ZTVs.

6.4 Consultation Undertaken

6.4.1 As part of the scoping phase of the Environmental Appraisal, a Screening and Scoping Report (National Grid, October 2018) was prepared to set out the proposed approach in respect of the Proposed Project, including the identification of appraisal methodologies for each of the topic areas. The information and advice received

[5] Aldred's Case (1610) 9 Co Rep 57b; (1610) 77 ER 816, [1558-1774] All ER Rep 622

during the scoping process with regard to the landscape and visual appraisal is summarised in Table 6.4.

Table 6.4: Consultation Responses

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
Scoping opinion consultation responses			
15/02/2019 & 18/01/19	Gwynedd Council Planning Manager (Cara Owen) & Natural Resources Wales (NRW, Peter Morrison Permitting Officer Marine Licensing Team)	The LPA (& NRW) consider that the submission has provided sufficient information to confirm the scope of the study area, baseline context and assessment methodology for the landscape and visual aspects of the project. However, recommendations have been provided below which should be addressed within the subsequent proposed Environmental Assessment Report:	Recommendations addressed within this chapter of the Environmental Appraisal.
15/02/2019 & 10/12/2018 & 18/01/19	Gwynedd Council Planning Manager (Cara Owen) & Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	Section 2.18: The disposal of spoil from the shaft and tunnel construction. Section 2.18 indicates some disposal on site could take place in the form of earth mounding. Careful planning and design will need to be demonstrated to ensure scale, form and location of mounding avoids temporary and permanent adverse effects on landscape, habitats and the historic environment. This also refers to the temporary stockpiling of 2 to 3 days of excavated spoil, which could include soil and rock. The Environmental Assessment Report will need to provide some comment on what this might entail and the effects upon landscape character and views for the project site and receiving site of these materials.	Landscape mitigation proposals are shown in Figure 2.2. The LVA has taken temporary stockpiling into consideration as part of the appraisal of construction effects. Any disposal of spoil off-site is outside the scope of the LVA. An Outline Waste Management Plan has been produced (see appendix to the CEMP).

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
15/02/2019	Gwynedd Council Planning Manager (Cara Owen)	Section 4.49 onwards: Visual receptors The LPA confirm that the choice of viewpoints are acceptable, however we are happy to discuss further points as required. The LPA concur with the comments made by NRW with regard to community outlook in appendix 1 of their screening opinion	Noted - Viewpoints were reviewed in response to comments. The viewpoint appraisal is presented in Appendix 6.C
10/12/2018 & 18/01/19	Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	Section 4.49 onwards: Visual receptors We advise that a Zone of Theoretical Visibility (ZTV) would have been useful to provide the necessary context to support the choice of assessment viewpoints and confirm all sensitive views have been included. From our knowledge of the area, the choice of viewpoints make sense, but we would wish to see the ZTV before confirming our acceptance.	Indicative ZTVs were produced and issued to stakeholders and viewpoints were reviewed in response to comments. The viewpoint appraisal is presented in Appendix 6.C. Figures 6.2 to 6.6 illustrate ZTVs in relation to the Proposed Project.
15/02/2019	Gwynedd Council Planning Manager (Cara Owen)	Section 4.70: Proposed mitigation measures The LPA welcome the inclusion of landscape enhancement through onsite and offsite measures, and would encourage early involvement and discussion with regard to the proposed landscaping around the sites.	Noted. Landscape mitigation proposals are shown in Figure 2.2. The Visual Impact Provision, Snowdonia Project is a stakeholder driven project which in itself will greatly enhance the landscape

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
10/12/2018 & 18/01/19	Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	Section 4.70: Proposed mitigation measures We welcome the inclusion of landscape enhancement through onsite and offsite measures. These will be of most relevance in the vicinity of the Sealing End Compounds (SEC), tunnel head buildings, the section of pylons that remain in the narrow upland valley of the Nant Yr Efail, and landscape contexts that benefit the local community and visitors. Given the spread of ash dieback disease, we would also welcome the identification of strategic locations where succession tree planting could be introduced, to maintain and enhance the development's screening. As with National Grid's North Wales Connection Project across the Isle of Anglesey, we would welcome the project inviting, funding and co-ordinating offsite initiatives that support the proposed project's objectives	Noted. Landscape mitigation proposals are shown in Figure 2.2. The Visual Impact Provision, Snowdonia Project is a stakeholder driven project which in itself will greatly enhance the landscape Evidence of Ash dieback disease has been noted within the tree survey presented in Appendix 6.D.
15/02/2019 & 10/12/2018 & 18/01/19	Gwynedd Council Planning Manager (Cara Owen) & Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine	Appendix A4.1 Proposed Viewpoints NRW have noted that the images presented in Appendix A4.1 become distorted when zooming in to study the existing pylons. Please ensure images are saved at the appropriate resolution.	The resolution was reduced for the scoping report so the file could be transferred electronically - resolution has been improved to accompany the planning application. The viewpoint appraisal is presented in Appendix 6.C.

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
	Licencing Team (Peter Morrison)		
10/12/2018 & 18/01/2019	Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	Appendix A4.1 Proposed Viewpoints We advise that providing the viewing distance to the nearest component of the development would be useful. Viewpoint 'N' includes open views in places partly obscured by small trees. We recommend that this viewpoint may need re-siting slightly to help explain the influence of the SEC and Tunnel House, once their location has been decided upon.	Noted - Viewpoints were reviewed in response to comments and viewing distances have been added for information The viewpoint appraisal is included as appendix 6.C.
10/12/2018 & 18/01/2019	Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	The viewpoints to be used for photomontages will need to be agreed to best explain the project's effects. Once community views have been included we recommend discussion with Gwynedd Council, SNPA and ourselves is undertaken to finalise agreement.	Noted - SNPA responded by e-mail on 10th September 2019 to confirm that the photomontage locations are acceptable to the authority. The photomontages are presented a stand-alone report (Illustrative Photomontages).

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
19/12/2018	Snowdonia National Park Authority Head of Development Management and Compliance (Aled Lloyd)	The Authority would request a design statement for the proposed tunnel head building, detailing the reasons for the chosen design and material including landscaping proposals to assimilate the building into the landscape.	A Design and Access Statement has been produced as a standalone document to support the planning application.
10/12/2018 & 18/01/2019	Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	We note in section 4.76 that a residential amenity assessment will not be included. Given that the nature of the project is to remove pylons and the location of new development elements relative to existing residential views, we agree that a residential amenity assessment is not required.	Noted, residual amenity assessment has not been included.
10/12/2018 & 18/01/2019	Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	From desktop analysis community outlook is likely to change at Hendre Hall (potential view from public open space to the south of Adwy Ddu road); Penrhyndeudraeth (view from Cambrian View road); and Trem y Garth (view from near staggered cross roads with the A496, looking north west to the estuary and north towards Y Garth). We advise that, given their local knowledge, Gwynedd Council and Snowdonia National Park Authority (SNPA) may wish to contribute additional comments to this point.	Noted - Viewpoints were reviewed in response to comments. The viewpoint appraisal is presented in Appendix 6.C.

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
15/02/19 & 10/12/2018 & 18/01/2019	Gwynedd Council Planning Manager (Cara Owen) & Natural Resources Wales (NRW, to Gwynedd Council) Development Planning Advisor (Delyth Rowlands) & NRW Permitting Officer Marine Licencing Team (Peter Morrison)	Section 4.77: Overview of likely significance of effect We concur with the preliminary description of where significant effects are likely to occur	Noted. Predicted impacts are discussed in section 6.8.
Consultation on Viewpoints and Landscape/Visual Mitigation:			
7th November 2018, Email; and 10th September 2019, Email	Aled Lloyd, Principal Planning Officer, Snowdonia National Park Authority	To obtain agreement/ feedback on locations for proposed two photomontages. No formal response was received to e-mail dated 7th November 2018. A further e-mail was sent on 10th September 2019 and a response was received from SNPA on 10th September 2019 to acknowledge they were in agreement with the photomontage locations as clarified in e-mail dated 10th September 2019.	The photomontages are presented a stand-alone report (Illustrative Photomontages).
	Cara Owen, Planning Manager, Gwynedd Council	To obtain agreement/ feedback on locations for proposed two photomontages. No formal response was received.	N/A Note: The photomontages are presented a stand-alone report (Illustrative Photomontages)

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
		In the absence of a response it has been assumed that the proposals were appropriate and acceptable to the Council.	
	Richard Sumner, Landscape Architect, Natural Resources Wales	To obtain agreement/ feedback on locations for proposed two photomontages. No formal response was received. In the absence of a response it has been assumed that the proposals were appropriate and acceptable to NRW.	N/A Note: The photomontages are presented a stand-alone report (Illustrative Photomontages)
12th December 2018, Landscape and Planning Meeting	Cara Owen, Planning Manager, Gwynedd Council Gwawr Hughes, Planning Officer, Gwynedd Council Aled Lloyd, Principal Planning Officer, Snowdonia National Park Authority Richard Sumner, Landscape Architect, Natural Resources Wales	There was discussion regarding consideration of visual mitigation/ screening of the West Tunnel Head House. Richard Sumner raised concerns that screening often draws attention to a building.	Landscape mitigation proposals are shown in Figure 2.2.

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
Landscape and Planning Call, 14th February 2019	Cara Owen, Planning Manager, Gwynedd Council Gwawr Hughes, Planning Officer, Gwynedd Council Aled Lloyd, Principal Planning Officer, Snowdonia National Park Authority Richard Sumner, Landscape Architect, Natural Resources Wales	Stakeholders stated they were keen to understand proposals for landscape mitigation/ screening/ planting. Stakeholders were asked to consider and comment on proposed viewpoints for the LVA. No feedback was given during the call. Richard Sumner NRW previously asked for consideration of painting pylons a different colour (east of 4ZC027) to understand whether this might help reduce the visual impact of the existing structures. Gillespies undertook a review of this and the conclusion is that this would not mitigate the impact and as such there would be no reason to change the colour of the pylons.	Landscape mitigation proposals are shown in Figure 2.2.
19th February 2019, Email	Aled Lloyd, Principal Planning Officer, Snowdonia National Park Authority	To obtain agreement/ feedback on viewpoint locations further to issue of scoping report and as discussed at Landscape and Planning Call on 14th February 2019. E-mail proposed 3 new viewpoints (Hendre Hall, Cambrian View and Trem y Garth) which take into consideration comments received from NRW on the scoping report and also proposed to relocate Viewpoint Q or add an additional viewpoint due to design development. No formal response was received.	The viewpoint appraisal is presented in Appendix 6.C.

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
		In the absence of a response it has been assumed that the proposals were appropriate and acceptable to SNPA.	
	Cara Owen, Planning Manager Gwynedd Council Gwawr Hughes, Planning Officer, Gwynedd Council	To obtain agreement/ feedback on viewpoint locations further to issue of scoping report and as discussed at Landscape and Planning Call on 14th February 2019. E-mail proposed 3 new viewpoints (Hendre Hall, Cambrian View and Trem y Garth) which take into consideration comments received from NRW on the scoping report and also proposed to relocate Viewpoint Q or add an additional viewpoint due to design development. Gwynedd Council responded by e-mail on 26th February 2019 to request that an additional viewpoint should be added instead of re-locating viewpoint Q. Gwynedd Council also queried whether a viewpoint had been taken from the A496. A response was sent back by e-mail on 26th February 2019 to explain that viewpoint N had been included in the scoping report to be representative of views from the A496.	The viewpoint appraisal is presented in Appendix 6.C.
	Richard Sumner, Landscape Architect, Natural Resources Wales	To obtain agreement/ feedback on viewpoint locations further to issue of scoping report and as discussed at Landscape and Planning Call on 14th February 2019.	The viewpoint appraisal is presented in Appendix 6.C.

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
		E-mail proposed 3 new viewpoints (Hendre Hall, Cambrian View and Trem y Garth) which take into consideration comments received from NRW on the scoping report and also proposed to relocate Viewpoint Q or add an additional viewpoint due to design development. No formal response was received. In the absence of a response it has been assumed that the proposals were appropriate and acceptable to NRW.	
20th June 2019, Landscape and Planning Call	Cara Owen, Planning Manager, Gwynedd Council Gwawr Hughes, Planning Officer, Gwynedd Council Aled Lloyd, Principal Planning Officer, Snowdonia National Park Authority Richard Sumner, Landscape Architect, Natural Resources Wales	Colour of pylons National Grid confirmed the towers up from Clifor could be painted a different colour. Gillespies noted the different back drops and the difficulty of colour choice and referred to RG / RS email exchange (end March) regards pylons colour. Richard Sumner NRW previously asked for consideration of painting pylons a different colour (east of 4ZC027) to understand whether this might help reduce the visual impact of the existing structures. Gillespies undertook a review of this and the conclusion was that this would not mitigate the impact and as such there would be no reason to change the colour of the pylons. All agreed to keep pylons the same colour. No further work required.	Landscape mitigation proposals are shown in Figure 2.2. The viewpoint appraisal is presented in Appendix 6.C.

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
		RS requested a clear idea of planting before planning submission, including indigenous species (considering where these might sit in terms of height vs compound / building) Revised more curved design of East Tunnel Head House received positively but RS requested a denser tree structure behind the tunnel head house. RG noted tunnel head house in deeper peat so planting may be more difficult and limited. Landscape Viewpoints. Discussed difficulty taking East side viewpoints from the road. Confirmed would be useful for a general look but not make it a formal viewpoint. Proposed viewpoints to be recirculated based on new locations	
10th September 2019, E-mail	Aled Lloyd, Principal Planning Officer, Snowdonia National Park Authority	E-mail sent to request any additional comments on viewpoint and photomontage locations, some of which had been revised slightly to reflect amendments to the proposed project. SNPA responded by e-mail on 10th September 2019 to confirm that the photomontage locations are acceptable to the authority.	The viewpoint appraisal is presented in Appendix 6.C. The photomontages are presented a stand-alone report (Illustrative Photomontages).
10th September 2019, E-mail	Cara Owen, Planning Manager, Gwynedd Council	E-mail sent to request any additional comments on viewpoint and photomontage locations, some of which had been revised slightly to reflect amendments to the proposed project.	The viewpoint appraisal is presented in Appendix 6.C. The photomontages are presented a stand-alone report (Illustrative Photomontages).

Date/ Reference	Consultee	Summary of issues	Section where comment addressed
	Gwawr Hughes, Planning Officer, Gwynedd Council	In the absence of a response it has been assumed that the proposals were appropriate and acceptable to Gwynedd Council.	
10th September 2019, E-mail	Richard Sumner, Landscape Architect, Natural Resources Wales	E-mail sent to request any additional comments on viewpoint and photomontage locations, some of which had been revised slightly to reflect amendments to the proposed project. In the absence of a response it has been assumed that the proposals were appropriate and acceptable to NRW.	The viewpoint appraisal is presented in Appendix 6.C. The photomontages are presented a stand-alone report (Illustrative Photomontages).

6.5 Statutory and Planning Context

6.5.1 A desk-based review of relevant legislation and planning policy relating to electricity transmission and landscape and visual amenity has been undertaken. This included a review of both national and local policy.

Legislation

National Parks

6.5.2 National Parks are nationally valued landscapes, recognised by designation and have a formal statutory status. They are designated under the 1949 National Parks and Access to the Countryside Act (and amended by the Environment Act 1995, Natural Environment and Rural Communities Act 2006 and the Natural Resources Body for Wales (Functions) Order 2013/755) to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them.

Planning Policy

National Planning Policy

6.5.3 Planning Policy Wales Edition 10 (2018) (PPW10) sets out the land use planning policies of the Welsh Government, including national planning policy in respect of promoting sustainability through good design in the built and natural environment. The key policy which relates to the proposed development includes:

- Chapter 6 of PPW10 (particularly Section 6.3) emphasises the particular importance of statutory designations of National Parks and AONBs and also states that all landscapes in Wales are valued and should have their special qualities protected.
- Paragraph 6.3.11 states that non statutory designations such as Special Landscape Areas (SLAs) should be applied as a planning designation where the existing planning policies are not considered to give the landscape sufficient protection.
- Section 6.4 of PPW10, which covers Biodiversity and Ecological Networks, refers to the importance of trees and woodlands in the landscape and the responsibility of local planning authorities to seek to protect these features where they contribute to the character or amenity of a particular locality (para 6.4.25). Paragraph 6.4.26 reiterates these points and adds that ancient and semi-natural woodlands and individual ancient, veteran and heritage trees are irreplaceable resources often with significant landscape value.
- Paragraphs 6.3.19 and 6.3.20 of PPW10 refers to the importance of LANDMAP as an information resource.
- Paragraph 5.7.10 of the PPW10 states that the Welsh government's preferred positions on new power lines is that they should be underground where possible. However, it does recognise that this should be based on a balanced decision considering costs. If undergrounding is not possible, mitigation of the visual impact of the transmission line is required.

6.5.4 PPW is supported by Technical Advice Note (TAN) 12: Design, which provides advice for all those involved in the design of development on how good sustainable design can be facilitated through the planning system.

Local Planning Policy

Joint Development Plan (Anglesey and Gwynedd) (2017)

6.5.5 The Joint Development Plan (Anglesey and Gwynedd) 2017 is the adopted 15 year land use development strategy for Anglesey and Gwynedd. Its focus is on sustainable development. The policies of relevance to the landscape and visual context of the proposed development are:

- **Strategic Policy PS 19: Conserving and where appropriate enhancing the natural environment**. Development should be managed to safeguard the biodiversity, local character and distinctiveness of the natural environment.
- **Policy AMG 2: Special Landscape Areas.** There should be no significant adverse detrimental impacts on Special Landscape Areas (SLAs) as a result of development. Development should attempt to maintain, enhance or restore the qualities of the SLA.
- **Policy AMG 3: Protecting and enhancing features and qualities that are distinctive to the local Landscape Character**. Development should not adversely affect landscape character, especially where Landscape Character Areas have been identified as being of high or outstanding quality or forms part of the National Park or its setting.

Eryri (Snowdonia) Local Development Plan 2007 – 2022 (2011)

6.5.6 The Eryi Local Development Plan includes strategic policies and development policies which will deliver the long term vision for the future of Snowdonia National Park. The policies of relevance to this chapter are:

- **Strategic Policy D: Natural Environment.** The special qualities of the Snowdonia National Park should be protected from inappropriate development.
- **Policy 2: Development and the Landscape.** Development should respect and conserve the character of the landscape.

Snowdonia National Park Management Plan 2010-2015

6.5.7 The current Snowdonia National Park Management Plan sets out how organisations within Snowdonia will work together to achieve shared objectives for the future management of the National Park. One key objective relates to the proposed development and the contents of this chapter:

- **Objective 8: Protect and enhance distinctive landscapes and character types including areas of tranquillity.** Actions proposed in order to achieve this include safeguarding views in and out of the National Park and encouraging the undergrounding of inappropriately located existing overhead lines.

6.6 Existing Environment

Introduction

6.6.1 This section reports on the baselines conditions, identifying the following landscape and visual receptors within the Study Area:

- Landscape designations – National Parks, Special Landscape Areas;
- Landscape character areas;

- Community receptors (i.e. people living in the local community including people living in settlements and scattered residential properties);
- Recreational receptors – people using nationally designated and regionally/ locally promoted public rights of way (PRoW) and cycle routes;
- Recreational receptors – people using open access land and general PRoW;
- Recreational receptors – people visiting promoted viewpoints;
- Recreational receptors – people visiting cultural heritage features;
- Road users - 'A' roads and 'B' roads; and
- Road users – local road/ lane networks.

Landscape Overview

6.6.2 The LVA Study Area is centred on the Dwyryd Estuary, near the small settlement of Minffordd. The landscape of the Dwyryd Estuary has a strong sense of place, derived from its coastal setting and juxtaposition to the dramatic rugged landform of Snowdonia National Park. Distinctive 'islands' and ridges of higher ground sit within and on either side of the estuary. The Afon Dwyryd flows through a distinctive rocky gorge. The estuary comprises extensive intertidal mud, sand and salt marshes with areas of coastal heath and grassland found on the rocky landforms either side of the estuary. Land cover to the north-west of the estuary is influenced by linear settlement and road and rail infrastructure, interspersed with small scale irregular fields and small blocks of deciduous woodland and overgrown hedgerows. There are large areas of plantation in the north-east. Landcover to the south-east of the estuary comprises large areas of rough grazing, drystone walls and woodland clumps with small settlements, farmsteads and houses linked by small local lanes.

6.6.3 The existing 4ZC OHL passes through areas regionally characterised in the Landscapes and Seascapes of Eryri (Snowdonia National Park Authority, 2014) and Gwynedd Landscape Strategy Update landscape character assessments (Gwynedd Council, 2012), both of which utilised LANDMAP methodology and evaluations. Outside the National Park in Gwynedd, the line passes through the Porthmadog Landscape Character Area (LCA), which includes parts of the estuary and the coastal margin and is described as a buffer zone to the National Park. Within Snowdonia National Park, the line runs through the Morfa Harlech LCA and Cefnwlad Arfordir Ardudwy and Dyffryn y Ddwyryd LCAs. The existing 132 kV and 400 kV OHLs, particularly to the west, have a very high scale of impact on the Morfa Harlech and Cefnwlad Arfordir Ardudwy LCAs (and also on the Porthmadog LCA – although this LCA lies wholly outside the National Park).

Landform and Drainage

6.6.4 As illustrated by Figure 6.7 Landform and Drainage, there is a significant variation in topography within the Study Area, ranging from sea level to 600m AOD.

6.6.5 Within the Study Area there are two key rivers, Afon Dwyryd which flows from the north-west and Afon Glaslyn which flows from the north. The rivers meet on sandy shallow delta in the south east of the Study Area before joining the sea. In the centre of the Study Area a spur of landform divides the valleys of the Glaslyn and the Dwyryd. The Glaslyn valley is a broad, steep sided valley much of which was previously tidal marsh, reclaimed due to the construction of Williams Madock's Cob (The Cob) in 1811. As a result, the valley floor is latticed with drainage channels and extremely flat, contrasting starkly with foothills of the Snowdonia which form the valley sides. The Dwyryd Valley (otherwise known as the lower section of the Vale of Ffestiniog) is a much narrow steep sided river valley.

6.6.6 The lower slopes from a number of mountain ranges, which form part of the Snowdonia National Park, intersect with the Study Area. These are the Rhinog Mountains to the south-east, the Moel Hebog uplands to the north-west and Y Moelwynion to the north-east. The isolated coastal hill of Moel-y-Gest sits on the eastern periphery of the Study Area south of Porthmadog.

Landcover and Landscape Pattern

6.6.7 A key facet of the character of the Study Area is its diverse landcover and landscape pattern reflecting the varied topography of the landscape. In the centre and east of the Study Area, the sandy deltas of the Glaslyn and Dwyryd rivers meet, forming the combined delta of Traeth Bach. On the western edge of the Traeth Bach and north of the Cob, rough salt marshes are crisscrossed with drainage channels and used for seasonal rough grazing. Within the Glaslyn valley and on the western fringes of Traeth Bach, there is a pattern of medium sized, regular fields on the flat valley floor used predominantly for grazing.

6.6.8 The Study Area has relatively high levels of tree cover (as illustrated in Figure 6.8). Woodland is generally concentrated on the steep slopes of the valley sides. Much of the deciduous woodland in this location is classified as Ancient Woodland. On both sides of the steep Dwyryd valley, the upper slopes are utilised for coniferous plantation. Although woodland is generally confined to the valley sides, there are some notable exceptions, such as the woodland concentrated around Portmeirion, on the lower slopes of Moel-y-Gest, fragments within the Glaslyn valley and plantation at Morfa Harlech.

6.6.9 Landcover above the woodland in the highest parts of the Study Area is characterised by rough heath and grasses interspersed with rocky outcrops. There are significant areas of Open Access Land clustered on the higher slopes of the four upland zones in the Study Area of the Rhinog Mountains, Moel Hebog range, Y Moelwynion and Moel y Gest.

Settlement and Infrastructure

6.6.10 Figure 6.9 illustrates the distribution of settlement and infrastructure throughout the Study Area.

6.6.11 The small coastal town of Porthmadog is the largest settlement in the Study Area, located east of Traeth Bach. South of Porthmadog are the small seaside village of Borth Y Gest and a number of extensive static caravan sites looking out across Tremadoc Bay. The second largest settlement is Penrhyndeudraeth, another small town situated on the landform which divides the Dwyryd and Glaslyn estuaries. The A487 runs through Penrhyndeudraeth and connects it to the nearby small village of Minffordd. On the southern extent of this spur of landform, is the tourist destination and Registered Park and Garden of Portmeirion, an Italianesque model village looking over the Dwyryd estuary.

6.6.12 In the east of the Study Area is the small village of Tremadog, closely associated with Porthmadog. Within the Glaslyn Valley there are scattered clusters of residencies on the edges of the valley floor, such as the small hamlets of Prenteg and Garreg. There are a few isolated properties in the centre of the valley but generally the valley floor is largely uninhabited.

6.6.13 To the south-east of the Dwyryd estuary, there are a number of small settlements located along the A497, the largest of which is the village of Talsarnau. The small hamlet of Cilfor is located adjacent to the bridge of Pont Briwet on a steeply rising slope. To the south west of Talsarnau the small but dispersed hamlet of Ynys is

situated on the banks of Traeth Bach. Throughout the Study Area there are also scattered isolated residencies.

6.6.14 Main roads are also identified within Figure 6.9. The A497 runs broadly east-to-west through the Study Area, connecting the Llŷn Peninsula to Minffordd via The Cob and Porthmadog. The A487 runs from Bangor and Caernarfon in the north through Minffordd and Porthmadog to Snowdonia National Park.

6.6.15 The A498 and the A4085 run along the bottom the west and east sides of the Glaslyn Valley, heading northwards into the heart of the National Park via Prenteg. The A496 traverses the eastern side of the Dwyryd and Traeth Bach estuaries, up the Dwyryd valley into the Vale of Ffestiniog. Elsewhere, there is a limited network of local roads, lanes and access tracks.

6.6.16 The Study Area contains several railway lines. The Aberystwyth and Welsh Coast Railway ultimately connects the Study Area (via its station stops at Porthmadog, Penrhyndeudraeth and Minffordd) with the north-western coast of Wales, running from Pwllheli to Aberystwyth. The Welsh Highland Railway runs northwards from Porthmadog to Caernarfon. The Ffestiniog Railway, also a heritage railway, runs from Porthmadog to Blaenau Ffestiniog. There is also a short reconstructed section of heritage railway the Welsh Highland Heritage Railway.

Energy Infrastructure

6.6.17 At the western edge of the Study Area is the Wern Sealing End Compound (SEC). This marks the end of a section of 400 kV overhead line (OHL) running from the Pentir Substation roughly 30km to the north. At Wern the line is undergrounded, remerging approximately 5.5km to the east at the Garth SEC. From Garth the OHL crosses the Dwyryd estuary and enters the Snowdonia National Park. The OHL continues to head east running between the distinctive rocky landform of Y Garth and then oversailing the Llyn Tecwyn Uchaf Reservoir. At this point the OHL exits the Study Area.

Recreational Landscape

6.6.18 The entire Study Area is a popular destination and sees high levels of recreational use. The four main upland areas all have considerable expanses of Open Access land. There is a strong network of PRoW throughout the Study Area, particularly in the east, on the lower slopes of the Rhinog Mountains. Figure 6.10 illustrates the density of PRoW and Open Access Land in the Study Area.

6.6.19 The Wales Coastal Path traverses the Study Area entering from the east at Morfa Harlech and exiting the Study Area south-west of Porthmadog at the mouth of the Traeth Bach estuary. National Cycle Routes (NCR) 8 and 82 pass through the Study Area. NCR 8 enters from the south of the Study Area, crosses Pont Briwet and Britannia Terrace (the Cob) and exits to the east of the Study Area. NCR 82 begins at Penrhyndeudraeth and follows the route of the A4085. The two heritage railways and the model village of Portmeirion further contribute to the appeal of the area as a tourist destination.

Landscape Designations

6.6.20 Information regarding the baseline landscape conditions including designations features discussed below are shown on Figure 6.1.

Snowdonia National Park

6.6.21 Approximately 70% of the Study Area falls within the boundaries of Snowdonia National Park. The Snowdonia National Park is the largest national park in Wales,

incorporating the Snowdon Mountain Mastiff and stretching from Aberdyfi in the south, to Conwy Bay in the north.

6.6.22 The Snowdonia National Park Management Plan 2010-2015 identifies the special qualities which define the character of Snowdonia National Park. These special qualities indicate why the Snowdonia National Park is so highly valued and justify its level of designation (special qualities in bold are considered to be particularly relevant to landscape of the Study Area):

- **The diversity of high quality landscapes and coastal areas within a small geographic area – ranging from coast to rolling uplands to the rugged mountains for which Snowdonia is famed.**
- The robust sense of community cohesion, belonging and vibrancy which combine to give a strong 'sense of place'.
- Continuing vibrancy of the Welsh language as the primary language in many social and professional environments. This aspect is evident in local place names that reflect the area's cultural heritage.
- **An area which has inspired some of the nation's most notable culture, folklore, art, literature and music, an influence which continues to the present day**.
- **The opportunity for people to understand and enjoy the National Park actively, whilst maintaining areas of tranquillity and solitude, thus promoting aspects of health, well-being and personal reflection.**
- **Extensive opportunities for recreation, leisure and learning for people of all ages and ability**.
- **Landscapes and townscapes which chart human interaction over centuries, from Neolithic times to the present day. This is evident in archaeological remains, place and field names, oral and written history and present day land management practices. Snowdonia's architectural heritage is reflected in the density of Listed Buildings and the wider historic environment; complex, varied and renowned geology, vital in influencing the disciplines of geology and geography internationally**.
- Varied biodiversity reflecting Snowdonia's landscapes, geology, land management practices and climate. Some species and habitats are of national and international significance, for example species which are remnants of the last Ice-Age, providing a glimpse of semi-Arctic habitats. Snowdonia is the most southerly point in the UK for many such species.

6.6.23 The above identified special qualities of the National Park are currently under review. Pages 14-15 of Cynllun Eryri - Snowdonia National Park Partnership Plan (Consultation Document 2018) proposes updated descriptions of the special qualities. These do not deviate greatly from the current list though there is a stronger emphasis on world renowned geology.

Non-Statutory Landscape Designations

6.6.24 Special Landscape Areas (SLAs) are non-statutory designations 'used to categorise sensitive landscapes'. A review of SLAs in Gwynedd and Anglesey was carried out in 2012 to justify the inclusion of the SLAs in local planning policy. This study identified the key characteristics justifying the designation of these areas. There are two SLAs within the Study Area and their identified key characteristics are:

02. Porthmadog & Tremadog Bay SLA

- Distinctive, scenic and varied landscape forming transition from National Park to the coast;
- Strong rural character;
- Significant proportion of the area scores highly across the combined aspects scoring >High (as well as the overall evaluation for Visual & Sensory);
- Setting to the National Park;
- Could be future pressures from tourism-led development around Morfa Bychan and infrastructure developments around Porthmadog; and
- The SLA provides an important function as a setting and coastal 'gateway' to Snowdonia.

03. Glaslyn & Dwyryd Estuary Landscapes SLA

- Distinctive area of flat, reclaimed farmland and estuarine habitats (including open water): culturally and visually distinctive;
- Scores moderately across the combined LANDMAP aspects (those scoring >High), particularly around Portmeirion and the water's edges;
- Outside developed areas, scores 'High' in LANDMAP Visual & Sensory aspect, and 'Outstanding' around Portmeirion;
- Magnificent views towards the Cnicht and Moelwyn Mountains;
- Important setting to the National Park; and
- Flat area likely to be under pressure for further development (including recreation/ tourism) on edges of settlements.

Landscape Character

6.6.25 Landscape character assessments and seascape character assessments are used to define areas of distinct shared characteristics and perceptual qualities within the landscape and seascape. From this, judgments can be drawn on how well areas can accommodate change.

6.6.26 In Wales, there is a spectrum of detail in relation to landscape and seascape character assessments, ranging from National Landscape Character Areas (NLCAs) to small scale LANDMAP[6] Visual and Sensory Aspect Areas (VSAAs). All the key characteristics of the landscape and seascape character areas found in the Study Area are recorded in full in Appendix 6.B. The locations of these areas can be found in Figures 6.11 and 6.12.

[6] LANDMAP is the formally adopted methodology for landscape assessment in Wales. LANDMAP is an all Wales Geographic Information System (GIS) based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent dataset. LANDMAP comprises five spatially related datasets (layers) – Geological Landscape, Landscape Habitats, Visual and Sensory, Historic Landscape and Cultural Landscape. Together these identify what gives a particular area its sense of place, what makes it distinctive and what types of change and pressures the landscape might be sensitive to. Information on each is detailed in the LANDMAP Guidance Note 3: Guidance for Wales. Each of the five spatial layers is subdivided into discrete geographical units (GIS polygons) referred to as aspect areas. Each mapped aspect area is defined by its recognisable landscape characteristics and qualities. Accompanying each aspect area is a description (Collector Survey Record) which describes and documents the landscape character, qualities and features. Management recommendations are also provided.

6.6.27 Within this range of landscape character information, the local landscape character assessments produced by Snowdonia National Park and Gwynedd Council have been selected on which to base the appraisal. The LANDMAP VSAAs provide a greater level of detail, but as 40 VSAAs intersect with the Study Area, this was considered too great a level of detail for the appraisal. The VSAAs broadly correspond with the landscape character areas and as such have been cross referenced and used to determine the value of each area. The ten VSAAs in the immediate vicinity of the proposals have been considered in greater detail with regard to the Tunnel Head Houses (tunnel head houses) and Sealing End Compound (SEC).

National Landscape Character Assessment

6.6.28 The Study Area is divided between two National Landscape Character Areas; NLCA 5 Tremadoc Bay and NLCA 6 Snowdonia (as shown on Figure 6.11).

6.6.29 Within the Study Area NLCA 5 Tremadoc Bay encompasses the banks of Tremadog Bay, the Dwyryd Estuary and the Glaslyn Estuary, as well as the broad, flat Glaslyn Valley. The NLCA consists of a coastal landscape of beaches, dunes and marshland backed by lowland pastoral sheep grazing.

6.6.30 NLCA 6: Snowdonia is an upland mountainous landscape, characterised by dramatic, angular skylines and a sense of wilderness. The key forms of landcover in the NLCA are typical of upland areas, with a mixture of sheep grazing, forestry, heather moorland and moorland grassland.

Snowdonia National Park Seascape Assessment

6.6.31 The Snowdonia National Park Seascape Assessment divides the estuarine seascape further into four Seascape Character Areas (SCAs); SCA 19 Criccieth to Mochras; SCA 20 Porthmadog and Glaslyn Estuary; SCA 21 Dwyryd Estuary and Morfa Harlech; and SCA 33 Tremadog Bay (as shown on Figure 6.12).

6.6.32 The assessment identifies the differences between the open, strongly coastal characteristics of the SCA 19 Criccieth to Mochras and 33 Tremadog Bay, with the more enclosed, inland SCA 20 Porthmadog and Glaslyn Estuary and SCA 21 Dwyryd Estuary and Morfa Harlech.

Gwynedd Landscape Strategy

6.6.33 The one LCA defined within the Gwynedd Landscape Strategy which falls within the Study Area is LCA 9 Porthmadog. It covers much of the west of the Study Area, incorporating the floor of the Glaslyn Valley, Moel Y Gest, the Glaslyn Estuary and the landform on which Penrhyndeudraeth is located. The Gwynedd Landscape Strategy states that the LCA represents an important gateway into Snowdonia National Park and sees the area as a 'buffer zone' to the National Park; as such the LCA is considered to form part of the setting of the National Park. The key characteristics of the area, as identified by the Gwynedd Landscape Strategy are listed in Appendix 6.B.

6.6.34 LANDMAP VSAAs which fall broadly within LCA 9 Porthmadog are:

- GWNDDVS062 Traeth Mawr;
- GWNDDVS063 Penrhyndeudraeth Environs;
- GWNDDVS064 Moel-y-Gest;
- GWNDDVS069 Penrhyndeudraeth;
- GWNDDVS070 Ynys Cyngar;

- GWNDDVS071 Porthmadog & Tremadog;
- GWNDDVS075 Black Rock Levels;
- GWNDDVS080 Marsh;
- GWNDDVS081 Traeth Bach;
- GWNDDVS088 Portmeirion;
- GWNDDVS089 Morfa Bychan; and
- GWNDDVS091 Prenteg Margins.

6.6.35 21% of the part of LCA 9 Porthmadog that falls within the Study Area has been given an overall VSAA evaluation of Moderate, 75% has been given an overall evaluation of High and 4% has been given an overall evaluation of Outstanding.

Snowdonia Landscape Character Assessment

6.6.36 Six landscape character areas fall within the Study Area, as defined in the Snowdonia Landscape Character Assessment. These are LCA04 Moel Hebog (Moel Hebog Uplands) (only a very small part lies within 3km of the Proposed Project so is not considered further in the appraisal); LCA05 Y Moelwynion (Afon Glaslyn & Ysgafell) (only a small part falls within 5km of the Proposed Project so is not considered further in the appraisal); LCA08 Dyffryn Y Ddwyryd (Vale of Ffestiniog); LCA10 Morfa Harlech; LCA12 Cefnwlad Arfordir Ardudwy (Ardudwy Coastal hinterland); and LCA13 Y Rhinogau (Rhinog Mountains). The key characteristics of these landscape areas, as identified by the Snowdonia Landscape Character Assessment, are detailed in the paragraphs below.

6.6.37 LCA08 Dyffryn Y Ddwyryd (Vale of Ffestiniog) covers large proportion of the north eastern corner of the Study Area. The key characteristics of this area are listed in Appendix 6.B.

6.6.38 LANDMAP VSAAs which fall broadly within this LCA are:

- SNPVS012 Conifer Plantation;
- SNPVS036 Coed Ystymgwern Coastal Farmland;
- SNPVS039 Vale of Ffestiniog;
- SNPVS042 Gellilydan;
- SNPVS048 Snowdon Uplands;
- SNPVS050 Croesor/Rayd;
- SNPVS052 Garreg; and
- SNPVS117 Gellilydan Hills.

6.6.39 The Snowdonia Landscape Character Assessment states that National Grid pylons form prominent man-made features at the mouth of the Dwyryd.

6.6.40 26% of the part of LCA08 Dyffryn Y Ddwyryd (Vale of Ffestiniog) that falls within the Study Area has been given an overall VSAA evaluation of Moderate, 14% has been given an overall evaluation of High and 60% has been given an overall evaluation of Outstanding.

6.6.41 A large proportion of LCA10 Morfa Harlech falls within the south of the Study Area. This LCA overlaps with the edge of LCA 9 Porthmadog as defined by the Gwynedd Landscape Strategy. The key characteristics of this LCA10 Morfa Harlech listed in Appendix 6.B:

6.6.42 LANDMAP VSAAs which fall broadly within this LCA are:

- GWNDDVS081 Traeth Bach;
- SNPVS038 Morfa Harlech;
- SNPVS113 Harlech Coast Farmland;
- SNPVS114 Ty Cerrig; and
- SNPVS115.

6.6.1 79% of the part of LCA10 Morfa Harlech that falls within the Study Area has been given an overall VSAA evaluation of Moderate and 21% has been given an overall evaluation of High.

6.6.2 Rising up from the flat landform of LCA10 Morfa Harlech, LCA12 Cefnwlad Arfordir Ardudwy (Ardudwy Coastal hinterland) forms the lower slopes of the Rhinog Mountains encompassing the shift between coastal and upland areas. Its key characteristics are listed in Appendix 6.B:

6.6.3 LANDMAP VSAAs which fall broadly within this LCA12 are:

- SNPVS036 Coed Ystymgwern coastal farmland; and
- SNPVS117 Gellilydan Hills.

6.6.4 42% of the part of LCA12 Cefnwlad Arfordir Ardudwy (Ardudwy Coastal hinterland) that falls within the Study Areahas been given an overall evaluation of Moderate and 58% has been given an overall evaluation of High.

6.6.5 LCA13 Y Rhinogau (Rhinog Mountains) is an upland area falls within the south east of the Study Area. Its key characteristics are listed in Appendix 6.B:

6.6.6 LANDMAP VSAAs which fall broadly within this LCA are:

- SNPVS031 Rhinog-upland;
- SNPVS032 Rhinog Mountains;
- SNPVS036 Coed Ystymgwern coastal farmland;
- SNPVS040 Bronaber; and
- SNPVS04 Trawsfynydd.

6.6.7 30% of the part of LCA13 Y Rhinogau (Rhinog Mountains) that falls within the Study Area has been given an overall evaluation of Moderate, 59% has been given an overall evaluation of High and 11% has been given an overall evaluation of Outstanding.

LANDMAP Visual and Sensory Aspect Areas

6.6.8 LANDMAP is a landscape planning resource which records landscape characteristics, qualities and influences across the Welsh landscape. It includes five spatial datasets, one of which divides the landscape into Visual and Sensory Aspect Areas (VSAAs).

6.6.9 The East Tunnel Head House and Sealing End Compound (SEC) would be located within SNPVS036 Coed Ystymgwern Coastal Farmland, which is summarised as: '*Mixture of rough grazing/ woodland clumps/ dry stone walls. Strong coastal feel from borrowed view of coast – adds to sense of place'*. The overall evaluation for this VSAA is High.

6.6.10 The West Tunnel Head House would be located in GWNDDVS063 Penrhyndeudraeth environs which is summarised as: '*Steeply rising rugged hills*

either side of Penrhyndeudraeth rising to 96mAOD to west and 60m to the east between Dwyryd estuary to the south and Traeth Nawr to the north. Small-scale, irregular fields and oak woodland on rolling landform allows scenic views to the north and south west although this is set against the industrial based settlement in between and the functioning and disused quarries. The busy main A497 also reduces tranquillity. Penrhyndeudraeth and Minffordd, plus larger modern developments in between, loosely defined as linear settlement dominated by busy road A487overlooking the Afon Dwyryd estuary in east of county. Set on small ridge and valley topography, with development following the slopes giving interest. Ffestiniog Railway adds interest. Glimpsed views of Snowdon uplands adds to sense of place, as do the national park offices on the western outskirts of the town.' The overall evaluation of the VSAA is Moderate.

Visual Baseline

Visibility Overview

6.6.11 The following text should be read in conjunction with Appendix 6.C. Visual amenity in the Study Area is broadly divided into three categories; views experienced from the estuaries and their peripheries; views experienced from the flat farmland of the Glaslyn Valley floor; and views experienced from the upland areas.

6.6.12 From the Dwyryd and Glaslyn estuaries there are open, panoramic views of wide sand banks and salt marshes set against the dramatic backdrop of the surrounding mountains (refer to viewpoints A, C, J, K L, M, O, R and S, Appendix 6.C). The composition of views is generally strong and simplistic, formed mainly of natural elements, with the exception of settlements visible on the opposite banks and the OHL which cuts across the Dwyryd estuary. The island of Ynys Gifftan, which sits in the upper Dwyryd estuary, forms a key feature in many views from the Dwyryd estuary banks (refer to viewpoint L, Appendix 6.C). The large scale of views and the contrast between the abruptly flat estuary and towering upland surrounds results in valued views which play a part in attracting tourists to the area.

6.6.13 The farmland within the Glaslyn Valley and on the edge of the estuaries is very flat which sometimes limits the extent of views (refer to viewpoints B and D, Appendix 6.C). As a result, despite the proximity of the coastline, there is a limited visual connection with it, particularly within the Glaslyn Valley where views of the sea are foreshortened by the Cob. The surrounding mountains and valley sides tend to form the backdrop of and often dominant features within views. On the whole, built form and human influence is limited, with the exception of the edge of Porthmadog and the visual detractors of Minffordd Quarry, Garth SEC and the 4ZC OHL (refer to viewpoints D, E, G, H, I, J, K, L, M, N, O (east), O (west), T, U, V and W, Appendix 6.C).

6.6.14 From the estuary banks and valley floor the topography rises steeply to the north east and west. As it does, views become increasingly expansive and far ranging, as illustrated by viewpoints C, J, K, M and O. The extents of both estuaries form part of the view along with Tremadog Bay and the surrounding Snowdonia Mountains.

6.6.15 The expansive nature of the landscape in the Study Area results in a large proportion of large scale, panoramic views. More enclosed views within the Study Area are perceived from within woodland on the lower slopes and from within the settlements. The combination of garden vegetation and built form limits the extent of views from within the centre of settlements, communities along the edge of settlements or on higher ground still perceive some extensive views.

Visual Receptors

6.6.16 Visual receptors are defined by GLVIA3 as '*the people who will be affected by changes in views or visual amenity at different places'*.

6.6.17 The key types of receptors are residential, people experiencing views from their local communities; recreational, people experiencing views while walking, cycling or using the landscape in other ways for a recreational purpose; and road and rail users, who will experience views as they travel through the landscape.

Communities

6.6.18 The following communities fall within the ZTV in the Study Area:

- Community in and around Porthmadog;
- Community in and around Borth-y-Gest;
- Community in and around Penrhyndeudraeth;
- Community in and around Minffordd;
- Community in and around Tremadog (The ZTV indicates that views from here would be very limited. Site visits concur, therefore views from here are not considered further in this chapter);
- Community in and around Cilfor;
- Community in and around Talsarnau; and
- Community in and around Ynys.

Recreational Receptors

6.6.19 The following recreational receptors fall within the ZTV in the Study Area:

- Walkers on the Wales Coastal Path;
- Users of PRoW around Porthmadog and Borth-y-Gest;
- Users of PRoW in the upland areas in the north west of the Study Area;
- Users of PRoW in the upland areas in the north east of the Study Area;
- Users of PRoW on the Minffordd Peninsula;
- Users of PRoW in and around Penrhyndeudraeth;
- Users of PRoW on the eastern bank of the Dwyryd Estuary (south of Cilfor and west of the A486 and B4573);
- Users of PRoW on the lower slopes of the Rhinog Mountains (east of the A486 and B4573, including PROW Talsarnau Rhif 52);
- Users of Open Access Land on and around Moel-y-Gest;
- Users of Open Access Land in the upland areas in the north west of the Study Area;
- Users of Open Access Land in the upland areas in the north east of the Study Area;
- Users of Open Access Land around Penrhyndeudraeth;
- Users of Open Access Land on the eastern bank of the Dwyryd Estuary (west of the A486);

- Users of Open Access Land on the lower slopes of the Rhinog Mountains (east of the A486);
- Cyclists on NCR 8;
- Visitors to Portmeirion;
- Visitors to Gwaith Powdwr Nature Reserve;
- Visitors to the Cob, Porthmadog;
- Tourists travelling on the Tourists travelling on the Welsh Highland Railway and Welsh Highland Heritage Railway; and
- Tourists travelling on the Ffestiniog Railway.

Road and Rail Receptors

6.6.20 The following road and rail receptors fall within the ZTV in the Study Area:

- Drivers and passengers on the A487;
- Drivers and passengers on the A497;
- Drivers and passengers on the A498 (The ZTV indicates that views from here would be limited. Site visits concur, therefore views from here are not considered further in this chapter);
- Drivers and passengers on the A4085 (The ZTV indicates that views from here would be possible; however, site visits revealed that built form and vegetation largely restrict views, therefore views from here are not considered further in this chapter);
- Drivers and Passengers on local road between Penrhyndeudrath and Cilfor (including Pont Briwet);
- Drivers and passengers on the A496; and
- Passengers on the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line).

6.7 Key Parameters for Appraisal

6.7.1 The design considerations and description of the Proposed Project together with the design rationale is set out in Chapter 2 (Project Description) and Chapter 3 (Environmental Appraisal Process).

6.7.2 The LVA is based on the following assumptions:

- The Proposed Project includes embedded landscape and visual mitigation proposals as shown on Figure 2.2;
- The West and East Tunnel Head Houses would be contained within a 2.4m high welded mesh security fence with and additional 1m electric fence;
- The tallest SEC equipment associated with infrastructure to the east of the Dwyryd Estuary would be 8 m.
- Existing trees and scrub lost due to the road and verge construction works (verge widening- if required) shown on Figure 2.1 during construction would be replaced following construction.
- The footprint and surfacing of Garth SEC would remain the same as existing and there would be no change the existing security fence;

- A section of wood pole overhead line would be diverted underground (under existing hardstanding access tracks) to the west of the Dwyryd Estuary.
- The land affected by the underground buried cable connection from Garth SEC to the West Tunnel Head House would be reinstated as existing with the exception of any affected trees as it will not be possible to reinstate trees over the buried cable (i.e. field boundaries and grassland would be reinstated on a like for like basis as a minimum);
- The land affected by the removal of the existing VIP Subsection (including temporary access routes, laydown areas and partial removal of pylon foundations) would be reinstated as existing (i.e. field boundaries and grassland/ vegetation would be reinstated on a like for like basis as a minimum);
- The launch/ drive shaft would be to the west of the Dwyryd estuary;
- Shaft construction for both the west and east would be 6 months; this represents the worst case scenario for each side though in reality the duration on one side would be 3 months;
- All tunnel, tunnel head house and SEC construction work would take 4 years (the Project Description states start date in 2021 and completion 2025);
- Overhead line removal work would take place in 2026 and would be very short term in duration (no specific timescales are stated in the Project Description other than approximately 14 days for the removal of pylon 4ZC031, approximately 17 days for pylon 4ZC030R and approximately 28 days for the redundant foundations of pylon 4ZC030); and
- During operation there would be a requirement for an inspection at each tunnel head house site on an infrequent basis which would involve the very short term use of a crane or davit arm.

Assumed Growth Rates

6.7.3 The assumed growth rates included below have been used as a guide for appraisal purposes when considering the proposed landscape replacement/ mitigation planting at year 1 and year 15. These are purely an indicative illustration adapted from information from commercial nurseries. Table 6.5 below presents the assumptions made in relation to average growth rates for a selection of trees planted at 450 mm whips and the subsequent paragraph makes assumptions of the average growth of trees planted as larger specimens such as 3.5-4.5 m standards. These rates assume good cultivation and management.

Table 6.5: Assumed Tree & Shrub Growth Rates (Planted as 450mm whips)

Indicative Species	Subsequent years average annual growth	Assumed Minimum Height at Year 15
Oak	230 mm	3670 mm
Willow	600 mm	8850 mm
Hawthorn	450 mm	6750 mm
Blackthorn	300 mm	4650 mm
Birch	400 mm	6050 mm

6.7.4 It is assumed that any tree species which may be planted at standard sizes (i.e. 3.5-4.5 m) would grow at a rate of 300 mm per year and therefore would achieve a minimum height between 7.5-9 m by operation year 15.

6.8 Predicted Impacts

Potential Sources of Impacts

6.8.1 Tables 6.6 to 6.8 outline the potential sources of likely impacts during the construction and operation and decommissioning of the Proposed Project. The predicted impacts on landscape and visual resources as a result include the following:

- Short term/ temporary and reversible, direct loss or alteration of landscape elements (e.g. changes to landform, removal of trees, scrub, fields, mire vegetation, field boundary features including stone walls, hedgerows and hedgerow trees).
- Long term/ permanent, direct loss or alteration of landscape elements (e.g. changes to landform, removal of trees, scrub, mire vegetation, field boundary features including stone walls, hedgerows and hedgerow trees).
- Changes to visual amenity through the removal or introduction of components in the landscape; and
- The removal or alteration of attributes of the landscape for which it may be valued.

6.8.2 There may be requirements for construction site lighting during the winter months; however, the CEMP contains guidance on measures to avoid unnecessary impacts.

6.8.3 There may be requirements for construction site lighting during the winter months; however, the CEMP contains guidance on measures to avoid unnecessary impacts.

6.8.4 Lighting may be also required at the West Tunnel Head House, Garth SEC, the East Tunnel Head House and SEC during operation; however, these would only be lit in low light conditions during periods of maintenance, which are anticipated to be infrequent. Although this may be a source of night time impact, it is not considered that it would give rise to significant effects due to the short term and temporary nature of any lighting that may be required in combination with the measures outlined in the CEMP.

Table 6.6: Sources of Landscape and Visual Impacts during Construction

Source of Impacts During Construction	Infrastructure Western Side of the Dwyryd Estuary	Infrastructure Eastern Side of the Dwyryd Estuary	Removal of Existing Infrastructure (VIP subsection)
Site clearance: works affecting vegetation including tree & scrub removal	Yes	Yes	Yes
Site clearance: boundary removal (stone walls/ hedgerows)	Yes		
Topsoil stripping, earthworks and excavation	Yes	Yes	Yes
Construction and removal of temporary access roads/ trackway	Yes	Yes	Yes
Construction and removal of temporary bridges			Yes
General construction activities including the movement of large scale construction equipment (ie. Cranes), construction compounds and temporary buildings/ site offices required for construction, parking on site and materials stockpiles	Yes	Yes	Yes
Erection of temporary scaffolding			Yes
Installation of underground cables	Yes		
Movement of construction related traffic including delivery and removal of material to and from site, off-site road traffic including workers travelling to and from site	Yes	Yes	Yes
Temporary hoardings and/or security fencing or signage	Yes	Yes	Yes
Road and verge construction works (verge widening if required) shown on Figure 2.1 during construction	Yes		
Construction of permanent access roads (including bellmouths from existing highways)	Yes	Yes	
Construction of replacement Pylon 4ZC027R		Yes	
Construction work associated with alterations to existing Garth SEC	Yes		
Removal of approximately 3.4 km of 400 kV (and 132 kV) OHL (the VIP subsection) and 10 existing pylons and removal of a further Pylon 4ZC027 which will be replaced by 4ZC027R, some with the use of a hydraulic crane and the activity associated with this			Yes
Removal of the gantries at existing Garth SEC			Yes
Diversion/ undergrounding of third party services	Yes	Yes	

Table 6.7: Sources of Landscape and Visual Impacts during Operation

Source of Impacts During Operation	Infrastructure Western Side of the Dwyryd Estuary	Infrastructure Eastern Side of the Dwyryd Estuary	Removal of Existing Infrastructure (VIP subsection)
The introduction of a tunnel head house d associated hard surface permanent access road and compound into the landscape	Yes	Yes	
Removal of approximately 3.4 km of 400 kV (and 132 kV) OHL (the VIP subsection) and 10 existing pylons and removal of a further Pylon 4ZC027 (which would be replaced), some with the use of a hydraulic crane and the activity associated with this			Yes
Introduction of replacement pylon 4ZC027R		Yes	
Modifications to the existing Garth Sealing End Compound – the introduction of new operational equipment	Yes		
The intermittent, temporary addition of a crane at the tunnel head houses during inspections	Yes	Yes	
Effects of embedded landscape and visual mitigation measures, particularly new planting	Yes	Yes	

Table 6.8: Sources of Landscape and Visual Impacts during Decommissioning

Source of Impacts During Decommissioning	Infrastructure Western Side of the Dwyryd Estuary	Infrastructure Eastern Side of the Dwyryd Estuary	Removal of Existing Infrastructure (VIP subsection)
Site clearance, tree/ scrub/ boundary removal	Yes	Yes	Yes
Temporary laydown areas and site offices, parking on site to facilitate construction activities	Yes	Yes	
General construction activities including movement of large-scale construction equipment	Yes	Yes	
Temporary hoardings and/or security fencing or signage	Yes	Yes	
Movement of construction related traffic including removal of material from site	Yes	Yes	
The removal of the Tunnel Head House (including the access road and hard surfacing) and reinstatement of vegetation	Yes	Yes	
The removal of terminal pylon 4ZC037R		Yes	

Predicted Impacts of Tunnel Head House, Sealing End Compounds, Terminal Pylon and 400kV Cable (Undergrounding)

Infrastructure Western Side of the Dwyryd Estuary

6.8.5 Table 6.9 below outlines the predicted landscape and visual impacts of infrastructure to the western side of the Dwyryd Estuary in relation to receptors and within the phases construction, operation and decommissioning.

Table 6.9: Potential Landscape and Visual Impacts of Infrastructure Western Side of the Dwyryd Estuary

Potential Impact	Description	Receptor	Phase		
			C	O	D
Short-term, direct loss and/ or alteration of landscape elements	The potential for short-term, direct loss/ changes to landscape elements considered to be temporary/ reversible.	Snowdonia National Park			
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas			

Potential Impact	Description	Receptor	Phase		
			C	O	D
	Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform. Assumes loss/ changes could be reversible, with replacement either in-situ or elsewhere within the site boundary.	Gwynedd Landscape Character Areas	✓		✓
Medium-term, direct loss and/ or alteration of landscape elements	The potential for medium-term, direct loss/ changes to landscape elements considered to be temporary/ reversible. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform. Assumes loss/ changes could be reversible, with replacement either in-situ or elsewhere within the site boundary.	Snowdonia National Park			
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas			
		Gwynedd Landscape Character Areas	✓		
Long term, direct loss and/ or alteration of landscape elements	The potential for long term, direct loss/ changes to landscape elements, considered permanent. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform.	Snowdonia National Park			
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas			
		Gwynedd Landscape Character Areas	✓	✓	✓
Indirect change due to perception of loss and/ or alteration of landscape elements	There is potential for the character of the landscape to be indirectly affected as a result of the perception of activities and/ or the presence of infrastructure (albeit outside the boundary of the receptor).	Snowdonia National Park	✓	✓	✓
		Gwynedd Special Landscape Areas	✓	✓	✓
		Snowdonia Landscape Character Areas			
		Gwynedd Landscape Character Areas			
Short term/ temporary	The potential for short term changes to views that are considered to be reversible	Communities	✓		✓
		Wales Coast Path	✓		✓

Potential Impact	Description	Receptor	Phase		
			C	O	D
effects on views	with reinstatement e.g. access tracks, compounds, boundaries etc. Potential short term effects of maintenance activities associated with the Proposed Project	Public Rights of Way	✓		✓
		Open Access Land			
		National Cycle Routes	✓		✓
		Tourist Attractions	✓		✓
		Roads and Rail	✓		✓
Medium term/ temporary effects on views	The potential for medium term changes to views that are considered to be reversible with reinstatement e.g. access tracks, compounds, boundaries etc.	Communities	✓		
		Wales Coast Path	✓		
		Public Rights of Way	✓		
		Open Access Land			
		National Cycle Routes	✓		
		Tourist Attractions	✓		
		Roads and Rail	✓		
Long term/ permanent effects on views	The potential for long term changes to views; including the effects from the introduction or removal of infrastructure over the lifetime of the Proposed Project.	Communities		✓	
		Wales Coast Path		✓	
		Public Rights of Way		✓	
		Open Access Land			
		National Cycle Routes		✓	
		Tourist Attractions		✓	
		Roads and Rail		✓	

Infrastructure Eastern Side of the Dwyryd Estuary

6.8.6 Table 6.10 below outlines the predicted landscape and visual impacts of infrastructure to the eastern side of the Dwyryd Estuary in relation to receptors.

Table 6.10: Potential Landscape and Visual Impacts of Infrastructure Eastern Side of the Dwyryd Estuary

Potential Impact	Description	Receptor	Phase		
			C	O	D
Short-term, direct loss and/ or alteration of landscape elements	The potential for short-term, direct loss/ changes to landscape elements considered to be temporary/ reversible. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform. Assumes loss/ changes could be reversible, with replacement either in-situ or elsewhere within the site boundary.	Snowdonia National Park	✓		✓
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas	✓		✓
		Gwynedd Landscape Character Areas			
Medium-term, direct loss and/ or alteration of landscape elements	The potential for medium-term, direct loss/ changes to landscape elements considered to be temporary / reversible. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform. Assumes loss/ changes could be reversible, with replacement either in-situ or elsewhere within the site boundary.	Snowdonia National Park	✓		
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas	✓		
		Gwynedd Landscape Character Areas			
Long term, direct loss and/ or alteration of landscape elements	The potential for long term, direct loss/ changes to landscape elements, considered permanent. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform.	Snowdonia National Park		✓	
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas		✓	
		Gwynedd Landscape Character Areas			
Indirect change due to perception	There is potential for the character of the landscape to be indirectly affected as a result of the perception of	Snowdonia National Park			
		Gwynedd Special Landscape Areas			

Potential Impact	Description	Receptor	Phase		
			C	O	D
of loss and/ or alteration of landscape elements	activities and /or the presence of infrastructure (albeit outside the boundary of the receptor).	Snowdonia Landscape Character Areas	✓	✓	✓
		Gwynedd Landscape Character Areas			
Short term/ temporary effects on views	The potential for short term changes to views that are considered to be reversible with reinstatement e.g. access tracks, compounds, boundaries etc. Potential short term effects of maintenance activities associated with the Proposed Project	Communities	✓		✓
		Wales Coast Path	✓		✓
		Public Rights of Way	✓		✓
		Open Access Land	✓		✓
		National Cycle Routes	✓		✓
		Tourist Attractions	✓		✓
		Roads and Rail	✓		✓
Medium term/ temporary effects on views	The potential for medium term changes to views that are considered to be reversible with reinstatement e.g. access tracks, compounds, boundaries etc.	Communities	✓		
		Wales Coast Path	✓		
		Public Rights of Way	✓		
		Open Access Land	✓		
		National Cycle Routes	✓		
		Tourist Attractions	✓		
		Roads and Rail	✓		
Long term/ permanent effects on views	The potential for long term changes to views; including the effects from the introduction or removal of infrastructure over the lifetime of the Proposed Project.	Communities		✓	
		Wales Coast Path		✓	
		Public Rights of Way		✓	
		Open Access Land		✓	
		National Cycle Routes		✓	
		Tourist Attractions		✓	
		Roads and Rail		✓	

Removal of Existing Infrastructure (VIP subsection)

6.8.7 Table 6.11 below outlines the predicted landscape and visual impacts of the removal of existing infrastructure (VIP subsection) in relation to receptors.

Table 6.11: Potential Landscape and Visual Impacts of Removal of Existing Infrastructure (VIP subsection)

Potential Impact	Description	Receptor	Phase		
			C	O	D
Short-term, direct loss and/ or alteration of landscape elements	The potential for short-term, direct loss/ changes to landscape elements considered to be temporary/ reversible. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform. Assumes loss/ changes could be reversible, with replacement either in-situ or elsewhere within the site boundary.	Snowdonia National Park	✓		
		Gwynedd Special Landscape Areas	✓		
		Snowdonia Landscape Character Areas	✓		
		Gwynedd Landscape Character Areas	✓		
Medium-term, direct loss and/ or alteration of landscape elements	The potential for medium-term, direct loss/ changes to landscape elements considered to be temporary/ reversible. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform. Assumes loss/ changes could be reversible, with replacement either in-situ or elsewhere within the site boundary.	Snowdonia National Park			
		Gwynedd Special Landscape Areas			
		Snowdonia Landscape Character Areas			
		Gwynedd Landscape Character Areas			
Long term, direct loss and/ or alteration of landscape elements	The potential for long term, direct loss/ changes to landscape elements, considered permanent. Loss and/ or changes to landscape elements such as trees, scrub, hedgerows, stone walls and landform.	Snowdonia National Park		✓	
		Gwynedd Special Landscape Areas		✓	
		Snowdonia Landscape Character Areas		✓	
		Gwynedd Landscape Character Areas		✓	

Potential Impact	Description	Receptor	Phase		
			C	O	D
Indirect change due to perception of loss and/ or alteration of landscape elements	There is potential for the character of the landscape to be indirectly affected as a result of the perception of activities and/ or the presence of infrastructure (albeit outside the boundary of the receptor).	Snowdonia National Park	✓	✓	
		Gwynedd Special Landscape Areas	✓	✓	
		Snowdonia Landscape Character Areas	✓	✓	
		Gwynedd Landscape Character Areas	✓	✓	

6.9 Summary of Effects

Landscape Effects During Construction

Landscape Effects of Infrastructure Western Side of the Dwyryd Estuary – During Construction

6.9.1 In view of the distance and sense of separation from **Snowdonia National Park**, it is not anticipated that the construction of infrastructure on the western side of the Dwyryd Estuary would have any notable impacts on the character or special qualities of this highly valued landscape.

6.9.2 The construction area of infrastructure to the western side of the Dwyryd Estuary would lie immediately adjacent to the **Glaslyn and Dwyryd Estuary SLA**. No notable impacts on the key characteristics of this SLA are anticipated as a result of construction as this SLA would not be directly affected. Some small areas of vegetation may be lost (due to requirements for verge widening during construction; however, appropriate species of native trees and scrub would be replanted following construction).

6.9.3 The construction works would have a direct impact on the immediate landscape character of **LCA 9 Porthmadog.** Within the LCA the construction works would be located within LANDMAP VSAA GWNDDVS063, Penrhyndeudraeth environs which has an overall moderate evaluation. LCA 9 Porthmadog is highly valued as it is considered part of the setting of Snowdonia National Park (as discussed in paragraph 6.6.32). The construction of the Proposed Project would affect the existing Garth SEC, small areas of roadside vegetation and flat agricultural fields in part of the LCA which has slightly lowered value (as reflected in the overall moderate VSAA evaluation). The susceptibility of the overall LCA to the Proposed Project is considered high. Susceptibility is locally reduced as this part of the LCA is already influenced by man-made developments and infrastructure such as the existing A497, Garth Quarry, Garth SEC,400 kV and 132 kV OHLs, which all locally reduce tranquillity. Taking the above into account with its high value, overall sensitivity of the LCA is considered high but is locally reduced in the area of the Proposed Project.

6.9.4 During construction there is likely to be a further reduction in sense of tranquillity in the local area due to the construction works associated with a substantial construction compound and working areas which would comprise associated earthworks, plant, storage of equipment and spoil, site offices and parking, cable installation corridor and modifications to the existing Garth SEC. A small amount of vegetation removal may be required to undertaken small sections of verge widening

and to install underground cables. Tree and hedgerow loss will be kept to a minimum, with any losses being replaced by new planting and compensated for by the proposed mitigation planting. The effect on character is considered to be localised, medium term (6 years) and reversible, with effects reducing with increasing distance and perceptibility of construction noise and movement from the construction site.

6.9.5 Overall, there would be a small to medium magnitude of effect on this high sensitivity landscape receptor.

Landscape Effects of Infrastructure Eastern Side of the Dwyryd Estuary - During Construction

6.9.6 The construction works would have a direct impact on a discrete part of **Snowdonia National Park** which is nationally designated, highly valued landscape (special qualities are outlined in section 6.6). Within the National Park the construction works would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland which has an overall high evaluation and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV OHLs which are considered visual detractors. The susceptibility of Snowdonia National Park to the Proposed Project is considered high overall. However, susceptibility is locally reduced due to the influence of the existing 400 kV and 132 kV OHLs and to a lesser extent the existing Cilfor water treatment works, which locally reduce tranquillity. Taking the above into account with its high value, overall sensitivity of the National Park is considered high, but locally reduced in the area of the Proposed Project.

6.9.7 Land rising to the east of the construction compound is classified in the Local Development Plan as a Section 3 Area of Natural Beauty[7]. The construction of the proposed Terminal Pylon 4ZC027R would fall just within the boundary of this Area of Natural Beauty which also includes several other pylons (these would remain in situ).

6.9.8 The perception of the construction compound and working areas would be contained within a low lying part of the landscape. Construction areas and activities would be surrounded on all sides by sharply rising landform; with the exception of a small area to the south west which is bounded by the A496 and Cilfor water treatment works and where the landform is also low lying. Vegetation and landform associated with the road and Cilfor water treatment works would however also limit the perception of construction works beyond the immediate area. The geographical extent of the influence of the construction would therefore be limited.

6.9.9 During construction there is likely to be a reduction in sense of tranquillity in the local area due to a substantial construction compound and working areas which would comprise associated earthworks, plant, storage of equipment, site offices and parking. Vegetation removal would be required to facilitate construction; however, tree and scrub loss would be kept to a minimum, with any losses being replaced by new planting and compensated for by the proposed mitigation planting. The effect of construction on character is considered to be localised, medium term (6 years) and reversible, with effects contained to a limited geographical area.

[7] Snowdonia National Park Authority, Eryri Local Development Plan (ELDP) 2007-2022 (2011), Section 3 of the Wildlife and Countryside (Amendment) Act 1985 placed a responsibility on each of the National Parks of England and Wales to prepare a map showing these areas of mountain, moor, heath, woodland, down, cliff or foreshore, the natural beauty of which the Authority considers it particularly important to conserve.

6.9.10 Overall, there would be a localised medium magnitude of effect on this high sensitivity landscape receptor.

6.9.11 The construction works would have a direct impact on the immediate landscape character of **LCA12 Cefnwlad Arfordir Ardudwy (Arddudwy Coastal Hinterland)** which falls entirely within Snowdonia National Park. Within the LCA the construction works would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland (as is described above in relation to Snowdonia National Park). In terms of effects of the Proposed Project on this LCA, they would be the same as is described for the National Park above, although the sensitivity of this LCA is considered slightly lower than the overall high sensitivity of the National Park. This is reflected in the text above in relation to the description of locally reduced sensitivity in the vicinity of the proposed infrastructure to the east of the Dwyryd Estuary. In terms of impacts on other LCAs, these are considered to be negligible due to the limited geographical extent of the influence of construction.

Landscape Effects of Removal of Existing Infrastructure (VIP Subsection) - During Construction

6.9.12 The construction works associated with the removal of the VIP subsection would have a direct impact within **Snowdonia National Park** which is nationally designated, highly valued landscape (special qualities are outlined in section 6.6). Within the National Park the works associated with the removal of three pylons would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland which has an overall high evaluation and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV OHLs which are considered visual detractors. The sensitivity of Snowdonia National Park to the Proposed Project is considered high overall (as discussed in paragraph 6.9.7). One of these pylons (Pylon 4ZC027) lies just outside an area classified in the Local Development Plan as a Section 3 Area of Natural Beauty[8]. During construction there is likely to be a very short term reduction in sense of tranquillity in the local area due to temporary access tracks, localised working areas, equipment and construction traffic. The effect of construction on character is considered to be localised, very short term (less than a year) and reversible, with effects contained to a limited geographical area. Overall, there would be a localised negligible to low magnitude of effect on this high sensitivity landscape receptor.

6.9.13 Construction works associated with the removal of four pylons of the VIP subsection (Pylons 4ZC030R, 4ZC031, 4ZC032 and 4ZC036) would directly affect the **Glaslyn and Dwyryd Estuary SLA**. In addition to this the SLA would also be directly affected by works related to the removal of the redundant foundations of former Pylon 4ZC030. No notable impacts on the key characteristics of this SLA are anticipated as a result of construction as this SLA due to the very short duration of the works which would be small in scale and limited in geographical extent.

6.9.14 The removal of the VIP subsection would directly affect the following LCAS:

- **LCA12 Cefnwlad Arfordir Ardudwy (Arddudwy Coastal Hinterland)** would be directly affected by the removal of two pylons (Pylons 4ZC027 and 4ZC029). Within this LCA the works associated with the removal of two pylons would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern

[8] Snowdonia National Park Authority, Eryri Local Development Plan (ELDP) 2007-2022 (2011), Section 3 of the Wildlife and Countryside (Amendment) Act 1985 placed a responsibility on each of the National Parks of England and Wales to prepare a map showing these areas of mountain, moor, heath, woodland, down, cliff or foreshore, the natural beauty of which the Authority considers it particularly important to conserve.

coastal farmland which has an overall high evaluation and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV OHLs which are considered visual detractors;

- **LCA10 Morfa Harlech**, would be directly affected by the removal of one pylon (Pylon 4ZC028). Within this LCA the works associated with the removal of the one pylon would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland which has an overall high evaluation, and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV 400 kV OHLs which are considered visual detractors;
- **LCA 9 Porthmdog**, would be directly affected by the removal of eight pylons (Pylons 4ZC030R to 4ZC037), the gantry at Garth SEC and the removal of the redundant foundations of former Pylon 4ZC030. Within this LCA the works associated with the removal of the two pylons (Pylons 4ZC036 and 4ZC037) and the gantry at Garth SEC would be located within LANDMAP VSAA GWNDDVS063, Penrhyndeudraeth environs, which has an overall moderate evaluation and moderate evaluation of integrity. Works associated with the removal of the three pylons (Pylons 4ZC033, 4ZC034 and 4ZC035) would be located within LANDMAP VSAA GWNDDVS069, Penrhyndeudraeth, which has an overall moderate evaluation and moderate evaluation of integrity. Works associated with the removal of the three pylons (Pylons 4ZC030R, 4ZC031 and 4ZC032) and the redundant foundations of former Pylon 4ZC030 would be located within LANDMAP VSAA GWNDDVS080, Marsh, which has an overall high evaluation and high evaluation of integrity.

6.9.15 The direct impact on these LCAs would result in a small scale of effect and would be limited in geographical extent. The works would also be very short term in duration. There would therefore be a negligible to low magnitude of effect on these LCAS during construction.

6.9.16 In terms of impacts on other LCAs, these would be indirect and considered to be negligible due to the very small scale of effect and limited geographical extent of the influence of construction which would be very short term in duration.

Landscape Effects During Operation

Landscape Effects of Infrastructure Western Side of the Dwyryd Estuary- During Operation

6.9.17 In view of the distance and sense of separation from **Snowdonia National Park**, it is not anticipated that the operation of infrastructure on the western side of the Dwyryd Estuary would have any notable impacts on the character or special qualities of this highly valued landscape.

6.9.18 The operational infrastructure to the western side of the Dwyryd Estuary would lie near to the boundary of the **Glaslyn and Dwyryd Estuary SLA**. No notable impacts on the key characteristics of this SLA are anticipated as a result of operation as this SLA would not be directly affected.

6.9.19 The operation of infrastructure to the western side of the Dwyryd Estuary would have a direct impact on the immediate landscape character of **LCA 9 Porthmadog.** Within the LCA the operational infrastructure would be located within LANDMAP VSAA GWNDDVS063, Penrhyndeudraeth environs which has an overall moderate evaluation. LCA 9 Porthmadog is highly valued as it is considered part of the setting

of Snowdonia National Park[9]. The part of the LCA which would be affected by the Proposed Project has slightly lowered value (as reflected in the overall moderate VSAA evaluation).

6.9.20 The susceptibility of the overall LCA to the Proposed Project is considered high. Susceptibility is locally reduced the part of the LCA which would be affected by the Proposed Project is already influenced by man-made developments and infrastructure such as the existing A497, Garth Quarry, Garth SEC, 400 kV and 132 kV OHL, which all locally reduce tranquillity. Taking the above into account with its high value, overall sensitivity of the LCA is considered high but is locally reduced in the area of the Proposed Project.

6.9.21 At operation year 1, the Proposed Project would reduce the impact of the existing Garth SEC on LCA 9 Porthmadog. The small modifications to the SEC would have negligible influence in comparison to the highly positive influence of the removal of the existing gantry and terminal pylon 4ZC037. Proposed native tree and scrub and hedgerow planting around the SEC would complement and enhance the local landscape and help to better integrate the SEC which would reduce landscape effects further by year 15.

6.9.22 The operational presence of the relatively short section of underground cable corridor would be almost imperceptible at year 1. Affected sections of dry stone wall would be rebuilt and sections of pastoral fields would recover quickly post construction. Species rich grassland may take a little longer to fully establish but would still grow relatively quickly. Sections of replaced hedgerow would be slower to recover but in time and by year 15 they would show little if any sign of the undergrounding works.

6.9.23 The West Tunnel Head House, associated compound, access road and immediate landscape proposals have been sited and designed in response to the pattern and vernacular of the local landscape whilst also taking into account a number of technical and environmental constraints. The form, scale and materials of the tunnel head house have been carefully considered as part of an iterative design and appraisal process. The design has been informed by stakeholders and the intent is to build a tunnel head house which is not just functional and fit for purpose but one that is of high quality architecture which sits as quietly as possible in the landscape. The high quality design of the building extends from the form and choice of building materials down to the smallest detail. The landscape proposals around the operational compound have sought to integrate the infrastructure into the landscape in the same way that nearby buildings are nestled within pockets of tree cover associated with the well treed Minffordd Peninsula. Appropriate native trees, scrub and hedgerow species would be planted at a variety of sizes from young 40-60 cm transplanted stock to taller stock such as heavy standard trees up to 3.5 m tall.

6.9.24 The presence of the tunnel head house, compound and access road would result in a small to medium scale of effect in a localised area at year 1. The effect would be long term in duration and would reduce over time due to maturation of the embedded landscape mitigation which would help to assimilate the new building and compound into the landscape. Effects would also reduce with increasing distance and perceptibility of the operational infrastructure.

6.9.25 Taking the above into consideration, the most notable operational effects of infrastructure on the western side of the Dwyryd Estuary would be associated with

[9] This is reflected in parts of the LCA being non statutory designated as Special Landscape Areas and is also referred to in the description of the LCA

the West Tunnel Head House at year 1 before planting begins to mature. Overall, there would be a small to medium magnitude of effect on this high sensitivity landscape receptor at year 1 which would reduce to negligible to low by year 15 as planting matures.

Landscape Effects of Infrastructure Eastern Side of the Dwyryd Estuary - During Operation

6.9.26 The operation of infrastructure to the eastern side of the Dwyryd Estuary would have a direct impact on a discrete part of **Snowdonia National Park,** a nationally designated, highly valued landscape. Within the National Park the operational infrastructure would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland which has an overall high evaluation and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV OHLs which are considered visual detractors.

6.9.27 The susceptibility of Snowdonia National Park to the Proposed Project is considered high overall. Susceptibility is locally reduced due to the influence of the existing 400 kV and 132 kV OHLs, and to a lesser extent the existing Cilfor water treatment works and A496, which locally diminish tranquillity. Taking the above into account with its high value, overall sensitivity of the National Park is considered high, but locally reduced in the area of the Proposed Project.

6.9.28 Land rising to the east of the operational East Tunnel Head House , compound and access road is classified in the Local Development Plan as a Section 3 Area of Natural Beauty[10]. The proposed Terminal Pylon 4ZC027R would lie just within the boundary of this Area of Natural Beauty. During operation it would be perceived as a replacement of existing pylon 4ZC027 which currently also lies within this Area of Natural Beauty and which would be removed. Several existing pylons in this area would remain in situ. Taking this into consideration the magnitude of effect in relation to the operation of this Terminal Pylon 4ZC027R would be small (this would be the same at operation year 1 and year 15).

6.9.29 The East Tunnel Head House, associated compound, access road and immediate landscape proposals have been designed to respond to the sense of place of the local landscape whilst taking into account a number of technical and environmental constraints. The form, scale and materials of the tunnel head house have been carefully considered as part of an iterative design and appraisal process. The landscape proposals around the operational infrastructure have not only sought to integrate it into the landscape, but also aim to provide a complementary setting to the high quality architectural design and sculptural form of the tunnel head house. The architecture takes inspiration from the surrounding rugged and distinctive landform and landcover which are translated into the proposed form, texture and colours of the tunnel head house. The high quality design of the building extends from the form and choice of building materials down to the smallest detail.

6.9.30 The presence of the operational East Tunnel Head House, compound and access road, would result in a localised medium scale of effect on the National Park at year 1. The proposed infrastructure would have an impact on the perception of the local landscape by extending the influence of built elements into the landscape (albeit this part of the National Park is already host to OHLs. The impact would be

[10] Snowdonia National Park Authority, Eryri Local Development Plan (ELDP) 2007-2022 (2011), Section 3 of the Wildlife and Countryside (Amendment) Act 1985 placed a responsibility on each of the National Parks of England and Wales to prepare a map showing these areas of mountain , moor, heath, woodland, down, cliff or foreshore, the natural beauty of which the Authority considers it particularly important to conserve

contained within a low lying part of the landscape which is mainly surrounded by sharply rising landform and would also be partially contained by vegetation and landform associated with the A496 and Cilfor water treatment works as discussed in para 6.9.8 above. The geographical extent of the influence of the operational infrastructure would therefore be local with limited effect on wider landscape character. By year 15 the scale of effect would reduce due to the maturation of embedded landscape mitigation and replacement planting.

6.9.31 Taking the above into consideration, the most notable operational effects of infrastructure on the eastern side of the Dwyryd Estuary would be associated with the East Tunnel Head House and sealing end compound and associated access road at year 1 before planting begins to mature. Overall, there would be a medium magnitude of effect on this high sensitivity landscape receptor at year 1 which would reduce to low by year 15 as planting matures.

6.9.32 The operation of the infrastructure on the eastern side of the Dwyryd Estuary would have a direct impact on the immediate landscape character of **LCA12 Cefnwlad Arfordir Ardudwy (Arddudwy Coastal Hinterland)** which falls entirely within Snowdonia National Park. Within the LCA the construction works would be located within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland (as is described above in relation to Snowdonia National Park). In terms of effects of the Proposed Project on this LCA, they would be the same as is described for the National Park above, although the sensitivity of this LCA is considered slightly lower than the overall high sensitivity of the National Park. This is reflected in the text above in relation to the description of locally reduced sensitivity in the vicinity of the proposed infrastructure to the east of the Dwyryd Estuary. In terms of impacts on other LCAs, these are considered to be negligible due to the limited geographical extent of the influence of operational infrastructure.

Landscape Effects of Removal of Existing Infrastructure (VIP Subsection) - During Operation

6.9.33 The landscape effects associated with the removal of three pylons from within the administrative boundary of **Snowdonia National Park** and additional pylons outside the boundary would result in a high magnitude of effect over a small to moderate geographical extent, which would be positive and long term in duration (albeit one of the pylons would be replaced as appraised in paragraph 6.9.28 above). The overall effect would be highly beneficial in terms of reducing the importance of the impact which the infrastructure currently has on the perception of the character, quality and integrity of the landscape.

6.9.34 The direct operational effects of the removal of four pylons and the redundant foundations of former Pylon 4ZC030 from within **Glaslyn and Dwyryd Estuary SLA** and indirect effects of the removal of other pylons outside the SLA would result in a high magnitude of effect over a relatively large geographical extent of the SLA, which would be positive and long term in duration. The overall effect would be highly beneficial in terms of reducing the importance of the impact on the key characteristics of this SLA one of which is the fact that it is considered as an important setting to Snowdonia National Park.

6.9.35 The removal of the VIP Subsection would indirectly benefit **Porthmadog & Tremadog Bay SLA**. This benefit would relate to the enhancement of one of the special qualities of the SLA which is described as '*the long, sweeping views across the Afon Glaslyn estuary, Traeth Bach, the coast and the mountains of Snowdonia'.* This benefit would arise from the removal of incongruous vertical infrastructure from these views which would result in a small scale of effect over a moderate extent of the SLA, this would be positive and long term in duration.

6.9.36 The direct and indirect impacts of the removal of the VIP subsection would be highly beneficial in terms of enhancing the character, quality and integrity of the following LCAS:

- Two pylons (Pylons 4ZC027 and 4ZC029) would be removed from **LCA12 Cefnwlad Arfordir Ardudwy (Arddudwy Coastal Hinterland)** (within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland which has an overall high evaluation and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV OHLs which are considered visual detractors);
- One pylon (Pylon 4ZC028) would be removed from **LCA10 Morfa Harlech**, (within LANDMAP VSAA SNPVS036, Coed Ystymgwern coastal farmland which has an overall high evaluation and moderate evaluation of integrity, partly due to the existing 400 kV and 132 kV OHLs which is are considered visual detractors); and
- Eight pylons (Pylons 4ZC030R to 4ZC037), the gantry at Garth SEC and the redundant foundations of former Pylon 4ZC030 would be removed from **LCA 9 Porthmdog**. LCA 9 Porthmadog is described in the Gwynedd Landscape Strategy as being an important gateway to Snowdonia National Park and a 'buffer zone' to the National Park. Within this LCA, two pylons (Pylons 4ZC036 and 4ZC037) and the gantry at Garth SEC would be removed from within LANDMAP VSAA GWNDDVS063, Penrhyndeudraeth environs; three pylons (Pylons 4ZC033, 4ZC034 and 4ZC035) would be removed from within LANDMAP VSAA GWNDDVS069, Penrhyndeudraeth; and three pylons (Pylons 4ZC030R, 4ZC031 and 4ZC032) and the redundant foundations of Pylon 4ZC030 would be removed from within LANDMAP VSAA GWNDDVS080, Marsh.

6.9.37 As well as being directly affected (in a positive manner) by the removal of parts of the VIP subsection that fall within each of these LCAs, the perception of their landscape character would also benefit from the removal of pylons outside their boundaries.

6.9.38 In terms of impacts on the **LCA08 Dyffryn Y Ddwyryd (Vale of Ffestiniog)** and **LCA13 Y Rhinogau (Rhinog Mountains)** these are considered to be positive but to a slightly lesser extent than the other LCA landscape receptors due to distance which limits the perceptibility of the VIP subsection and therefore its removal would result in a smalle scale of effect over a small geographical extent.

Landscape Effects During Decommissioning

Landscape Effects of Infrastructure Western Side of the Dwyryd Estuary- During Operation

6.9.39 The landscape effects associated with the decommissioning of infrastructure to the western side of the Dwyryd Estuary would be lower than those associated with the construction of the infrastructure. It is anticipated that reduced activities would take place in terms of amounts of vehicular movements, equipment and personnel on site and timescales would be much shorter.

Landscape Effects of Infrastructure Eastern Side of the Dwyryd Estuary - During Operation

6.9.40 The landscape effects associated with the decommissioning of infrastructure to the eastern side of the Dwyryd Estuary would be lower than those associated with the construction of the infrastructure. It is anticipated that reduced activities would take

place in terms of amounts of vehicular movements, equipment and personnel on site and timescales would be much shorter.

Visual Effects During Construction

Visual Effects of Infrastructure Western Side of the Dwyryd Estuary- During Construction

6.9.41 **Communities** within the study area typically have a high visual sensitivity because residential receptors are considered highly susceptible to visual change. The majority of potential residential visual receptors would remain largely unaffected by the construction works associated with infrastructure to the western side of the Dwyryd Estuary due to distance and intervening built form and vegetation (this includes views from the communities of Porthmadog, Bort-y-Gest and the majority of Minffordd). During construction, medium term/ temporary visual impacts are anticipated for a small proportion of the local community to the northern edge of Minffordd. Construction activities would be focussed within two low lying, flat, medium scale pastoral fields to the north of the settlement and within and adjacent to the existing Garth SEC. Garth SEC is currently visible from a discrete part of the community. Short distance views of the construction compound and working areas (including the underground cable route) would be afforded from a small proportion of the community of Minffordd. Although some views would be filtered/ screened by existing vegetation, the scale of effect on this small proportion of the community would be large; this would be temporary and reversible upon completion of construction.

6.9.42 **Recreational** receptors within the study area are also typically highly sensitive. They are often highly susceptible to visual change due to the fact they have a strong interest in their visual surroundings. Views are frequently highly valued, due to the general high scenic quality of the landscape of the study area (albeit the existing 400 kV and 132 kV OHLs detract from the scenic value). Recreational receptors who would experience the greatest magnitude of effect in their views during construction include: people using the Wales Coast Path; Cyclists on NCR 8; Visitors to the Cob, Porthmadog; and Tourists travelling on the Ffestiniog Railway. Other recreational receptors would experience negligible magnitude of effect in their views, these include people using PRoW around Porthmadog and Borth-y-Gest and tourists travelling on the Welsh Highland Railway and Welsh Highland Heritage Railway.

6.9.43 **Road and rail** receptors within the study area are typically considered to have a medium sensitivity because they are considered to be lower in susceptibility than communities and recreational receptors. Road and rail receptors within the study area generally have a moderate to strong interest in their visual surroundings but are focussed on travelling. People traveling along 'A' roads and on the Cambrian Line railway are often travelling at relatively high speed. Road and rail receptors who would experience the greatest change in their views during construction include: people travelling along the local road directly to the south of the construction site. Other road and rail receptors would experience negligible magnitude of effect in their views, these include drivers and passengers on the A487, A497and the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line).

Visual Effects of Infrastructure Eastern Side of the Dwyryd Estuary - During Construction

6.9.44 **Communities** within the study area are typically highly sensitive as discussed above in paragraph 6.9.41. The majority of potential residential visual receptors

would remain largely unaffected by the construction works associated with infrastructure to the eastern side of the Dwyryd Estuary. This is due to the fact that construction activities would be largely contained by rising landform and existing vegetation and built form which would restrict views from views from the communities of Talsarnau, Ynys, Minffordd and Penrhyndeudraeth and the majority of Cilfor. During construction, medium term/ temporary visual impacts are anticipated for a very small proportion of the local community of Cilfor (including scattered community to the north). Construction activities would be focussed within a low lying area to the north of Cilfor which is already affected by the existing 400 kV and 132 kV OHLs. Although the majority of views would be screened by existing vegetation, the scale of effect of a very discrete proportion of the community would be large; this would be temporary and reversible upon completion of construction.

6.9.45 **Recreational** receptors within the study area are also typically highly sensitive as discussed above in paragraph 6.9.42. Recreational receptors who would experience the greatest magnitude of effect in their views during construction include: people using open access land on the eastern bank of the Dwyryd Estuary (west of the A486) and people using PRoW on the lower slopes of the Rhinog Mountains (east of the A486 and B4573); particularly people using PROW Talsarnau Rhif 52 which runs alongside an existing OHL. Other recreational receptors would experience negligible magnitude of effect in their views, these include people using PRoW on the Minffordd Peninsula and on the eastern bank of the Dwyryd Estuary (south of Cilfor and west of the A486 and B4573); cyclists on NCR 8; and tourists visiting Portmeirion.

6.9.46 **Road and rail** receptors within the study area are typically considered to have a medium sensitivity as discussed above in paragraph 6.9.43. Road and rail receptors who would experience the greatest change in their views during construction include: drivers and passengers on the A496 which runs directly to the west of the construction site. Other road and rail receptors would experience negligible magnitude of effect in their views, these include drivers and passengers on local road between Penrhyndeudraeth and Cilfor (including Pont Briwet) and passengers on the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line).

Visual Effects of Removal of Existing Infrastructure (VIP Subsection) - During Construction

6.9.47 **Communities** and **recreational** receptors within the study area are typically highly sensitive as discussed above in paragraphs 6.9.41 and 6.9.42. Although there would be views of the construction works involved in the removal of the VIP subsection from local communities and recreational receptors over a relatively moderate geographical area (including communities of Cilfor, Penrhyndeudraeth and Minffordd and recreational receptors including users of the Wales coast Path, PRoW, open access land, NCR 8, people visiting Gwaith Powdwr Nature Reserve and Tourists travelling on the Ffestiniog Railway), the scale of effect would be very small, very short in duration and would be reversible. Therefore the magnitude of effect would be low at most and often very low.

6.9.48 **Road and rail** receptors within the study area are typically considered to have a medium sensitivity as discussed above in paragraph 6.9.43. As above, although there would be views of the construction works involved in the removal of the VIP subsection from over a relatively modest geographical area (including drivers and passengers on the local road between Penrhyndeudraeth and Cilfor (including Pont Briwet), the A496 and passengers on the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line)), the scale of effect would be very small, very short

in duration and would be reversible. Therefore the magnitude of effect would be low at most and often very low.

Visual Effects During Operation

Visual Effects of Infrastructure Western Side of the Dwyryd Estuary- During Operation

6.9.49 The West Tunnel Head House, associated compound, access road and immediate landscape proposals have been sited and designed in response to the pattern and vernacular of the local landscape whilst also taking into account a number of technical and environmental constraints. The form, scale and materials of the tunnel head house have been carefully considered as part of an iterative design and appraisal process. The design has been informed by stakeholders and the intent is to build a tunnel head house which is not just functional and fit for purpose but one that is of high quality architecture which sits as quietly as possible in the landscape. The high quality design of the building extends from the form and choice of building materials down to the smallest detail. The landscape proposals around the operational compound have sought to integrate the infrastructure into the landscape and filter views of the building in the same way that nearby buildings are seen as nestled within pockets of tree cover associated with the well treed Minffordd Peninsula.

6.9.50 **Communities** within the study area are typically highly sensitive as discussed above in paragraph 6.9.41. Site surveys have confirmed that the majority of potential residential visual receptors would remain largely unaffected by the operation of infrastructure to the western side of the Dwyryd Estuary due to distance and intervening built form and vegetation (this includes views from the communities of Porthmadog, Borth-y-Gest and the majority of Minffordd). During operation, some visual impacts are anticipated for a small proportion of the local community to the northern edge of Minffordd.

6.9.51 The small modifications to Garth SEC would have minimal negative visual impact in comparison to the highly positive influence of the removal of the existing gantry and terminal pylon 4ZC037 (appraised as part of the removal of existing infrastructure (VIP subsection) below). Furthermore, the proposed native tree and scrub planting around the SEC would complement and enhance the local landscape and help to filter views of the SEC by year 15.

6.9.52 The relatively short section of underground cable corridor would be almost imperceptible at year 1. Affected sections of dry stone wall would be rebuilt and sections of pastoral fields would recover quickly post construction. Sections of replaced hedgerow would be slower to recover but in time and by year 15 they would show little if any sign of the undergrounding works.

6.9.53 At operation year 1, the presence of the West Tunnel Head House, compound and access road would result in a small to medium scale of effect in views from localised area to the north of Minffordd, The effect would be long term in duration and would reduce over time by year 15 due to maturation of the embedded landscape mitigation (native tree and scrub planting) which would help to assimilate the new building and compound into the landscape and filter views from the community. Effects would also reduce with increasing distance and perceptibility of the operational infrastructure.

6.9.54 **Recreational** receptors within the study area are also typically highly sensitive as discussed above in paragraph 6.9.42. Cyclists on NCR 8 would experience a change in their views during operation as the infrastructure would be visible from a short section of the cycle route which runs close to the infrastructure. Views of the

infrastructure would reduce by year 15 as mitigation planting matures. Other recreational receptors would experience negligible magnitude of effect in their views, these include people using the Wales Coast Path, visitors to the Cob, Porthmadog; people using PRoW around Porthmadog and Borth-y-Gest and tourists travelling on the Ffestiniog Railway, the Welsh Highland Railway and Welsh Highland Heritage Railway.

6.9.55 **Road and rail** receptors within the study area are typically considered to have a medium sensitivity as discussed above in paragraph 6.9.43. Road and rail receptors who would experience a change in their views during operation would be limited to people travelling along the local road directly to the south of the infrastructure (this road also forms part of NCR 8 as discussed above). Other road and rail receptors would experience negligible magnitude of effect in their views, these include drivers and passengers on the A487, A497 and the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line).

Visual Effects of Infrastructure Eastern Side of the Dwyryd Estuary - During Operation

6.9.56 The East Tunnel Head House, associated compound, access road and immediate landscape proposals have been designed to respond to the sense of place of the local landscape whilst taking into account a number of technical and environmental constraints. The form, scale and materials of the tunnel head house have been carefully considered as part of an iterative design and appraisal process. The landscape proposals around the operational infrastructure have not only sought to integrate it into the landscape, and maximise screening opportunities of the sealing end vertical equipment, but also aim to provide a complementary setting to the high quality architectural design and sculptural form of the tunnel head house. The architecture takes inspiration from the surrounding rugged and distinctive landform and landcover which are translated into the proposed form, texture and colours of the tunnel head house. The high quality design of the building extends from the form and choice of building materials down to the smallest detail.

6.9.57 **Communities** within the study area are typically highly sensitive as discussed above in paragraph 6.9.41. The majority of potential residential visual receptors would remain unaffected by the operation of infrastructure to the eastern side of the Dwyryd Estuary. This is due to the fact that the operational infrastructure would be visually contained by rising landform and existing vegetation and built form which would restrict views from views from the communities of Talsarnau, Ynys, Minffordd and Penrhyndeudraeth and the majority of Cilfor.

6.9.58 During operation, visual impacts are anticipated for a very small proportion of the local community of Cilfor (including scattered community to the north); however, the infrastructure is focussed within a low lying and visually contained area to the north of Cilfor, which is already affected by the existing OHL. During operation the Terminal Pylon 4ZC027R would be perceived as a replacement of existing pylon 4ZC027 which would be removed (this is appraised as part of the removal of existing infrastructure (VIP subsection) below). Several existing pylons in this area would remain in situ. Parts of the East Tunnel Head House, operational compound and access road may be glimpsed in oblique views from a very small proportion of the community of Cilfor. The proposed native tree and scrub planting designed along the access road and around the compound would help to frame and filter views of the infrastructure by year 15. Although the majority of views would be screened by existing vegetation, the scale of effect of a very discrete proportion of the community would be medium.

6.9.59 **Recreational** receptors within the study area are also typically highly sensitive as discussed above in paragraph 6.9.42. Recreational receptors who would experience the greatest magnitude of effect in their views during operation would be limited to people using open access land on the eastern bank of the Dwyryd Estuary (west of the A486) and people using PRoW on the lower slopes of the Rhinog Mountains (east of the A486 and B4573); particularly people using PROW Talsarnau Rhif 52 which runs alongside an existing OHL. At operation year 1, people using PROW Talsarnau Rhif 52 would experience a medium magnitude of effect which would reduce to medium to low by year 15 due to the maturation of mitigation planting. Other recreational receptors would experience negligible magnitude of effect in their views, these include people using PRoW on the Minffordd Peninsula and on the eastern bank of the Dwyryd Estuary (south of Cilfor and west of the A486 and B4573); cyclists on NCR 8; and tourists visiting Portmeirion.

6.9.60 **Road and rail** receptors within the study area are typically considered to have a medium sensitivity as discussed above in paragraph 6.9.43. Road and rail receptors who would experience the greatest change in their views during construction include drivers and passengers on the A496 which runs directly to the west of the operational infrastructure. Other road and rail receptors would experience a negligible magnitude of effect in their views, these include drivers and passengers on local road between Penrhyndeudraeth and Cilfor (including Pont Briwet) and passengers on the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line).

Visual Effects of Removal of Existing Infrastructure (VIP Subsection) - During Operation

6.9.61 **Communities** within the study area are typically highly sensitive as discussed above in paragraph 6.9.41. Visual amenity experienced by the following communities would be greatly enhanced:

- The majority of the community of Cilfor would experience a high magnitude of effect which would be positive. The removal of the VIP subsection from panoramic and otherwise highly scenic views overlooking the Dwyryd Estuary to the north-west would greatly enhance visual amenity.
- A relatively large proportion of the community of Penrhyndeudraeth would also benefit from the removal of the VIP subsection. The VIP subsection is currently visible to the south east where it rises up over the Minffordd Peninsula and to the south where it crosses over the otherwise highly scenic Dwyryd Estuary, the removal of this infrastructure would give rise to a high magnitude of visual effect which would be positive; and
- A small proportion of the community of Minffordd would benefit from the removal of the VIP subsection, particularly in the north where the removal of the existing terminal pylon 4ZC037 and pylon 4ZC036 would have a notable positive effect on visual amenity.

Plate 6.1: Example view from Penrhyndeudraeth – before and after removal of the VIP subsection[11]

6.9.62 Visual amenity experienced by communities of Porthmadog, Borth-y-Gest, Talsarnau and Ynys would also be improved; albeit to a lesser extent.

6.9.63 **Recreational** receptors within the study area are also typically highly sensitive as discussed above in paragraph 6.9.42. Visual amenity experienced by the following recreational receptors would be greatly enhanced by the removal of the VIP subsection:

- People walking along the Wales Coast Path;

[11] Refer to viewpoint W, Appendix 6.C.

Plate 6.2: Example view from the Wales Coast Path near Cilfor – before and after removal of the VIP subsection[12]

- People walking along of PRoW on the Minffordd Peninsula and within and around Penrhyndeudraeth;
- People using open access land around Penrhyndeudraeth, on the eastern bank of the Dwyryd Estuary;
- Cyclists using NCR 8;
- Visitors to Gwaith Powdwr Nature Reserve; and

[12] Refer to viewpoint O (west), Appendix 6.C.

Plate 6.3: Example view from Gwaith Powdwr Nature Reserve, the Wales Coast Path, NCR 8 and Pont Briwet – before and after removal of the VIP subsection[13]

- Tourists travelling on the Ffestiniog Railway.

6.9.64 Visual amenity would also be enhanced to a moderate degree for visitors to the Cob, Porthmadog and also to a lesser extent for the following recreational receptors:

- Users of PRoW: around Porthmadog and Borth-y-Gest, in the upland areas in the north west and north east of the Study Area, on the eastern bank of the Dwyryd Estuary and on the lower slopes of the Rhinog Mountains;
- Users of open access land: on and around Moel-y-Gest, in the upland areas in the north west and north east of the Study Area and on the lower slopes of the Rhinog Mountains;
- Visitors to Portmeirion; and
- Tourists travelling on the Welsh Highland Railway and Welsh Highland Heritage Railway.

6.9.65 **Road and rail** receptors within the study area are typically considered to have a medium sensitivity as discussed above in paragraph 6.9.43. Visual amenity experienced by the following recreational receptors would be greatly enhanced by the removal of the VIP subsection:

- Drivers and Passengers on local road between Penrhyndeudraeth and Cilfor (including Pont Briwet); and
- Passengers on the Aberystwyth and Welsh Coast Railway line (part of the Cambrian Line).

[13] Refer to viewpoint L, Appendix 6.C.

Plate 6.4: Example view from Aberystwyth and Welsh Coast Railway – before and after removal of the VIP subsection[14]

6.9.66 Visual amenity would also be enhanced to a moderate degree for drivers and passengers on the A487, A497 and the A496.

Visual Effects During Decommissioning

6.9.67 The visual effects associated with the decommissioning of infrastructure (should this be needed) to both the western and eastern sides of the Dwyryd Estuary would be lower than those associated with the construction of the infrastructure. It is anticipated that reduced activities would take place in terms of amounts of vehicular movements, equipment and personnel on site and timescales would be much shorter.

6.10 Cumulative Effects

6.10.1 As detailed in Chapter 18 (Cumulative), no cumulative developments have been identified.

6.10.2 The three different elements of the Proposed Project[15] have been considered separately in this appraisal, to allow judgments to be made based on their varied effects. This section discusses the intra-project effects as, in reality, landscape and visual effects would be experienced from the Proposed Project as a whole.

6.10.3 Intra-project construction effects would be short to medium term, temporary and reversible due to the very short term construction activities associated with the removal of existing infrastructure (VIP subsection) in combination with the short to medium term construction of infrastructure to the west and eastern sides of the Dwyryd Estuary. Tree removal across the components of the Proposed Project would be minimised as much as possible and tree protection measures would be put in place to ensure that all trees to be retained are protected (see Appendix 6.D). Replacement tree planting (embedded mitigation) would comprise an appropriate mix of native species that would enhance and complement the landscape. This

[14] Refer to viewpoint M, Appendix 6.C.

[15] Infrastructure Western Side of the Dwyryd Estuary; Infrastructure Eastern Side of the Dwyryd Estuary; and Removal of Existing Infrastructure (VIP Subsection).

would ensure that any effect on tree cover would be mitigated in the medium to long term as replacement planting matures.

6.10.4 There would be few intra project landscape and visual effects arising as a result of the operation of the of the West Tunnel Head House, compound and access road and the East Tunnel Head House, sealing end compound, access road and Terminal Pylon 4ZC027R. This is due to the fact that visual effects of these geographically separate components of the Proposed Project do not greatly overlap, as illustrated by the ZTV in Figures 6.2 – 6.5. The infrastructure to the west and east of the Dwyryd Estuary would affect different LCAs in localised areas which would greatly limit the geographical extent of any intra-project effects on the landscape.

6.10.5 The existing infrastructure (VIP Subsection) has previously been identified as having a high level of adverse landscape and visual effects, the permanent removal of approximately 3.4 km of 400 kV (and 132 kV) OHL (the VIP subsection) including 10 pylons and the existing gantry at Garth SEC and subsequent restoration of the landscape contributes towards a large number of greatly beneficial landscape and visual effects.

6.10.6 Overall, on balance, the Proposed Project would result in substantial enhancements to landscape character and visual amenity.