Proposed Wind Turbines at Dubbers, Land East of Karslake China Clay Works, Currian Vale, Nanpean, Cornwall

Landscape and Visual Impact Assessment (LVIA)

Prepared by Amalgam Landscape Limited
On behalf of CleanEarth

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1. Introduction

Purpose of this Report

1.1 Amalgam Landscape, a Registered Practice of the Landscape Institute, has produced this Landscape and Visual Impact Assessment (LVIA) on behalf of CleanEarth for a proposed two wind turbine development (the proposed development) on Land East of Karslake China Clay Works, Currian Vale, near Nanpean, Cornwall.

1.2 The LVIA has been prepared in accordance with pre-application guidance from Cornwall Council (CC) and is produced as supplementary information to inform the planning application.

1.3 The purpose of the LVIA is to identify and outline the existing landscape character and visual amenity receptors within the study area, including their sensitivity to change and to assess the potential magnitude of impact and level of effect, including the significance of effect, on these receptors as a result of the proposed development. Mitigation measures are proposed, including during the initial design phase, to reduce the impacts and effects of the proposed development. Impacts and effects are assessed at significant stages in the life of the proposed development, including construction, operation, and decommissioning.

1.4 The LVIA also considers the cumulative effects of the proposed development when perceived with other wind energy schemes that are consented and 'pending planning[1]' within the study area. Operational wind energy schemes are also considered as part of the baseline assessment.

1.5 Therefore, the LVIA will assist decision-makers, members of the public and other interested parties by providing a clear and common understanding of the predicted landscape and visual impacts and effects of the proposed development in an impartial and professional way.

The Proposed Development

1.6 The location of the proposed development is illustrated in **Figure 1**.

1.7 The proposed development will consist of:

- Two, three-bladed wind turbines with 76.5m towers and 58.5m blades. The proposed wind turbines will however have a maximum overall tip height of 135m;
- The proposed wind turbines will be a semi-matt mid grey colour (RAL:7035) in order to blend in with the colour of the sky which represents the background to the proposed wind turbines in most views;
- Crane hard-standing areas for erecting cranes at the proposed wind turbine locations;
- Temporary construction compound; and

[1] 'Pending planning' – wind energy schemes that have been submitted for a planning application decision. This does not include wind energy schemes in screening or scoping or those that have been refused planning permission.

- Existing quarry haul roads from the public road to the proposed development will be used for access during construction, operation and decommissioning although there will be short stretches of new compacted gravel access tracks connecting the existing tracks to the base of the proposed wind turbines.

1.8 The proposed development will involve the following distinct phases:

- Construction phase – approximately 6-9 months, with the cranes present for a maximum of 6 days (subject to weather conditions);
- Operation phase – 35 years; and
- Decommissioning phase – approximately 4-6 weeks, with the cranes present for a maximum of 6 days (subject to weather conditions).

Scope of the LVIA

1.9 The scope of the LVIA has been prepared in accordance with pre-application guidance from CC. The LVIA:

- Identifies the methodology, including defining the extent of the study area and the detailed technical approach. The 'main' study area is a **10km radius** measured from the location of the proposed development. An additional 'broad' study area of **20km radius** measured from the location of the proposed development is used to assess the wider extent of potential visibility, including to inform the cumulative assessment;
- Describes the existing site and its surroundings, including a determination of its sensitivity and value;
- Identifies operational, consented and 'pending planning' wind energy schemes within a **20km radius** study area measured from the location of the proposed development. Operational wind energy schemes also form part of the existing conditions assessment;
- Describes the wider context of the site, including landscape relevant designations, landscape character and visual amenity receptors and their views within the 10km radius study area. Annotated panoramic viewpoints, from agreed publicly accessible locations are used to help describe and illustrate the existing context;
- Proposes mitigation measures which aim to avoid, reduce or compensate for any effects. Mitigation through siting and design during the earliest stages were critical in reducing the potential landscape and visual effects of the proposed development. Additional landscape and ecology mitigation measures were also proposed ;
- Describes the magnitude of impact and the level and significance of effect on the existing landscape character and visual amenity receptors and their views as a result of the proposed development. Computer-generated zones of theoretical visibility (ZTVs), calculated to the hub height and blade tip heights, help to identify the locations in the relevant study areas where the proposed wind turbines could be visible, based on landform only. Photographs, wireframe views and photomontages are also used to illustrate the potential impacts and effects of the proposed development from agreed publicly accessible locations;
- Assesses the additional cumulative effects of the proposed development in combination with other consented and pending planning wind energy schemes. Wireframe views and photomontages are also used to illustrate the potential impacts and effects of the proposed development in combination with consented and pending

planning wind energy schemes. The influence of the proposed development in combination with operational wind energy schemes are also considered as part of the baseline assessment; and

- Provide conclusions on the overall landscape and visual effects of the proposed development.

2. Methodology

2.1 The LVIA is carried out by experienced chartered landscape architects. They apply professional judgements in a structured and consistent way, following the guidelines produced by the relevant professional bodies concerned with landscape and visual impact assessment and the assessment of wind energy scheme related developments.

2.2 These guidelines are identified in **Appendix A**.

2.3 In line with the *Guidelines for Landscape and Visual Impact Assessment*[2] *(GLVIA)*, the primary guidance in respect of LVIA, the methodology used for this assessment has three iterative key stages, as follows:

- **Existing conditions** (or baseline assessment) – this includes the gathering and description of information to inform the assessment, including information on other operational wind energy schemes, within the study area;
- **Design** – this includes input into the design at key stages including defining the location of development, identification of opportunities and constraints, review of and recommendations to layout, discussion and recommendation of landscape mitigation measures; and
- **Assessment of Impacts and Effects** – this includes an assessment of the potential landscape and visual effects of the proposed development and any cumulative effects.

The Study Areas

2.4 The 'main' study area is a 10km radius measured from the location of the proposed development.

2.5 Cumulative information, including details of operational, consented and pending planning wind energy schemes, above 15m in height to blade tip, has been collected within a 20km radius study area.

2.6 Zones of Theoretical Visibility (ZTVs), calculated to the hub height and blade tip heights, which assess the potential visibility of the proposed development, have also been completed for 10km and 20km radius study areas.

[2] The Landscape Institute and the Institute of Environmental Management and Assessment Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, 2013

Existing Conditions Assessment Methodology

2.7 The description of the existing conditions establishes the baseline situation against which the impacts and effects of the proposed development are assessed.

2.8 The description of the existing conditions includes:

- **Site description** - which is the description of the site, the boundaries and the immediate surrounds, including a determination of its sensitivity and value;
- **Cumulative information** – which includes information on operational wind energy schemes. Consented and pending planning wind energy schemes do not form part of the existing conditions assessment;
- **Landscape character** - which is the description of the physical characteristics of the landscape and their sensitivity. The landscape is divided into discrete areas of similar characteristics called 'landscape character areas.' Reference is made to previously published landscape character assessments at a national and local scale. Landscape relevant designations, which include areas recognised for their landscape value, at a national, regional and local scale, are also identified to help determine sensitivity; and
- **Visual amenity receptors** – which is the identification of people and groups of people and a description of their views. Views from settlements (towns, villages and hamlets), individual and small clusters of residential properties and farms, places of interest including country parks, national trails, recreational routes, national cycle routes, local public rights of way, bridleways and cycleways, open access areas, major and minor roads and railway lines are assessed. The sensitivity of the visual amenity receptors is also described.

2.9 Information is collected through a combination of desk studies, site surveys and consultation.

Desk Study

2.10 An initial desk study was undertaken to review existing map and written data, relevant to the study area. Details of sources of information are found in **Appendix A**.

2.11 A summary of the desk study is outlined below:

- Review of relevant development plans for policies and designations to gain an understanding of the 'importance,' 'value' and 'sensitivity' of designated features attributed to the landscape and visual resource by the national and local government;
- Review of previously published landscape character assessments at a national and local scale to gain an understanding of the overall character, quality and sensitivity of the existing landscape within the study area, including the sensitivity of the site to renewable energy development;
- Review of maps and internet data to gain an understanding of the landform and landscape pattern as well as for information on the location of public rights of way, open access areas and visitor attractions; and
- Searches of CC planning information as well as national databases and websites to find information on operational, consented and pending planning wind energy schemes. The information is constantly changing and was last updated at the beginning of September 2025.

Site Survey

2.12 An initial site survey, including a photographic survey, was undertaken in January 2025, and following pre-application advice from CC an additional site survey, including a photographic survey, was undertaken in October 2025 by an experienced and chartered landscape architect.

2.13 In addition, selected viewpoint photography from site surveys undertaken in May 2021 and April 2022, by an experienced and chartered landscape architect, was also used to inform the LVIA.

2.14 The survey within the study area was undertaken from selected publicly accessible areas, such as public highways and public rights of way. Views from private properties, such as houses and settlements, were estimated from the closest publicly accessible location and checked using aerial photography.

2.15 The site survey helped to gain an understanding of the site and its context as well as the wider landscape character and visual amenity receptors and their views within the study area. The site survey also helped to determine the potential impacts and effects as a result of the proposed development as well as developing the design and mitigation measures. This supplemented the available information collected during the desk study.

Consultation

2.16 As part of the pre-application consultation, 5 publicly accessible viewpoints, interpreted as photomontages were issued to CC. These comprise **Viewpoints 1-5 (Figures 12-16)** of the LVIA.

2.17 In addition, 9 other potential annotated panoramic publicly accessible viewpoints were also issued to CC, as part of the pre-application consultation. From these 9 potential viewpoints, based on the potential visibility of the proposed development as well as the sensitivity of the landscape and/or visual amenity receptor, 4 of the viewpoints were selected to be interpreted as photomontages and to support the LVIA. These include **Viewpoints 6, 14, 15 and 17 (Figures 17, 25, 26 and 28)**.

2.18 Pre-application advice was received from CC on 22nd July 2025, including detailed advice from the CC Landscape Officer, which states that any future application should include a LVIA, including an assessment of cumulative landscape and visual effects. It was advised that the LVIA should follow best practice guidance, including GLVIA[3] and consider interrelationships with other related disciplines, including ecology and heritage.

2.19 Of relevance to the LVIA, the pre-application advice states:

- The site is located on land which is a former china clay operational area and has been subject to land restoration, including backfilling of old quarries, a new layer of soil added and hydroseeding of grass/wildflower mix with extensive areas of native tree planting. The overall site is gradually becoming a more natural looking feature, when compared to its previous white ground and quarry pit filled with water;

[3] The Landscape Institute and the Institute of Environmental Management and Assessment Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, 2013

- The proposed development is situated within the *St Austell or Hensbarrow China Clay Area Cornwall Character Area (CCA27)*, as described in the CC LCA[4];
- The proposed development is situated within the *St Austell or Hensbarrow China Clay Renewable Landscape Unit (RLU13),* as described in the CC RELS Assessment[5].

  The proposed development, at 135m in height to blade tip, would be in Band D - 100m-150m in height to blade tip wind energy developments. Within RLU13, the landscape has been identified as moderate-high sensitivity to wind energy developments within Band D. RLU13 notes that given the highly industrial character and large-scale of this landscape, there is an opportunity to accommodate turbines up to Band C, and potentially into the lower end of Band D. However, RLU13 should remain a landscape with occasional wind energy development to preserve the landmark features within it (and its distinctive skyline profile visible in long views) and to limit cumulative landscape effects. The wider area is however considered suitable for wind energy development and is able to absorb changes to the landscape to a degree;
- The proposed development is within the 'green' area of the St Stephen in Brannel Parish Council Neighbourhood Development Plan (NDP)[6], as identified on Map 3 'Wind Energy Development Areas of Search.' The site is therefore considered, within the NDP, as suitable for wind energy schemes up to Band D – 100m-150m in height to blade tip and for 'small to large clusters' of wind turbines.

  The NDP also states in Policy NE6 that any proposed wind energy development "*would not dominate, or prevent the understanding and appreciation of the distinctive historic landmarks, heritage assets, or the views of the china clay tips, lagoons and landforms associated with the Hensbarrow mining area, or the rising ground above the settlements, which mark the Cornish Distinctiveness of the area*;" and
- The proposed development is within an area of raised ground and is relatively prominent within the wider landscape from some viewpoints to the west. Views from the east are restricted by the topography of the china clay areas.

2.20 Detailed advice from the CC Landscape Officer was also received and is outlined in more detail below:

- A detailed LVIA within 10km radius of the proposed development is acceptable. Within 20km radius of the proposed development, only 'notable' features need to be assessed as part of the LVIA. A wider study area may be required in relation to the cumulative assessment;
- The viewpoints should cover a representative sample and include views from the immediate area and the wider landscape setting, including from diverse receptors.

  The potential viewpoints used to inform the LVIA were:

  - From the most 'exposed' viewpoints (based on the ZTVs);

  - Broadly surrounding the proposed development, from all directions of view;

  - From a variety of sensitivity of receptors, focussing on the most 'sensitive'; and

[4] Cornwall Council, Landscape Character Assessment, 2022 (on-line via interactive map www.cornwall.gov.uk)

[5] Cornwall Council, Review of the Cornish Renewable Energy Landscape Sensitivity (RELS) Assessment, Final Report, December 2020

[6] St Stephen in Brannel Parish Council, St Stephen in Brannel Parish Neighbourhood Development Plan, 2023-2030, Referendum Version, June 2024

- From a variety of distances away from the proposed development.

- The visual representation of the proposed development should comply with the relevant Landscape Institute guidance. Detail on the compliance of the visual information to inform the LVIA, including ZTVs and photomontages, is found in **Appendix B**;
- Additional viewpoints were suggested including:
  - From Sticker Camp Scheduled Monument, between Sticker and Polgooth. Sticker Camp Scheduled Monument is not publicly accessible, so views from the surrounding minor road network were assessed. **Viewpoint 13 (Figures 24A-24D)**, illustrates the view from Chapel Hill minor road, above the enclosing hedgebank lining the road, across the surrounding sloping fields towards the distant tips and the proposed development;
  - From Innis Downs Scheduled Monuments and nearby public rights of way. **Viewpoint 16 (Figures 27A-27D)** illustrates the view from a gap in enclosure along the public right of way, to the south of the cluster of Scheduled Monuments. Views are possible across the surrounding gently sloping fields towards the distant tips and the proposed development;
  - From Goss Moor open access area. **Viewpoint 12 (Figures 23A-23C)** illustrates the views from a minor road, crossing Goss Moor open access area. Views are possible across the scrub and intermittent vegetation that is characteristic of Goss Moor towards the distant tips and the proposed development;
  - From residential area of Goverseth/Foxhole. **Viewpoint 9 (Figures 20A-20C)**, illustrates the view from the recently constructed housing development on the northern fringes of Goverseth/Foxhole. Views are possible from the settlement fringes across the lower well-vegetated valley towards the rising tips and the proposed development;
  - From Greystones. There were no potential views from the minor road (Greensplat Road) adjacent and immediately to the east of the two properties at Greystones and South Cottage. During the site survey, panoramic photographic viewpoints were taken adjacent to the houses, from the minor road, but when interpreted – none showed that the proposed development would be perceived. The proposed development would be 'hidden' behind the nearby and intervening tips, in close proximity to the houses. However, a viewpoint was taken to the south of Greystones and South Cottage from Greensplat Road. Slightly elevated above the nearby houses, as illustrated in **Viewpoint 11 (Figures 22A-22D)**, only the blade tips of one of the proposed turbines will have the potential to be perceived; and
  - The closest public right of ways to the proposed development including 422/79/4, extending south from Old Pound and 422/83/1, extending west from Water Hill minor road appear to be not accessible and could not be found during the site survey.

<u>Landscape Character and Visual Amenity Receptor Sensitivity Methodology</u>

2.21 Landscape character and visual amenity receptors are assessed according to their sensitivity by balancing value and susceptibility to change.

Value

2.22 The value of the landscape is established as part of the existing conditions assessment. A review of existing landscape relevant designations, including planning policies and

cultural values, are the starting point in determining landscape value. A review of the relevant landscape character assessment[7] also helps to determine value.

2.23 The value of visual amenity receptors and their view is determined by:

- Recognition of the value attached to particular views, for example in relation to heritage assets or through designations; and
- Indicators of value attached to views by visitors, for example by appearing in guidebooks or on tourist maps, provision of facilities for their enjoyment, such as parking spaces, sign boards and interpretive material and reference in art and literature.

Susceptibility to Change

2.24 Determination of the landscape susceptibility to change is based on the ability of the landscape to accommodate the proposed development without undue consequences for the maintenance of the existing conditions and/or the achievement of landscape planning policies and strategies.

2.25 The susceptibility to change of visual amenity receptors is determined through the user and the location, including:

- The occupation or activity of people experiencing the view; and
- The extent of which their attention or interest may be focussed on the views and the visual amenity they experience at particular locations.

Sensitivity

2.26 The landscape character areas are assessed for their sensitivity based on a review and analysis of the elements, designations and previously published descriptions. The sensitivity of the visual amenity receptors is dependent on the location, context and importance of the viewer.

2.27 The sensitivity of both landscape character and visual amenity receptors are evaluated according to a five-point scale. The criteria used to assess the sensitivity of landscape character and visual amenity receptors are outlined in **Table 1**.

Table 1 Broad criteria for assessing the sensitivity of landscape and visual receptors

Sensitivity	Landscape character description	Visual amenity receptor description
High	Distinctive landscape elements and/or character. Includes areas with a very strong positive character with valued features that combine to give an experience of unity, richness and harmony. Landscapes in excellent/very good condition that are considered to be of particular importance to conserve. No detractors present. Likely to be nationally designated, such as	Residents of residential properties and settlements. Users of public rights of way/open access land in designated areas of landscape value (within National Landscapes). Users of national trails/recreational routes and national cycle routes. Visitors to valued viewpoints (for example promoted or well-known viewpoints, key designed views or panoramic viewpoints marked on maps).

[7] Cornwall Council, Landscape Character Assessment, 2022 (on-line via interactive map www.cornwall.gov.uk)

Sensitivity	Landscape character description	Visual amenity receptor description
	National Landscapes and could include very highly valued landscapes of strong scenic quality and rarity on a national/international scale (National Landscapes). A landscape or elements with a very low/very limited tolerance to change of the type of development proposed.	Viewers with interest and/or prolonged viewing opportunities and/or who have a particular interest in their visual environment and/or open to many viewers, for example visitors to landmark landscapes.
Medium-high	Highly valued landscape elements and/or character. These are landscapes in very good condition that are considered to be of importance to conserve. No or few detractors present. Likely to be locally designated, such as Areas of Great Landscape Value and could include valued landscapes of scenic quality and rarity on a regional or local scale. A landscape or elements with a low/limited tolerance to change of the type of development proposed.	Users of public rights of way/open access areas, including those which could be locally recognised (within Areas of Great Landscape Value) or in locations where the users are likely to pause to appreciate the view, such as at benches, key views to/from local landmarks. Users of outdoor recreational facilities with high interest in the surrounding environment including visitors to attractions or heritage assets.
Medium	Moderately valued or 'everyday' landscape elements and/or landscape character. These are landscapes in good condition which could be appreciated by the community but has little or no wider recognition. Some detractors could be present. A landscape or elements with a partial tolerance to change of the type of development proposed.	Travellers along identified scenic road routes. Visitors to cemeteries. Visitors staying at a caravan/camping site. Viewers with moderate interest in their visual environment, for example, users of local parks, open space and public realm.
Medium-low	Reasonably valued landscape elements and/or landscape character. Could include features/areas that exhibit positive character but which may have evidence of alteration, degradation and erosion of features resulting in areas of more mixed character. Some detractors likely to be present. A landscape or elements with a tolerance to change of the type of development proposed.	Travellers along most minor roads with limited opportunity to enjoy the view due to speed of travel, including users of 'B' roads or unclassified roads. Outdoor sporting facilities and users of recreational facilities with low interest in the surrounding environment.
Low	Weak landscape structure, partly degraded with frequent detractors. Highly likely to be a non-designated landscape in poor condition which could include elements and/or areas that are generally negative in character with few, if any, valued features. A landscape or elements with a high tolerance to change of the type of development proposed.	Static office workers and workers in industrial facilities/indoor non-static environments where their attention is focussed on their work or activity and/or where there are infrequent views. Travellers with limited opportunity to enjoy the view due to speed of travel (for example on trunk/A roads or rail routes).

Design Methodology

2.28 A role was played by the chartered landscape architect in developing the design during the assessment process, including determining the landscape mitigation measures, such as proposed planting.

2.29 The landscape mitigation measures were also agreed through discussions with the ecologist and informed by the Ecological Impact Assessment[8] and Biodiversity Net Gain Assessment (BNG)[9].

Assessment of Impacts and Effects Methodology

2.30 The existing conditions descriptions and the determination of sensitivity help to assess the magnitude of impact and level of effect, including the significance of effect, on the landscape character and visual amenity receptors as a result of the proposed development.

2.31 The determination of impacts and effects are assessed at different stages during the life of the proposed development including:

- During construction;
- During operation; and
- During de-commissioning, including any residual effects.

2.32 However, it should be noted that the effects will be reversible, albeit long-term given the 35 year life of the proposed development.

2.33 The additional cumulative effects of the proposed development, when perceived with other wind energy schemes in the study area, are also assessed.

Magnitude of Impact Methodology

2.34 An ‘impact’ is defined as a change likely to occur as a result of the construction, operation and decommissioning of the proposed development.

2.35 The scale or magnitude of impact is determined through the assessment of the duration and extent of the changes to the landscape and visual resource as a result of the proposed development.

2.36 The duration of impact determines the time period over which the changes as a result of the proposed development occurs. Most impacts as a result of the proposed development would be long-term, given that the operational period will be 35 years. However relatively short-term impacts may be identified for example, during construction or decommissioning.

2.37 The extent of the impact indicates the geographic area over which the changes as a result of the proposed development occur. The extent of the impacts could be limited; localised; intermediate or wide.

[8] Western Ecology, Ecological Impact Assessment, November 2025

[9] Western Ecology, Biodiversity Net Gain Strategy, November 2025

2.38 The magnitude of impact on both landscape character and visual amenity receptors are evaluated according to a seven-point scale. The broad criteria for assessing the magnitude of impacts are outlined in **Table 2**.

Table 2 Broad criteria for assessing the magnitude of impact on landscape character and visual amenity receptors

Magnitude of impact	Landscape character description	Visual amenity receptor description
High	High levels of change to landscape elements/ landscape character. The proposed development will be very prominent in the landscape and will be perceived as a determining factor of the landscape character. The proposed development will lead to a major alteration to the landscape character. The proposed development, when perceived with other wind energy schemes, will be immediately apparent and contribute to a 'landscape with wind farms.'	Receptors would experience an immediately apparent change to their views, arising from major alteration to the key characteristics of the existing view or the introduction of elements that will be totally uncharacteristic of the view. The proposed development will dominate the field of view and be impossible not to notice. The proposed development, when perceived with other wind energy schemes, would be immediately apparent and contribute to a view dominated by wind farms.
Medium-high	Prominent level of change to landscape elements/landscape character. The proposed development will be obvious in the landscape and will generally be perceived as a determining factor in local landscape character. The proposed development, when perceived with other wind energy schemes, would be obvious and contribute to a 'landscape with wind farms.'	Receptors would experience an apparent change to their views. The proposed development would be prominent in views or would be perceived as the determining factor within the field of view and be difficult not to notice. The proposed development, when perceived with other wind energy schemes, would be obvious and contribute to a view influenced by wind farms.
Medium	Partial levels of change to landscape elements/landscape character. The proposed development will be noticeable but not necessarily a determining factor of the landscape character. The proposed development would lead to a change to the landscape character. The proposed development, when perceived with other wind energy schemes, would be apparent and contribute to a 'landscape with wind farms.'	Receptors would experience a readily apparent change to their view, arising from partial alteration to the key characteristics of the existing view or the introduction of elements that may be prominent but will not dominate the field of view. The proposed development, when perceived with other wind energy schemes, would be apparent and contribute to a view influenced by wind farms.
Medium-low	Minor levels of change to landscape elements/landscape character. The proposed development will be perceived but will not be a determining factor of the landscape character. The proposed development, when perceived with other wind energy schemes, would be noticeable and may contribute to a 'landscape with wind farms.'	Receptors would experience an apparent but minor change in their view, arising from an alteration to the view. The proposed development will be present in views but will form only a minor element. The proposed development, when perceived with other wind energy schemes, would be noticeable and may contribute to a view influenced by wind farms.
Low	Low levels of change to landscape elements/landscape character.	Receptors would experience a low level of change to views. The proposed development

Magnitude of impact	Landscape character description	Visual amenity receptor description
	The proposed development will be present and will be perceived as a background feature of the wider landscape character. The proposed development would lead to a minor change to the landscape character. The proposed development, when perceived with other wind energy schemes, will not be immediately noticeable, although it may contribute to a 'landscape with wind farms.'	will be present in the wider landscape but will be perceived as a background component of views and easily go unnoticed. The proposed development would lead to a minor change to the view. The proposed development, when perceived with other wind energy schemes, will not be immediately noticeable, although it may contribute to a view with wind farms.
Negligible	Very minor levels of change to landscape elements/landscape character. The proposed development will be largely unnoticed in the landscape. It will be difficult to perceive changes to landscape elements/landscape character. The proposed development, when perceived with other wind energy schemes, will be largely unnoticed in the landscape.	Receptors would experience a very low level of change to views. The proposed development will be barely perceived in the wider landscape and easily go unnoticed. It would result in a difficult to perceive change in view. The proposed development, when perceived with other wind energy schemes, will be largely unnoticed in the view.
No change	Indiscernible level of change. Equivalent to no change.	Indiscernible level of change. Equivalent to no change.

Level of Effect Methodology

2.39 An 'effect' is defined as the degree of change likely to occur as a result of the construction, operation and decommissioning of the proposed development.

2.40 The level of the effects on landscape character and visual amenity receptors is determined by balancing the sensitivity of the receptor and the magnitude of impact as a result of the construction, operation and decommissioning of the proposed development.

2.41 The correlation between the sensitivity of the landscape character and visual amenity receptor, and the magnitude of impact to determine the level of effect is summarised in **Table 3**. The matrix is however not a prescriptive tool and the analysis of the level of effects requires the exercise of professional judgement. As stated in paragraph 2.23 of GLVIA "*professional judgement is a very important part of LVIA. While there is some scope for quantitive measurement of some relatively objective matters… much of the assessment must rely on qualitative judgements*…" It is essential that professional judgements are described in a transparent and clear manner.

Table 3 Overall determination of the level of effect on landscape character and visual amenity receptors

		Sensitivity of receptor				
		High	**Medium-high**	**Medium**	**Medium-low**	**Low**
Magnitude of impact	**High**	Major	Major or Major-moderate	Major-moderate or Moderate	Moderate or Moderate-minor	Moderate-minor or Minor
	Medium-high	Major or Major-moderate	Major-moderate or Moderate	Moderate	Moderate-minor or Minor	Minor or Minor-negligible
	Medium	Major-moderate or Moderate	Moderate	Moderate	Minor or Minor-negligible	Minor-negligible or Negligible
	Medium-low	Moderate or Moderate-minor	Moderate-minor	Moderate-minor or Minor	Minor-negligible or Negligible	Negligible
	Low	Moderate-minor or Minor	Minor or Minor-negligible	Minor-negligible or Negligible	Negligible	Negligible
	Negligible	Minor or Minor-negligible	Minor-negligible or Negligible	Negligible	Negligible	Negligible
	No change	Neutral	Neutral	Neutral	Neutral	Neutral

2.42 The broad definitions of the level of effects, to determine the significance of effect, include:

- Neutral – no change;
- Negligible – barely perceptible and not likely to be critical in the decision making process;
- Minor-negligible – perceptible and not likely to be critical in the decision making process
- Minor – perceptible and not likely to be critical in the decision making process;
- Moderate-minor - perceptible and not likely to be critical in the decision making process
- Moderate – perceptible and not likely to be key decision making factors;
- Major-moderate – considered to be important and are likely to be material in the decision making process; and
- Major – represent key factors in the decision making process and are likely to suffer the most damaging impact and loss of resource integrity.

2.43 ’Major-moderate’ and ‘Major’ impacts are determined as ‘significant’ with reference to the EIA Regulations.

2.44 It is important to note that effects can be adverse (negative) or beneficial (positive) or no change (neutral). The broad criteria for assessing the beneficial, adverse and neutral effects are outlined in **Table 4**.

Table 4 Broad criteria for assessing the beneficial, adverse and neutral effects on landscape character and visual amenity receptors

Level of effect	Landscape character description	Visual amenity receptor description
Beneficial	Improvement to landscape elements and/or features. Improvement to the value of landscape character and resource. This could also include removal of existing detractors of the landscape character.	Introducing elements that improve the view. This could also include removal of existing detractors to the view.
Adverse	Removal of landscape elements and/or features. Degradation of landscape character and resource.	Introducing elements that degrade the view.
Neutral	Changes to landscape character or landscape elements that would be neither positive nor negative. Could include the addition of elements within the landscape that already exists (for example housing) which would not involve the degradation or removal of valued aspects of the landscape resource.	Changes to views that would be neither positive nor negative. Could include the addition of elements within the view that already exists (for example housing) which would not involve the degradation of removal of valued aspects of the view.

Cumulative Assessment Methodology

2.45 Cumulative assessment is concerned with the 'additional' effects of the proposed development when perceived with other operational, consented or pending planning wind energy schemes. Operational wind energy schemes also form part of the existing conditions assessment.

2.46 Within the cumulative assessment, the proposed development is considered 'in addition' to:

- Existing wind energy schemes in the study area. This is also considered as part of the baseline assessment;
- Consented wind energy developments in the study area, where they are highly likely to exist; and
- 'Pending planning' wind energy developments in the study area, where there is only the potential that they will exist.

2.47 Those wind energy schemes currently undergoing screening or scoping are not considered as part of the cumulative assessment.

2.48 The cumulative assessment considers the additional impacts and effects on landscape character, landscape relevant designations and visual amenity receptors and their views.

2.49 In relation to visual amenity receptors, there are two types of impact. These include:

- Combined impacts which occur when the receptor is able to perceive two or more wind energy developments from one viewpoint, in combination or in succession; and

- Sequential impacts which occur when the receptor has to move to another viewpoint to see different wind energy developments, travelling along regularly used routes such as roads or popular or recognised public rights of way.

3. Existing Conditions

3.1 The description of existing conditions establishes the landscape character and visual amenity context within the study area and forms the basis of the LVIA.

3.2 The existing conditions include descriptions of the site and its immediate surrounds, landscape relevant designations, landscape character and visual amenity receptors and their views within the study area as well as information on operational wind energy schemes.

The Site and Surrounds

3.3 The site is situated on the upper slopes of a china clay tip and comprises of rough made ground, crossed by numerous working access tracks and at least partially regenerated with scrub/rough grassland.

3.4 The site is within and surrounded by a landscape heavily influenced by the immediate china clay works and is punctuated by tips, workings and pits as well as scattered operational wind energy schemes.

3.5 Scattered within the surrounding industrial landscape are single, Band C[10] – between 61-99m in height to blade tip, operational wind turbines including Higher Goonamarth Farm to the south-east, Blackpool Quarry to the south and Greensplat to the south-east.

3.6 Annotated aerial photographs of the site and its immediate surrounds, showing its location within the expansive industrial china clay landscape is illustrated in **Figure 2**.

3.7 The site is of **medium-low** sensitivity, defined in Table 1 of this LVIA as:

"*Reasonably valued landscape elements and/or landscape character. Could include features/areas that exhibit positive character but which may have evidence of alteration, degradation and erosion of features resulting in areas of more mixed character. Some detractors likely to be present*."

Value of the Site

3.8 The site is not within any areas designated nationally, regionally or locally for their landscape value and/or scenic quality.

[10] The height brackets of the wind energy schemes have been taken from Table 3.2, Wind Development Sizes, Cornwall Council, Review of the Cornish Renewable Energy Landscape Sensitivity (RELS) Assessment, Final Report, December 2020. Of relevance, these include:
Band A – between 18-25m in height to blade tip;
Band B – between 26-60m in height to blade tip;
Band C – between 61-99m in height to blade tip; and
Band D – between 100-150m in height to blade tip.

3.9 With reference to Table 1 in TGN 02/21[11], which defines a 'valued landscape,' a range of factors and indicators may be considered when determining the value of landscapes (outside designated landscapes). These are identified in **Table 5.**

Table 5 Broad criteria for assessing landscape value of the site and immediate surrounds

Factor	Definition and summary assessment of site and immediate surrounds
Landscape with clear evidence of ecological, geological, geomorphological or physiographic interest which contribute positively to the landscape	The Ecology Impact Assessment[12] has identified that the site comprises a mosaic of habitats relating to habitat restoration work. There are areas of modified grassland and dense ruderal/ephemeral swards, crossed with tracks, banks and dry ditches. High steep banks are vegetated with varied density scrub comprising of willow and rhododendron. There are no particularly distinctive geological, geomorphological or physiographic features in and around the site that will be significantly affected.
Landscape with clear evidence of archaeological, historical or cultural interest which contribute positively to the landscape	With reference to the Heritage Impact Assessment (HIA)[13], there will be no direct impacts as both proposed wind turbines will be located on a bench tip, on the edge of an infilled mica lake. There are relatively few designated heritage assets surrounding the site, with only one Listed Building and one Scheduled Monument within 1km, although there are Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens and World Heritage Site within 10km. The scale and artificiality of this landscape serve to diminish the apparent scale of the proposed wind turbines, and the bench tips provide extensive screening. As a result, the number of designated heritage assets where an appreciable adverse effect could be experienced will be few and, overall, the effect on the historic environment is adjudged to be negligible adverse.
Landscape which is in a good physical state both with regard to individual elements and overall landscape structure	The site is situated on the upper slopes of a china clay tip and comprises of rough made ground, crossed by numerous working access tracks and at least partially regenerated with scrub/rough grassland.
Landscape which is connected with notable people, events and the arts	There are no notable associations to the landscape of the site.
Landscape that has a strong sense of identity	The landscape of the site and its surrounds appears to be typical of the *St Austell or Hensbarrow China Clay Area (CCA27),* which extends in a broad band from east to west across the centre of the study area.
Landscape offering recreational opportunities where experience of landscape is important	The site is not publicly accessible.
Landscape that appeals to the senses, primarily the visual sense	The site is set within a dramatic and varied landscape of china clay waste tips and areas of rough vegetation, characterised by open-pit mining. The mix of active and disused sites creates a

[11] Landscape Institute, Technical Guidance Note 02/21 Assessing Landscape Value Outside National Designations

[12] Western Ecology, Ecological Impact Assessment, November 2025

[13] SouthWest Archaeology, Heritage Impact Assessment, November 2025

Factor	Definition and summary assessment of site and immediate surrounds
	dramatic 'lunar' landscape of huge, light coloured waste tips and settling ponds. Dominant visual elements include the large white spoil heaps, either conical or flat-topped in form, aqua-blue pools, areas of rough ground and natural and naturally regenerated scrub and heath, as well as large quarry pits.
Landscape with a strong perceptual value notably wildness, tranquillity and/or dark skies	The site is within a vivid and dynamic visual landscape character quite unlike surrounding areas. It is a rugged area of great variation and drama. Heavily influenced by its industrial character, there is no sense of wildness or tranquillity. As defined by GLVIA and TIN 01/2017[14], tranquillity is "*a state of calm and quietude associated with peace, considered to be a significant asset of the landscape*." Separated from other receptors including roads and settlements, there may be the potential for dark skies on the site.
Landscape which performs a clearly identifiable and valuable function, particularly in the healthy functioning of the landscape	The site is within an industrial landscape, heavily influenced by its former use as part of the expansive china clay works.

3.10 In summary, overall, although the site has some valued elements, it is not a valued landscape, as defined by the list of factors and indicators to be considered when determining the value of landscapes.

Cumulative Wind Energy Schemes

3.11 Operational, consented and pending planning wind energy schemes, greater than 15m to blade tip, are identified within the 20km radius study area. The presence of operational wind energy schemes is also included within the descriptions of existing conditions.

3.12 The operational, consented and pending planning wind energy schemes are listed, with their location illustrated, on **Figure 3**. This cumulative information is constantly changing and was last updated at the beginning of September 2025.

3.13 Scattered within the surrounding industrial landscape in close proximity to the site (within 5km radius) are single, operational Band C[15] – between 61-99m in height to blade tip - wind turbines including Higher Goonamarth Farm to the south-east, Blackpool Quarry to the south, Greensplat to the south-east, Gunheath Quarry to the north-east and Gaverigan Farm to the north-west. There are also smaller single, operational Band B – between 26-60m in height to blade tip – wind turbines (within 5km radius) at Henavisten Farm to the south-west, Ninnis Farm to the south, Bodinnick Farm and Land south-east of

[14] The Landscape Institute, Technical Information Note 01/17, Tranquillity – An Overview

[15] The height brackets of the wind energy schemes have been taken from Table 3.2, Wind Development Sizes, Cornwall Council, Review of the Cornish Renewable Energy Landscape Sensitivity (RELS) Assessment, Final Report, December 2020. Of relevance, these include:
Band A – between 18-25m in height to blade tip;
Band B – between 26-60m in height to blade tip;
Band C – between 61-99m in height to blade tip; and
Band D – between 100-150m in height to blade tip.

Resugga Farm to the south-west respectively. The Band A – between 18-25m in height to blade tip - Mount Stamper Farm also occurs to the south-east.

3.14 Scattered within the surrounding industrial landscape in close proximity to the site (within 5km radius) are consented single Band D – between 100-150m in height to blade tip wind turbines at East Karslake to the south-east, Longstones to the south-east, Higher Goonamarth 2 to the south-east, Wheal Martyn to the east and Burngullow to the south. There is also a pending planning, single Band D – between 100-150m in height to blade tip - wind turbine to the south-east at Higher Biscovillack.

3.15 In summary:

- There are 101 operational wind energy schemes within the 20km radius study area. These vary from single wind energy schemes to large clusters, although the majority of operational wind energy schemes are single wind turbines. The operational wind energy schemes vary in size from Band A up to Band D;
- The operational wind energy schemes in the study area appear to be well-scattered throughout the study area, including within the industrial china clay landscape, although largely avoiding the sensitive coastal fringes, the National Landscape and the dense settlements;
- There are 5 single consented wind energy schemes within the 20km radius study area. The consented wind energy schemes are all focused within 5km radius of the site and are all Band D; and
- There are 2 Band D pending planning wind energy schemes within the 20km radius study area, including the repowering at Bears Down to the north-west, over 10km away as well as the single, 135m high single wind turbine at Higher Biscovillack to the south-east, within 5km radius of the site.

Landscape Character

Landscape Relevant Designations

3.16 The site is **not** recognised for its importance or value through any landscape relevant designations.

3.17 There are however landscape relevant designations within the study area. These are shown in **Figure 4** and described in more detail below[16]:

- The **high** sensitivity Cornwall National Landscape occurs approximately 6.7km to the south-east of the site at its closest point, extending to the south-eastern fringes of the 10km radius study area.

  As illustrated in **Figures 8 and 9**, the Cornwall National Landscape extends over the wider 20km radius study area and extends to the north, north-east, east, south and

[16] The LVIA considers historic landscape designations in terms of their role in defining landscape character only, such as Conservation Areas and Registered Parks and Gardens. More detail on heritage designations can be found in the Heritage Impact Assessment by SouthWest Archaeology which accompanies the planning application.

south-west, largely focussed along the coastline but also extending across the distinctive upland landscape of Bodmin Moor to the north-east.

The Cornwall National Landscape is made up of twelve separate geographical areas and contains some of Britain's finest coastal scenery.

As identified in the Cornwall National Landscape Management Plan[17], the National Landscape in the study area is within Area 9: South Coast Central.

The key landscape characteristics of Area 9: South Coast Central is described as broad and deep coastal and tidal river landscape, bisected by sinuous creeks. The ridges between the creeks are rounded and covered with a medium-scale field pattern, bisected with diverse Cornish hedges, with a mix of pasture and arable use and are often scattered with farms. Woodland, often sessile oaks, cloak the slopes and enclose the creeks. **Viewpoint 15 (Figures 26A-26D)** illustrates the view from an open and elevated location along a public right of way within the National Landscape.

Area 9: South Coast Central is also described within the Cornwall Landscape Sensitivity Assessment (LSA)[18] as:

- A coastline of sweeping and extensive bays with majestic high cliffs rising above rocky shores, sandy beaches and small coves;

- Distinctive rocky promontories;

- Subtly rolling inland plateau;

- Far-reaching panoramic views from the rugged cliff tops;

- Medieval fields small in scale with irregular boundaries bounded by bare low stone walls near the exposed coasts to being broad and well-vegetated in the sheltered valleys;

- Outlines of early strip field systems are preserved in the current field patterns;

- Woodlands on steep valley sides, alongside streams and in valley bottoms in combination with other valuable wetland habitats such as fens and rush pasture;

- Coastal rough ground including scrub and bracken on wild cliff tops;

- A tranquil landscape relatively free of man-made land marks or structures;

- Rich in discernible pre-historic features from the largest Bronze Age burial mound in Cornwall at Carne Beacon to the County's largest prehistoric enclosure at the Iron Age cliff castles at Dodman;

- Estates and ornamental parklands notably at Caerhays and Heligan taking advantage of the sheltered valleys;

- Attractive coastal villages sheltered in the coves at stream mouths or around picturesque small harbours as at Mevagissey and Gorran Haven;

- Sparse settlement – an even distribution of hamlets and farmsteads linked by narrow winding lanes with high hedges and blind corners; and

- Traditional black and white painted metal finger signs.

In addition, the LSA states that within Area 9: South Coast Central of the National Landscape "*qualities that may particularly be affected by wind energy development are the majestic scale of the cliffs, far reaching panoramic views from the rugged cliff tops,*

[17] Cornwall Council, The Cornwall National Landscape Management Plan, 2022-2027, Adopted May 2022

[18] Cornwall Renewable Energy Advice, Annex 1: An assessment of the landscape sensitivity to on-shore wind energy and large-scale photovoltaic development in Cornwall, Cornwall Council, March 2016

the wild character of the cliff tops, and the prominence and skyline of pre-historic features from the largest Bronze Age burial mound in Cornwall at Carne Beacon to the County's largest prehistoric enclosure at the Iron Age cliff castles at Dodman, and the narrow winding lanes with high hedges and blind corners."

The Cornwall National Landscape is also protected by CC in Policy 23[19] which states that "*great weight will be given to conserving the landscape and scenic beauty within or affecting the setting of the [National Landscape]. Proposals must conserve and enhance the landscape character and natural beauty of the [National Landscape] and provide only for an identified local need and be appropriately located to address the [National Landscape's] sensitivity and capacity. Proposals should be informed by and assist the delivery of the objectives of the Cornwall and Tamar Valley [National Landscape] Management Plans including the interests of those who live and / or work in them...*"

- The **high** sensitivity Cornwall and West Devon Mining Landscape World Heritage Site (WHS) occurs approximately 6.7km to the east and south-east of the site at its closest point, extending to the eastern fringes of the study area.

  The Cornwall and West Devon Mining WHS is recognised for the substantial remains as a result of the rapid growth of pioneering copper and tin mining in the 18th and 19th centuries, leaving behind a legacy of deep underground mines, engine houses, foundries, new towns, smallholdings, ports and harbours and their ancillary structures. The remains are a testimony to the contribution Cornwall and West Devon made to the Industrial Revolution in the rest of Britain.

  The Cornwall and West Devon Mining WHS is also protected by CC in Policy 24 which states "*development within the Cornwall and West Devon Mining Landscape World Heritage Site (WHS) and its setting should accord with the WHS Management Plan. Proposals that would result in harm to the authenticity and integrity of the Outstanding Universal Value, should be wholly exceptional. If the impact of the proposal is neutral, either on the significance or setting, then opportunities to enhance or better reveal their significance should be taken*."

- There are four **medium-high** sensitivity Areas of Great Landscape Value (AGLV) in the study area including:

  - Upper Fal Valley, approximately 4.2km to the south-west of the site at its closest point, extending to the south-western fringes of the study area. This is a highly tranquil and naturalistic landscape focused on a series of well-wooded valleys which carve through agricultural land defined by an intact pattern of medieval enclosure with Cornish hedgerows. There is a strong sense of time-depth owing to the prehistoric remains, historic settlements and designed estate parklands. The inaccessibility of the landscape has resulted in the area retaining a strong rural character which creates a feeling of remoteness with a distinct sense of place;

  - Helman Tor and Luxulyan Valley, approximately 7.4km to the east of the site at its closest point, extending to the eastern and north-eastern fringes of the study area. The AGLV is an intact and high quality landscape of varied natural, historic and cultural interest. The two distinct contrasting landscape types consisting of moorland and high hills at Redmoor, and deep incised wooded valleys at Luxulyan Valley create a stunning area that can easily be recognised. Views across this unique landscape can typically be seen from rocky outcrops at higher elevations, such as at Helman Tor. **Viewpoint 17 (Figures 28A-28D)**, illustrates the expansive views from Helman Tor. The landscape is rather peaceful, with western parts of the AGLV being particularly

[19] Cornwall Council, Cornwall Local Plan, Strategic Policies 2010 – 2030, Adopted November 2016

quiet, dark night skies can be seen throughout, combining to create both a scenic and peaceful area. The AGLV is also especially valued due to its substantial areas of open access land and public access, including the Saint's Way recreational route;

- Camel and Allen Valleys, approximately 7.1km to the north of the site at its closest point, extending to the northern fringes of the study area. The AGLV is cherished for its distinct incised wooded valleys, exposed ridgelines, and intact medieval landscape. It is a valued destination for recreation, with a network of public rights of way including the popular multi-use Camel Trail. There are many historic features within the landscape including the Registered Park and Garden at Pencarrow, clusters of prehistoric settlements and hillforts and historic church towns. The steep wooded valley slopes within the AGLV dominate the landscape, the combination of the tree coverage and high-hedged lanes create a feeling of 'secretness' and enclosure when within the valleys. In contrast, the exposed ridge between the River Camel and the River Allen consists of farmland with mostly intact medieval field patterns and boundaries marked by Cornish hedges; and

- Arrallas Farm/St Erme River Valleys, approximately 8.1km to the west of the site at its closest point, extending to the western fringes of the study area. It is valued due to its traditional rural character with a plethora of medieval, arable fields typical of Cornish countryside landscape. Features including the medieval manorial settlement of Arrallas and prehistoric remains create a strong sense of time-depth. The central section of the AGLV is characterised by the tributary valleys that flow into the Tresillian River, which are populated with areas of deciduous woodland creating a sense of enclosure and connection with the landscape. Within the landscape, there is a strongly rural character with high levels of tranquillity and a good experience of dark night skies.

AGLVs are areas of high landscape quality with strong and distinctive characteristics which make them particularly sensitive to development.

There are also proposed extensions and changes to the boundaries for the AGLV – identified as candidate AGLVs[20] including to the Upper Fal Valley to the south-west, Helman Tor and Luxulyan Valley to the east and the Arrallas Farm/St Erme River Valleys to the west. These are currently considered for adoption.

CC in Policy 23 recognises the importance of AGLVs and states that development within AGLVs "*should maintain the character and distinctive landscape qualities of such areas*."

- There are two **high** sensitivity Registered Parks and Gardens in the study area, including:

  - Tregrehan, Grade II*, approximately 7.6km to the south-east of the site at its closest point. This is a mid-19th century garden and pleasure grounds, together with significant plant collections, set in parkland; and

  - Heligan, Grade II, approximately 9km to the south of the site at its closest point. This is a late 18th century and early 19th century park and gardens, with an extensive plant collection.

  Registered Parks and Gardens are protected by CC in Policy 24 which states that "*development proposals will be expected to… conserve and, where appropriate, enhance the design, character, appearance and historic significance of historic parks and gardens*."

[20] Cornwall Council, Cornwall Area of Great Landscape Value (AGLV) Review, 2023 (on-line via interactive map www.cornwall.gov.uk)

- Some of the towns and villages in the study area have been recognised as **high** sensitivity Conservation Areas. These include:

  - St Austell, approximately 4.6km to the south-east;

  - Charlestown, approximately 6.8km to the south-east;

  - Pentewan, approximately 9.2km to the south-east;

  - Grampound, approximately 8.6km to the south-west; and

  - St Columb Major, approximately 9.2km to the north-west.

  Conservation Areas are protected by CC in Policy 24 which states that "*development proposals will be expected to… maintain the special character and appearance of Conservation Areas..."*

- There is minimal **high** sensitivity Ancient Woodland in the study area, the closest, Bodinnick Wood, approximately 4.7km to the south-west, within the Upper Fal Valley AGLV.

  Ancient Woodlands are protected by CC in Policy 23 which states that "*development must avoid the loss or deterioration of Ancient Woodland…*"

Landscape Character

National Landscape Character

3.18 The Natural England[21] national landscape character information is referred to for a strategic understanding of landscape character within the study area. This outlines the wider setting for the site and provides a context for the description of the local landscape character.

3.19 Within the study area, there are two national landscape character areas. Their location is illustrated in **Figure 5**.

3.20 The site, broadly stretching in a band from the east to the west of the study area, including to the eastern and north-eastern fringes of the study area is within the *Hensbarrow national landscape character area (154)*.

3.21 The *Hensbarrow national landscape character area (154)* is described as an interesting and varied landscape, named after Hensbarrow Downs, the granite hills which are the focus of the china clay industry. The world-famous Eden Project is located in an old china clay pit and to the north, Goss Moor forms an open and wild landscape that is touched by human infrastructure such as roads, electricity pylons and historical tin extraction. The eastern side is an area of contrast between the wild and open granite tors, the biodiverse heath and willow carr and an idyllic pattern of fields bounded by Cornish hedges and woodlands. Settlements are fairly small, and the local vernacular is of granite or cob and granite buildings, roofed with slate and sometimes with hanging slate. The locally produced concrete blocks are also a distinctive feature.

3.22 The key characteristics of the *Hensbarrow national landscape character area (154)* include:

- China clay spoil tips dominate this landscape with both conical and terraced heaps. They are often vegetated but the tops of conical heaps can remain bare of vegetation;

[21] National Character Area profiles (www.nationalcharacterareas.co.uk)

- Buildings associated with the china clay industry including chimneys, drying kilns and mica dams;
- Active china clay works are obvious as distinctive white terraces in the landscape;
- A dispersed settlement pattern of hamlets and farmsteads with many villages being associated with the china clay industry. The local vernacular is granite and slate buildings which form the centre of the towns. Much later development represents a shift in the vernacular towards locally produced concrete blocks and sheet metal associated with industrial sites;
- Mineral extraction industry, such as tin mining and china clay extraction, is prominent in the landscape. The china clay deposits are thought to be the largest in the world;
- There are many abandoned mine buildings as well as larger structures such as the viaduct at Luxulyan. Many of these are of historical significance and add character to the area;
- Pylons and wind turbines are a notable feature of the western landscape and new solar farms near Luxulyan stand out from the green fields that surround them;
- Sheltered, wooded valleys with willow scrub and fast-flowing streams cut north to south through the area heading to the sea;
- Key habitats associated with the area include lowland heathland, purple moor grass and rush pasture and fens, all of these being of European importance;
- The mosaic of habitats is home to many rare and iconic species, for example the spider Araneus triangulus, marsh fritillary, gold-ringed dragonfly, early purple orchids growing on roadside Cornish hedges, and birds such as buzzard and yellowhammer;
- The eastern area is dominated by irregular small fields, fringed with Cornish hedges and supporting small farmsteads and hamlets; and
- The granite geology of the area is showcased by striking tors such as Helman Tor, Roche Rock and huge granite boulders known as moorstone.

3.23 To the north, west and south, extending to the fringes of the study area, is within the *Cornish Killas national landscape character area (152)*.

3.24 The *Cornish Killas national landscape character area (152)* forms the main body of the Cornish landmass around the granite outcrops of Bodmin Moor, Hensbarrow, Carnmenellis, West Penwith and The Lizard. The northern half of the area, with its open character and general lack of tree cover, affords long views across Cornwall to neighbouring areas and out to sea. The gently rolling scenery, sheltered coves, headlands, and estuaries of the south coast contrast with the exposed high cliffs and more rugged nature of the north coast. The rocky coastline is characterised by coves and headlands and possesses an impressive number of important geological exposures.

3.25 The key characteristics of the *Cornish Killas national landscape character area (152)* include:

- A coastline of rugged, sheer cliffs, sandy beaches with rolling surf and dramatic sand dune systems on the north coast;
- Intimate coves and deep, steep-sided rias (drowned valleys) with broadleaved woodland down to the tidal edge;
- Rocky coastline characterised by coves and headlands, with an impressive number of important geological exposures;

- Numerous fishing villages and small ports, many now developed into bustling summer tourist destinations, with small coves, quays and fish cellars slipways predominating;
- An undulating shillet (shale) plateau, with open vistas and a characteristic network of stone-faced earthen banks (Cornish hedgebanks), many enclosing fields in use since medieval times. From higher ground there are long views across a rather uniform landscape of mixed farming, with small villages and market towns;
- Renewable energy structures, such as wind and solar farms, which are a recent addition to the landscape;
- Broadleaved wooded valleys, dominated by internationally important western oak woodland habitat, which dissect the plateau and lead to the south coast;
- Many outstanding historic parks associated with the sheltered flooded river valleys along the south coast and benefiting from the mild climate. These have developed on both mining profits and more traditional historic estates;
- Important industrial archaeological sites, including hard rock mining with its distinctive engine houses and quarrying sites, some of which form part of the Cornwall and West Devon Mining Landscape WHS;
- A dispersed settlement pattern of hamlets, farmsteads, historic mining villages and small fishing villages, often formed of simple, austere buildings, with nonconformist chapels and wayside crosses, and located where steeply incised valleys meet the coast;
- Coastal defences and 16th century Henrician forts along the south coast, with clustering around Falmouth and the Fal, St Austell Bay and Whitsand Bay towards Plymouth;
- A number of market towns located between the higher moorland and the coast. Coastal towns were established on a strong maritime industry; and
- Lowland heath, wet woodland, wetland, scrub and unimproved grassland complexes, which are common and are sometimes associated with areas of past industrial activity.

Local Landscape Character

3.26 CC[22] has identified nine character areas within the study area. These are geographically discrete areas with their own sense of place and a distinct localised pattern of elements in the landscape that are unique to a specific area of Cornwall.

3.27 The landscape character areas are described in more detail below and their location illustrated in **Figure 6**.

3.28 The site is within the *St Austell or Hensbarrow China Clay Area (CCA27)*, which extends in a broad band from east to west across the centre of the study area. **Viewpoints 1-11 and Viewpoint 18 (Figures 12-22 and 29)**, illustrates the landscape of the *St Austell or Hensbarrow China Clay Area (CCA27).*

3.29 The *St Austell or Hensbarrow China Clay Area (CCA27)* is a dramatic and varied landscape of china clay waste tips and areas of rough vegetation, characterised by open-pit mining. The mix of active and disused sites creates a dramatic 'lunar' landscape of huge, light coloured waste tips and settling ponds within a relic pastoral farming landscape. It is a rugged area of great variation and drama. Dominant visual elements

[22] Cornwall Council, *Landscape Character Assessment, 2022* (on-line via interactive map www.cornwall.gov.uk)

include the large white spoil heaps, either conical or flat-topped in form, aqua-blue pools, areas of rough ground and natural and naturally regenerated scrub and heath, as well as large quarry pits. The scale of these features contrasts dramatically with the small-scale medieval field patterns surrounding settlements. The fluctuating and changing condition and relationship of elements in this landscape and the natural regeneration of heathland, new woodland planting and rough ground provide a vivid and dynamic visual landscape character quite unlike surrounding CCAs.

3.30 The *St Austell or Hensbarrow China Clay Area (CCA27)* is not recognised for its value through any landscape relevant designations.

3.31 The *St Austell or Hensbarrow China Clay Area (CCA27)* is however influenced by the presence of existing, largely single, wind turbines, including single, Band C[23] – between 61-99m in height to blade tip - operational wind turbines at Higher Goonamarth Farm, Blackpool Quarry, Greensplat, Gunheath Quarry and Aggregate Industries as well as smaller single Band B – between 26-60m in height to blade tip – operational wind turbines at Henavisten farm and Land at Menna Farm and a single Band A – between 18-25m in height to blade tip – operational wind turbine at Mount Stamper.

3.32 The key views and perceptual qualities of the *St Austell or Hensbarrow China Clay Area (CCA27)* includes:

- The large conical and flat-topped spoil heaps form a distinctive and visually prominent skyline, visible in distant views from the surrounding area;
- Panoramic views are possible from elevated areas including Carloggas Downs and Hensbarrow, offering extensive and scenic views over *St Austell Bay and Luxulyan Valley (CCA30)* and the *Mid Cornwall Moors (CCA26)*;
- Natural landforms such as Hensbarrow Beacon and granite outcrops at St Dennis and Roche are distinctive, and discernible in distant views, although in places these are dwarfed by the large spoil heap landforms and built features such as pylons and operational wind turbines;
- The landscape character is strongly influenced by the dominant scale of the china clay workings, with the mix of active and disused sites creating a dramatic ‘lunar’ landscape of large, pale-coloured spoil tips and bright turquoise settling ponds. The landscape has a dynamic character as a result of ongoing extraction operations;
- Relics of historic mining activity and industry are scattered across the area, including clay dry stacks and the Gover Viaduct on the north edge of St Austell; and
- Areas of light pollution exist around Melbur Refinery, Goverseth and Bugle, with light pollution from the neighbouring St Austell also impacting the dark night skies of the CCA. This is a heavily disrupted and active landscape with relatively low levels of tranquillity.

[23] The height brackets of the wind energy schemes have been taken from Table 3.2, Wind Development Sizes, Cornwall Council, Review of the Cornish Renewable Energy Landscape Sensitivity (RELS) Assessment, Final Report, December 2020. Of relevance, these include:
Band A – between 18-25m in height to blade tip;
Band B – between 26-60m in height to blade tip;
Band C – between 61-99m in height to blade tip; and
Band D – between 100-150m in height to blade tip.

3.33 The most valued landscape attributes and key sensitivities of the *St Austell or Hensbarrow China Clay Area (CCA27),* which would therefore be most sensitive to change are summarised as:

- Distinctive large-scale spoil heaps and turquoise-coloured settling ponds, lakes and mica dams;
- Small areas of pastoral farmland and rough grazing enclosed by stone-faced Cornish hedges;
- Distinctive small-scale mining settlements with a strong character and sense of place, including the small-scale field pattern of miners' smallholdings around St Dennis;
- Fragmented areas of lowland heathland, scrub and broadleaved woodland with areas of natural regeneration and restored heathland, woodland and rough ground;
- Visible time-depth of structures and patterns within the landscape - Bronze Age barrows, medieval field pattern, 19th century mining relics, and modern china clay workings;
- Use of locally-occurring stone in buildings, including china stone and granite;
- Long views from elevated areas towards St Austell Bay and Gribben Head on the coast; and
- Contrast between large-scale spoil heaps and small-scale medieval field patterns.

3.34 The *St Austell or Hensbarrow China Clay Area (CCA27)* has been subject to great change and is poorly managed, with fragmented ecological corridors and intensive land use. However, this is a vibrant and dynamic industrial landscape of deep pits and steeply angled tips overlying an older farming and mining landscape, the remnants of which can be found amongst the present day workings. There is also scattered, generally single and operational wind energy schemes present, nestled within the diverse predominantly industrial landscape. Although a distinctive landscape, it has a weak landscape structure, partly degraded with frequent detractors with very good to substantial ability to accommodate change. This is a large scale industrial landscape with significant human influence, the presence of the prominent and distinctive skyline of huge pale spoil heaps and the presence of historic skyline features increase levels of sensitivity to wind energy development. As a result, it is of **medium-low** sensitivity, defined in Table 1 of this LVIA as "*reasonably valued landscape elements and/or landscape character. Could include features/areas that exhibit positive character but which may have evidence of alteration, degradation and erosion of features resulting in areas of more mixed character. Some detractors likely to be present*."

3.35 To the north-west, north and north-east of the site, extending in a broad band from east to west, including to the north-eastern fringes of the study area, is the *Mid Cornwall Moors (CCA26)*. **Viewpoints 12, 16 and 17 (Figures 23, 27 and 28)** illustrates the landscape of the *Mid Cornwall Moors (CCA26).*

3.36 The *Mid Cornwall Moors (CCA26)* is an open plateau comprising the remnants of the poorly drained wildland/moorland of Goss Moor at its heart and Red Moor, Bokiddick Downs and Breney Common to the east. These combine with areas of rough grazing and pastoral farmland on the surrounding slopes. Pastoral farmland is largely of medieval origin comprising small-scale fields bound by stone-faced Cornish hedges, with distinctive strip fields around Tregoss. The flora and fauna associated with the wetlands and heathlands within this area are of local, national and international importance. There is a strong visual relationship with surrounding, more elevated character areas including the distinct altered skylines of the *St Austell and Hensbarrow China Clay area (CCA27)*, to

the south, south-west and south-east. Tree cover is sparse on higher ground, but the sheltered slopes and lower land are well-wooded. The area is affected by industrial and residential development and infrastructure and is not recognised for its value through any landscape relevant designations. There are also generally single or small clusters of wind energy schemes present, including the Band C – between 61-99m in height to blade tip - operational wind turbines at Trebilcock Farm, Gaverigan Farm and Lestoon Farm as well as a small cluster of Band D turbines – between 100-150m in height to blade tip – at South of A30.

3.37 The character of the *Mid Cornwall Moors (CCA26)* is largely intact and well-managed but diluted by pylons, the dominance of transport corridors and large-scale industry. As a result, it has a **medium** sensitivity, defined in Table 1 of this LVIA as "*moderately valued or 'everyday' landscape elements and/or landscape character. These are landscapes in good condition which could be appreciated by the community but has little or no wider recognition. Some detractors could be present*."

3.38 Further to the north of the site, extending to the fringes of the study area is the *Camel and Allen Valleys (CCA29)*, which is also partly within the locally recognised Camel and Allen AGLV, towards the northern fringes of the study area.

3.39 The *Camel and Allen Valleys (CCA29)* cut through the surrounding undulating plateau. The valleys are intimate and wooded, especially the Camel, with coniferous and mixed woodland including oak and ash woodlands. The Allen Valley has broadleaved woodland including significant areas of Ancient Woodland. The plateau tops are open and are dominated by estate farms with a mix of improved pasture and arable land within a mostly intact medieval field pattern of prominent Cornish hedges with few trees. The sloping lands to the south of the Camel, where there is a considerably greater proportion of more recently enclosed land, have a stronger field pattern with many hedgerow trees. Settlement is clustered in small villages on higher ground with distinctive churches.

3.40 There are scattered operational smaller Band B – between 26-60m in height to blade tip – single turbines within the *Camel and Allen Valleys (CCA29)* , but excluded from the AGLV, at East of Hendra Farm, Rosewarrick, West of Lancoria Farm, Oak Tree Lodge and Higher Woodlay Farm.

3.41 The *Camel and Allen Valleys (CCA29)* has a **medium** sensitivity, but increasing to **medium-high** within the AGLV. **Medium-high** sensitivity is defined in Table 1 of this LVIA as "*highly valued landscape elements and/or character. These are landscapes in very good condition that are considered to be of importance to conserve. No or few detractors present. Likely to be locally designated, such as Areas of Great Landscape Value and could include valued landscapes of scenic quality and rarity on a regional or local scale*."

3.42 To the east of the site, extending to the north-eastern, eastern and south-eastern fringes of the study area is the *St Austell Bay and Luxulyan Valley (CCA30)*.

3.43 The *St Austell Bay and Luxulyan Valley (CCA30)* is defined by the low rocky cliffs of the coastline forming the northern and eastern side of St Austell Bay and are punctured by the wide alluvial estuary at Par Beach, where extensive sands have built up in the mouth of the Par river. The wide, flat-bottomed valley of the River Par and its deep tributary valleys extend inland and have either been settled and heavily industrialised, or have developed wet woodlands. Another area of alluvial plain stretches inland at Par Moor, running up behind the cliffs of Carlyon Bay. At Par, an industrial docks complex was developed around the deep-water channel. The higher ground in this area is heavily built up with the urban centre of St Austell and sprawling residential areas of Carlyon Bay, St

Blazey and Par, while the coastal zone with long sandy beaches at the base of the cliffs is popular for recreation. The eastern parts of the coastline are marked by rocky cliffs with occasional sheltered coves. Inland is a landscape of woodland pastoral farmland, changing to wetland between the settlements of Par and Tywardreath. The landscape is scattered with evidence of both past and present industry, including extensive relics of the mining industry and a former gunpowder factory in the well-wooded Luxulyan Valley. There is only a single Band B – between 26-60m in height to blade tip – present at Tortoiseshell Barn.

3.44 The *St Austell Bay and Luxulyan Valley (CCA30)* partly contains the Helman Tor and Luxulyan Valley AGLV, a World Heritage Site, Tregrehan Registered Park and Garden and Conservation Areas at St Austell and Charlestown, as well as the coastal fringes of the National Landscape.

3.45 The character of the *St Austell Bay and Luxulyan Valley (CCA30)* has been significantly altered over time and its current condition is mixed. The western area is highly developed with urban and suburban development, holiday facilities and recreational/amenity areas making a major impact as opposed to the eastern side of the bay where development has not been allowed to despoil the natural beauty. As a result, it has a **medium-high** sensitivity, including **high** sensitivity within the nationally designated landscapes.

3.46 To the south of the site, extending to the southern fringes of the study area is the *Gerrans, Veryan and Mevagissey Bays (CCA22)*, which also includes the National Landscape and the Upper Fal Valley AGLV, as well as Pentewan Conservation Area and Heligan Registered Park and Garden. **Viewpoints 13 and 15 (Figures 24 and 26)** illustrates the landscape of the *Gerrans, Veryan and Mevagissey Bays (CCA22).*

3.47 The *Gerrans, Veryan and Mevagissey Bays (CCA22)* is comprised of three large and sweeping coastal bays, rocky shores, sandy beaches and small coves. The coastal strip is dominated by scrub and bracken. Punctuating the bays are the distinctive promontory headlands of Nare Head, Dodman Point and Black Head. The plateau behind the coast is a medieval landscape of irregular mixed farmland, intersected by stream valleys that are often wooded. Most fields are bounded slate Cornish hedges. Parkland gives the area a domesticated feel. Settlement is sparsely distributed across the area and often of medieval origin with coastal villages tucked into the sheltered mouths of steep-sided stream valleys. The area has been heavily influenced by tourism.

3.48 Within the *Gerrans, Veryan and Mevagissey Bays (CCA22)*, there is a scattering of operational single and small-clusters of wind turbines (outside the National Landscape) varying from Band B to Band D, including the two-turbine 110m wind energy development at Garlenick Estate.

3.49 The agricultural pattern of mixed farming of the *Gerrans, Veryan and Mevagissey Bays (CCA22)* is largely intact and in reasonable condition, although is being affected by the intensification of agriculture in some places. This is manifested in large sprawling agricultural buildings and over-intensive hedge maintenance leading to degradation of the Cornish hedges and the use of post and wire fencing, often associated with horsiculture or arable conversion. In places, the estate style of management and planting has resulted in the replacement of traditional field boundaries with fencing. The coastal strip is in poor condition due to a lack of grazing to manage the coastal heath or coastal field pattern. There has been local change from farmland or parkland to amenity uses such as caravan sites, with consequent loss of character. Woodlands in this area are largely unmanaged due to their situation in the steep sided stream valleys and grazing of these woodlands may be a problem. Conversely, woodlands in the parklands tend to be very highly

managed. The main transport corridors interrupt tranquillity considerably in this character area, particularly in the summer months when traffic is heavy and the smaller lanes of the Roseland groan under the pressure. Where roads have been improved, Cornish hedges have often been rebuilt with non-vernacular stone slate and there has been gradual urbanisation of the area resulting from transport associated infrastructure such as metal bus stops, a proliferation of signage, particularly around villages, hard kerbing of verges and road paint. The traditional fingerposts are almost all in degraded to poor condition with peeling paint and rust. Some non-vernacular rural housing development away from village cores, along linear transport routes, has resulted in increased urbanisation, erosion of rural character and the loss of tranquillity. The character of some villages, particularly those on the coast has been weakened by tourist development, which although usually small in scale, is having an incremental impact. This character area has a strong visual relationship with its neighbours. The views of the spread of St Austell and china clay area, which do not share common characteristics, erode the tranquillity of this area. As a result, it has a **medium** sensitivity, increasing to **medium-high** sensitivity within the AGLV and **high** sensitivity within the National Landscape. **High** sensitivity is defined in Table 1 of this LVIA as "*distinctive landscape elements and/or character. Includes areas with a very strong positive character with valued features that combine to give an experience of unity, richness and harmony. Landscapes in excellent/very good condition that are considered to be of particular importance to conserve. No detractors present. Likely to be nationally designated, such as National Landscapes and could include very highly valued landscapes of strong scenic quality and rarity on a national/international scale (National Landscapes)*."

3.50 To the south-west of the site, extending to the south-western fringes of the study area is the *Fal Valley (CCA21)*, which is also partly within the Upper Fal Valley AGLV and includes the Grampound Conservation Area.

3.51 The *Fal Valley (CCA21)* is focused on the deeply incised route of the Fal Valley and its tributaries which cut through an undulating plateau landscape. The area has a working agricultural character with medieval field patterns supporting mixed agriculture and bound by Cornish hedges. There is only one single Band B operational wind turbine present at Bartiliver Farm. Woodland is expansive in the valleys and includes large swathes of Ancient Woodland. The historic significance of this landscape is echoed in the remains of settlements of prehistoric and Iron Age origin. There are extensive parkland estates that give localised areas an ornamental and managed character, contrasting with the wild-feeling open estuary. The area is sparsely populated, with the main settlements being medieval in origin and partially included within Conservation Areas. The landscape is notably tranquil and peaceful, especially in the south, with scenic views channelled along the broad valley floors and across the valleys from the upper valley slopes. As a result, it has a **medium-high** sensitivity.

3.52 To the south-west of the site, on the south-western fringes of the study area, is the *Truro and Tresillian Valleys (CCA20)*.

3.53 The *Truro and Tresillian Valleys (CCA20)* is a landscape of contrasts centred on Cornwall's only city, Truro, which is situated within a bowl landform. The city is surrounded by a landscape of rural land and scenic valleys and the area maintains a strong association with the estuarine ria. Away from Truro, there is a strong working agricultural character, with the rolling fields to the north-east of Truro feeling particularly remote. The majority of field patterns are medieval in origin, marked by Cornish hedges with some grown-out hedges providing important links between valley woodlands (including some plantations). The estuarine ria supports many important habitats and is partially SAC designated. Many of the settlements within this landscape are of medieval

origin often located at the head of the historically navigable section of the rivers. Truro is situated at the lowest crossing point for land transport. The cultural significance of this landscape is reflected in the presence of settlements with Conservation Areas, Registered Parks and Gardens and the character area is partially included within the Cornwall and West Devon Mining Landscape WHS. This is a scenic landscape with long-distance views possible across the valleys from more elevated areas and across the broad, open ria to other character areas. Away from Truro much of the landscape is notably tranquil. As a result, it has a **medium-high** sensitivity.

3.54 To the south, south-west and west of the site, extending to the western fringes of the study area is the *Upper Fal Valleys (CCA19)*, which is also partly within the Arrallas Farm/St Erme River Valleys AGLV.

3.55 The *Upper Fal Valleys (CCA19)* is an area of gently undulating plateau farmland dissected by small stream valleys which make up the tributaries which drain south before converging at the Fal estuary. The landscape has an intact agricultural character, with mixed farmland within medieval fields divided by Cornish hedges. Archaeological features including prehistoric remains are occasional features within the farmed landscape. The landscape is sparsely settled, with scattered farms, hamlets and the small settlements served by a network of rural lanes and major routes including the A30, A39 and A3058. Tracts of woodland are located along streams and are often locally designated for their wildlife value. There are also some significant areas of plantation woodland. Tourism is less of an influence on the landscape compared with some areas of Cornwall. A strong rural character with high levels of tranquillity can be experienced although this is impacted in places by renewable energy schemes, major roads and overhead lines/pylons. There are scattered single and small-clusters of mainly Band B wind turbines between 26-60m in height to blade tip, although there is a two-turbine Band C development at Goonabarn Farm, at 77m in height to blade tip. As a result, it has a **medium** sensitivity, increasing to **medium-high** sensitivity within the AGLV.

3.56 To the west, north-west and north of the site, extending to the fringes of the study area is the *St Newlyn East to St Columb Major (CCA25)*. **Viewpoint 14 (Figure 25)** illustrates the landscape of the *St Newlyn East to St Columb Major (CCA25).*

3.57 The *St Newlyn East to St Columb Major (CCA25)* comprises the gently undulating agricultural landscape extending east to west with extensive views out to sea from the higher ground. The area is incised by shallow valleys on the margins. Field patterns are predominantly medieval but with strongly rectilinear post-medieval enclosure of former rough ground in some areas, particularly to the south. Land use is a mix of pasture and arable. Cornish hedgerows are prevalent but mature trees are fewer on higher ground due to exposure and close flailing of hedges. There is some woodland, mostly wet woodland, in the valleys with small areas of wetlands with fens. Settlement is generally small nucleated villages associated with the communications network and dispersed farm settlements. Tourism development, including caravan sites, is prevalent within the northern part of the CCA nearest the coast. There are scattered single wind energy schemes present, largely Band B wind turbines between 26-60m in height to blade tip, although there is a Band C development at Ennis Barton Farm, at 77m in height to blade tip. As a result, it has a **medium** sensitivity.

CC RELS Assessment

3.58 Within the RELS Assessment, the *St Austell or Hensbarrow China Clay Area (RLU13)* has been identified as having a '**moderate-high**' overall landscape sensitivity for Band D wind energy development (between 100m-150m in height to blade tip).

3.59 The proposed development, at 135m in height to blade tip, is a Band D wind energy development.

3.60 'Moderate-high' sensitivity is defined as *"key characteristics and qualities of the landscape are vulnerable to change from wind… energy development. There may be some limited opportunity to accommodate wind turbines… without significantly changing landscape character. Great care would be needed in siting and design."*

3.61 The overall landscape sensitivity to wind energy development within the *St Austell or Hensbarrow China Clay Area (RLU13)* has been defined as:

"*Although the large-scale industrial landscape with substantial human influence and existing Band C turbines [61-99m in height to blade tip] could indicate a lower sensitivity to development, the prominent and distinctive skyline (a cultural heritage feature in its own right) heightens levels of sensitivity to wind energy development. The visually prominent natural granite outcrops of Roche and St Dennis would be highly sensitive to wind energy development. Areas with regular field patterns on higher ground would be less sensitive*."

3.62 The operational wind energy developments within the *St Austell or Hensbarrow China Clay Area (RLU13),* comprise of single, largely Band C (61-99m in height to blade tip) wind turbines, including Higher Goonamarth Farm, Blackpool Quarry, Greensplat, Gunheath Quarry and Aggregate Industries as well as smaller Band B – between 26-60m in height to blade tip – the single turbines at Henavisten farm and Land at Menna Farm and a single Band A – between 18-25m in height to blade tip – operational wind turbine at Mount Stamper.

3.63 In addition, "*given the highly industrial character and large-scale of this landscape, there is an opportunity to accommodate turbines up to Band C, and potentially into the lower end of Band D. However, the RLU should remain a landscape with occasional wind energy developments to preserve the landmark features within it (and its distinctive skyline profile visible in long views), and to limit cumulative landscape effects. Careful consideration could be made to replace single Band C turbines with larger models, potentially up to the lower end of Band D, and similarly in terms of replacing Band B turbines with Band C models. In some cases (where technically feasible and in line with the landscape guidance) there may also be opportunities to add two more turbines to single Band B or C schemes to create small wind farm developments."*

3.64 The relevant strategic guidance for wind energy development within the *St Austell or Hensbarrow China Clay Area (RLU13)* include:

- Ensure that any new Band C or D turbines are sited well away from any Band A or B turbines, so that the different size classes are not seen together;
- Ensure that any new developments are similar in terms of siting, layout and relationship to key landscape characteristics, so as to present a simple image that relates clearly to landscape character;
- Avoid close juxtaposition of different turbine designs and heights within the same banding, aiming instead for a consistent design and height in any given area;
- Locate turbines within the mining landscapes in the centre of the RLU (away from the outward presenting edge of the china clay area) and in the areas of more regular field patterns which tend to occur on higher ground away from the river valleys and older settlements;

- Site turbines away from the natural granite outcrops of Roche and St Dennis and the outer boundary tips and landforms of the area so that these are retained as distinctive features on the skyline;
- Avoid locating the largest scale wind energy development in areas of very small, ancient fields (especially in the east at Stenalees and Penwithick, in the north around St Dennis, and in the south at Goverseth and Carpalla);
- Ensure wind energy development does not dominate, or prevent the understanding and appreciation of, historic landmarks on the skyline, including St Stephen's Beacon, St Dennis church and the 15th century chapel on the top of Roche Rock;
- Consider how turbines fit with existing skyline features when siting and designing wind development – turbines may be better sited on the top of flat tips than close to distinctive conical forms, and away from the outward presenting edge of the china clay area; and
- Ensure wind energy development does not dominate the huge pale spoil heaps, extensive turquoise lagoons and settling tanks, Trenance viaduct on the north edge of St Austell, Gover Viaduct, the Norman towers of both St Dennis and Roche, Roche Rock and Hensbarrow Beacon as distinctive features of the landscape.

St Stephen in Brannel Parish Council Neighbourhood Development Plan (NDP)

3.65 The proposed development is within the 'green' area of the St Stephen in Brannel Parish Council NDP[24], as identified on Map 3 'Wind Energy Development Areas of Search.'

3.66 The site is therefore considered, within the NDP, as suitable for wind energy schemes up to Band D – 100m-150m in height to blade tip and for 'small to large clusters' of wind turbines.

3.67 The proposed development, at 135m in height to blade tip, is a Band D wind energy development.

3.68 The NDP also states in Policy NE6 that any proposed wind energy development "*would not dominate, or prevent the understanding and appreciation of the distinctive historic landmarks, heritage assets, or the views of the china clay tips, lagoons and landforms associated with the Hensbarrow mining area, or the rising ground above the settlements, which mark the Cornish Distinctiveness of the area.*"

Visual Amenity Receptors and their Views

3.69 An overview of the visual amenity receptors and their views within the study area is described below. The location of principal visual amenity receptors is illustrated in **Figure 7** and viewpoint locations shown on **Figures 10 and 11**.

Settlements – Towns, Villages and Hamlets

3.70 There are a number of **high** sensitivity towns, villages and hamlets scattered throughout the study area, generally situated along the major road corridors or associated with the quarry workings, including the large coastal town of St Austell approximately 4km to the

[24] St Stephen in Brannel Parish Council, St Stephen in Brannel Parish Neighbourhood Development Plan, 2023-2030, Referendum Version, June 2024

south-east of the site at its closest point, extending to the boundary with St Austell Bay. Largely sloping down towards the coastal fringes and enclosed by surrounding development, it is only from the fringes of St Austell, that more expansive views inland are possible. Views over the adjacent undulating farmland, mineral workings and scattered wind energy schemes are possible from the fringes of the settlement.

3.71 Nanpean occurs approximately 1km to the west of the site at its closest point. Stretched out along a network of minor roads, broadly extending from north to south, views across the nearby sloping fields, including towards the rising tips, are possible from open fringes of the settlement. As illustrated in **Viewpoint 5 (Figures 16A-16D)**, from a public right of way and **Viewpoint 10 (Figures 21A-21D)** from a minor road, as they emerge from the enclosure of Nanpean, views are possible across the surrounding well-vegetated sloping fields, towards the rising tips. Selected close proximity views towards the site from the settlement fringes, although often limited by variations in the immediate sloping landform as well as screening by development and vegetation, are possible.

3.72 Views are also possible from the fringes of the nearby settlement of Foxhole/Goverseth to the south-west and Whitemoor to the north-west. Set on the lower slopes, amidst the undulating landscape and heavily influenced by surrounding industrial and mineral workings, wider views from these settlement fringes are possible, although often limited by intervening development, vegetation and variations in landform. As illustrated in **Viewpoint 9 (Figures 20A-20C)**, from the fringes of a new housing development on the fringes of Foxhole/Goverseth, views are possible across the lower well-vegetated slopes, towards the rising tips.

3.73 The contained Greystones Caravan Park also occurs approximately 1.1km to the south. Set amidst a gently undulating landscape, wider views to the north towards the rising tips are possible although often restricted by intervening wider sloping landform and mature vegetation, in particular enclosing the settlement fringes.

3.74 Other settlements further afield, including St Stephen approximately 3.6km to the south-west and St Dennis approximately 2.4km to the north-west are focussed around a church, situated on elevated ground within the settlements. As illustrated in **Viewpoint 1 (Figures 12A-12D)**, from the elevated St Dennis Church and **Viewpoint 18 (Figures 29A-29D)** from St Stephen Churchyard, wider views are possible from these settlements across the surrounding settlement and farmland, including towards the conical and distinctive distant tips.

3.75 Roche is also situated approximately 3.4km to the north and views from the settlement fringes, as illustrated in **Viewpoint 2 (Figures 13A-13D)** from Roche Rock, are dominated by the surrounding tips, including the numerous lines of pylons that cross the landscape.

Scattered Residential Properties

3.76 Individual **high** sensitivity residential properties and farms are scattered within the undulating landscape of the study area, often stretched out along the network of minor roads, or focussed along junctions, becoming sparser within the industrial landscape, including in close proximity to the site.

3.77 Most of these houses and farms have restricted views into the surrounding landscape from a combination of vegetation enclosing many properties, screening provided by adjacent development, subtle variations in landform and by the numerous lines of mature

vegetation, including hedgerows, linear tree belts, mature trees, small copses and woodlands, in the wider landscape.

3.78 There are however a number of residential properties within close proximity, including stretched out along Old Pound Road from the south-west to the south of the site. Old Pound Road connects with Goverseth Hill to the south-west, passing to the south of the site, before connecting with the permissive quarry road to the south, at the junction with Water Hill minor road.

3.79 The housing lined Old Pound Road slopes up gently from the south-west to the south, with the well-vegetated slopes associated with the adjacent tip rising up immediately to the north of the houses.

3.80 As illustrated in **Viewpoint 6 (Figures 17A-17C)** to the south and **Viewpoint 8 (Figures 19A-19C)** to the south-west, from gaps in the vegetative enclosure along Old Pound Road, views towards the adjacent rising tips, including towards the site, from the houses are possible, although largely limited by intervening vegetation, development and variations in landform.

National Trails

3.81 The **high** sensitivity South West Coast Path National Trail crosses the study area to the south-east approximately 7.7km to the south-east of the site at its closest point.

3.82 Following the dramatic coast, as well as skirting the settlement fringes of St Austell, views are focussed across the coast and coastal fringes, with views inland largely restricted by the intervening undulating and well-vegetated agricultural landscape.

Recreational Routes

3.83 The **high** sensitivity Saints Way recreational route crosses the study area from the north-east to the east, approximately 7.7km to the east of the site at its closest point.

3.84 Crossing the undulating and well-vegetated landscape, variable views are possible, including of the scattered generally single and small clusters of wind energy schemes in the surrounding landscape.

National Cycle Routes

3.85 Numerous **high** sensitivity National Cycle Routes (NCRs) cross the study area, generally passing from the north-west, to the north-east, east, south-east and south, with many of the routes connecting at St Austell to the south-east.

3.86 The closest, NCR2, the Clay Trail, passes approximately 3.1km to the east of the site at its closest point, connecting with the Wheal Martyn Museum and Country Park.

3.87 Largely following minor roads as well as purpose-built routes along former railway lines associated with the mining landscape, views from the NCRs are largely restricted by the immediate enclosure by vegetation, including Cornish hedges as well as the wider screening by development and undulating landform including the numerous and dramatic tips surrounding the site and within the wider landscape. As illustrated in **Viewpoint 12 (Figures 23A-23C)** from NCR305 along a minor road crossing Goss Moor to the north, even from this open location, although views over the adjacent moorland and farmland

are possible, long distance views are dominated and restricted by the distant tips on the horizon.

3.88 Glimpsed views however into the surrounding varied landscape, including of the scattered single and small clusters of wind energy schemes are possible from gaps in the enclosure, or from selected elevated locations, such as bridges.

Places of Interest (including Country Parks)

3.89 The **high** sensitivity and renowned Eden Project occurs approximately 7.2km to the east of the site at its closest point, the Lost Gardens of Heligan, approximately 9.6km to the south.

3.90 The **high** sensitivity Wheal Martyn Museum and Country Park also occurs approximately 2.8km to the east. Focussed around a museum and visitor centre, there are also walks surrounding the centre, generally through woodlands scattered with remnants of the mining industry. There are also 'look-out' points, focusing on a working quarry, where views into the wider mining landscape, scattered with operational wind energy schemes, are also possible.

Local Public Rights of Way, Bridleways and Cycleways

3.91 There are **medium-high** and **high** (within the National Landscape) sensitivity scattered public rights of way, bridleways and cycleways present within the study area.

3.92 The closest public rights of way to the site, branch out from Nanpean to the west, from Foxhole/Goverseth to the south-west and Greystones Caravan Park to the south, although the closest public right of ways, including 422/79/4, extending south from Old Pound and 422/83/1, extending west from Water Hill minor road appear to be not accessible and could not be found during the site survey.

3.93 As illustrated in **Viewpoint 5 (Figures 16A-16D)**, as the public right of way emerges from the enclosure of Nanpean, views are possible across the surrounding well-vegetated sloping fields, towards the rising tips. Selected close proximity views are possible from the nearby public rights of way, although often limited by variations in the immediate sloping landform as well as screening by development and vegetation.

3.94 Further afield, wider views are possible from the network of public rights of way across the diverse farming and industrial influenced landscape, although often limited by subtle variations in landform and mature vegetation in the immediate and wider landscape. Scattered operational wind energy schemes are also often perceived.

3.95 As illustrated in **Viewpoint 16 (Figures 27A-27D)**, from a gap in enclosure along the public right of way at Innis Downs, views are possible across the immediate fields, towards the distant tips on the horizon. Scattered operational wind energy schemes are nestled within the view.

3.96 Even from a public right of way on the fringes of the National Landscape to the south-east, as illustrated in **Viewpoint 15 (Figures 26A-26D)**, it is only from selected open and elevated locations that expansive and distant views are possible, including of the scattered operational wind energy schemes.

Open Access Areas

3.97 There are scattered **medium-high** sensitivity open access areas within the study area.

3.98 Largely focussed on open and elevated locations within the wider undulating and varied landscape, selected wider views are possible across the rolling landform including towards the distinctive tips and quarries, punctuated by scattered single and small clusters of operational wind energy schemes.

3.99 As illustrated in **Viewpoint 4 (Figures 15A-15D)**, expansive views are possible from the open access area to the north-east adjacent to Hensbarrow Beacon across the landscape of rough grassland, dominated by large tips and quarry workings and punctuated by lines of pylons and scattered wind energy schemes.

3.100 Expansive views are also possible from St Stephen's Beacon open access area to the south-west. As illustrated in **Viewpoint 3 (Figures 14A-14D)**, from this elevated and open location, views are possible across the adjacent settlement of Foxhole/Goverseth, spread out along the slopes, towards the distant tips.

3.101 From the open access areas further afield, as illustrated in **Viewpoint 2 (Figures 13A-13D)** from Roche Rock to the north-east and **Viewpoint 12 (Figures 23A-23C)** from Goss Moor to the north, views are possible across the intervening landscape, towards the distant tips, which form the horizon and restrict wider views, including towards other operational wind energy schemes.

3.102 However, from the more distant and elevated open access areas, towards the fringes of the study area, including from Castle-an-Dinas to the north-west, as illustrated in **Viewpoint 14 (Figures 25A-25D)** and from Helman Tor to the north-east, as illustrated in **Viewpoint 17 (Figures 28A-28D)**, wider views are possible. From these elevated and open locations, expansive views are possible across the lower varied undulating farmland and wooded landscape, including towards the distant tips on the horizon, punctuated by scattered operational wind energy schemes. Although distantly perceived, wind energy schemes, however, do not dominate or largely influence the expansive view.

Major Roads

3.103 Numerous **low** sensitivity major roads pass through the study area, the closest, the A3058, crossing the study area from the west to the east, passing through St Austell to the south-east, approximately 2.9km to the south of the site at its closest point.

3.104 Largely enclosed by development and mature vegetation, it is only from a few selected open locations, as the A3058 emerges from the enclosure of St Austell, that more expansive views across the wider industrial and farming landscape, scattered with operational wind energy schemes, are possible.

3.105 The A391 also crosses the study area from the north-east, where it connects with the A30 at a junction, to the south-east passing through St Austell, approximately 3.5km to the east of the site at its closest point. Largely enclosed by development and mature vegetation, it is only from a few selected open locations, that more expansive views across the wider industrial and farming landscape, scattered with operational wind energy schemes, are possible.

3.106 Further afield, the major roads are largely enclosed by rolling landform, adjacent development and surrounding mature vegetation. Although views of the scattered

operational wind energy schemes are possible from the network of major roads, they do not dominate.

Minor Roads

3.107 Numerous **medium-low** sensitivity minor roads cross the study area and are largely enclosed by mature linear tree belts, hedgerows and hedgebanks. It is only from selected high points, or gaps in the enclosure, that views into the surrounding farmland and industrial influenced landscape, including scattered operational wind energy schemes, are possible.

3.108 Old Pound Road connects with Goverseth Hill to the south-west, passing to the south of the site, before connecting with the permissive quarry road to the south, at the junction with Water Hill.

3.109 Old Pound Road is intermittently lined by houses and is bordered by the vegetation covered steep slopes of the adjacent tip as it rises dramatically towards the site. As illustrated in **Viewpoint 6 (Figures 17A-17C)** and **Viewpoint 8 (Figures 19A-19C)**, from gaps in the vegetative enclosure along the minor road, views towards the adjacent rising tips, including towards the site, are possible, although often limited by intervening vegetation, development and subtle variations in landform.

3.110 As illustrated in **Viewpoint 7 (Figures 18A-18C)**, however, as the Water Hill minor road moves away from the variable screening along Old Pound Road, more expansive views are possible from gaps in enclosure along the minor road, across the intervening vegetation and development, towards the rising tips, including towards the site.

3.111 Variations in the dramatically sloping landform associated with the industrial landscape helps to limit wider views towards the site from the permissive quarry road as it heads to the east, although views towards the nearby operational single wind turbines on the surrounding slopes is possible from gaps in enclosure along the minor road.

3.112 The permissive quarry road connects with Greensplat Road to the south-east and many views from Greensplat Road are restricted by intervening hedgebanks and linear vegetation. As illustrated in **Viewpoint 11 (Figures 22A-22D)**, even from an open and elevated location along Greensplat Road to the south-east, the intervening tips help to limit wider views, including towards the site, although the operational single wind turbine at Higher Goonamarth Farm is perceived.

3.113 Views are also possible in close proximity from selected open locations along the surrounding network of minor roads, particularly as they emerge from the enclosure of the nearby settlements. As illustrated in **Viewpoint 10 (Figures 21A-21D)**, from Currian Hill minor road, on the fringes of Nanpean, expansive views are possible across the immediate sloping fields, towards the dramatically rising tips.

3.114 Further afield, along the network of minor roads that cross the study area, it is only from selected open and/or elevated locations, that more expansive views over the surrounding undulating agricultural and wooded landscape, punctuated with scattered wind energy schemes, including the dramatic distant tips, are possible. As illustrated in **Viewpoint 12 (Figures 23A-23C)** from a minor road crossing Goss Moor to the north and **Viewpoint 13 (Figures 24A-24D)**, from Chapel Hill minor road, near Sticker, to the south, selected views over the surrounding landscape is possible and although distantly perceived, wind energy schemes, do not dominate or largely influence the expansive view.

Railway Lines

3.115 A number of **low** sensitivity railway lines cross the study area, connecting and passing through St Austell to the south-east, with views generally restricted by a combination of adjacent development, variations in landform and mature vegetation.

4. Design and Mitigation Measures

4.1 Mitigation measures to help minimise the potential impacts and effects have been incorporated into the distinct phases of the proposed development, including during the design process (designed in mitigation) and 'additional' landscape measures, focussed on enhancing biodiversity, and planning for construction, operation and decommissioning.

Designed in Mitigation

4.2 A balance between technical and environmental constraints, effectiveness and landscape and visual impacts were the key factors in determining the selection and siting of the proposed wind turbines for the site.

4.3 In addition, the landscape guidance for the *St Austell or Hensbarrow China Clay Area (CCA27)*, in which the proposed development will be situated, has been referenced to aid in the overall design. The relevant guidance to protect, conserve and manage landscape character for the *St Austell or Hensbarrow China Clay Area (CCA27)* includes:

- Identify and conserve important historic and ecological features while achieving balance with the needs of current industry;
- Conserve the small-scale mining settlements around St Dennis, including the remaining medieval strip-field patterns;
- Ensure the distinctive conical and flat-topped spoil heaps, turquoise-coloured settling pools, and other industrial landscape features remain prominent as distinctive features of the landscape;
- Conserve and protect important historic features including the Bronze Age barrows, medieval field patterns, and extensive mining relics, providing interpretation features where appropriate;
- Protecting historic features which act as local landmarks (such as Roche Rock) and their settings from adverse development;
- Maintain and restore Cornish hedges, stone walls, hedgerows and other boundary features, while respecting the pattern of ancient field systems and reflecting local variations in style, using locally sourced granite where possible;
- Conserve and appropriately manage the important remnant heathland habitats;
- Manage the industrial landscape in line with the St Austell China Clay Restoration and Tipping Strategy SPD[25], updating it where appropriate;
- Ensure management plans are in operation for the maintenance of restored land, including heathland and woodland;

[25] Cornwall Council, St Austell China Clay Restoration and Tipping Supplementary Planning Document (SPD), March 2022

- Prepare a strategy for controlling the spread of invasive plant species such as Rhododendron and Japanese Knotweed;
- Promote the use of local stone (including in new developments);
- Retain the open views out of the landscape as well as views of prominent features associated with the mining industry;
- Seek opportunities to create green infrastructure links to contribute to nature recovery networks and provide sustainable opportunities for travel, access and recreation;
- Create opportunities to integrate former workings within the wider landscape by linking new landscape proposals with existing hedgerow patterns, woodland and copse planting using appropriate native species;
- Continue habitat restoration projects, ensuring newly created habitats use native species, are appropriately located, and are connected to nearby habitats through ecological corridors including hedges;
- The drive for new tree planting (e.g. Forest of Cornwall, England Tree Action Plan) provides opportunities to strengthen and connect woodland habitats, but must respect landscape character and be sensitive to the local ecological conditions;
- Restore despoiled land in an appropriate manner so that the time depth of the land use can be properly appreciated; and
- Ensure plans for new renewable energy developments consider landscape and visual effects (including cumulative effects), especially on south-facing slopes and areas of high ground which are favourable for solar and wind development. Site in appropriate locations and mitigate impacts through careful design.

Mitigation through the selection of the proposed wind turbines

4.4 The size and model of the proposed wind turbines were selected to provide a substantial amount of electricity generation.

4.5 The proposed wind turbines will also be the same size as the nearby consented single turbines at Burngullow, East Karslake, Longstones, Higher Goonamarth 2 and Wheal Martyn.

Mitigation through siting of the proposed wind turbines

4.6 The proposed wind turbines will be sited within a wider industrial working landscape already influenced by other operational, consented and potentially pending planning wind turbine developments. The proposed wind turbines would appear as additional vertical moving elements within a landscape already influenced by similar sized wind energy schemes.

4.7 The proposed wind turbines will be positioned away from high sensitivity receptors, such as public rights of way, residential properties and settlements.

4.8 The siting of the proposed wind turbines have also been designed to have minimal effects on any landscape elements. Existing tracks and access points will be used, although there will be loss of grassland for the new access tracks and the proposed wind turbines foundation. As a result, there will be limited removal of vegetation, with associated **low impacts** and **minor adverse** effects on landscape elements. The access tracks will also be retained for the operation of the proposed development.

‘Additional’ Landscape Mitigation Measures

4.9 To reinforce the vegetation pattern surrounding the proposed development, as well as provide nature conservation and biodiversity enhancements, additional landscape mitigation measures have been proposed.

4.10 The additional landscape mitigation measures have been informed through liaison and agreement with the ecologist and with reference to the Ecological Impact Assessment[26], BNG Assessment[27] and the Green Infrastructure Statement[28] that accompanies this planning application.

4.11 In addition, in determining the additional landscape (and ecology) mitigation measures, reference has also been made to the CC[29] China Clay Restoration and Tipping SPD.

4.12 The ‘additional’ landscape (and ecology) mitigation measures include:

- New neutral habitat grassland habitat in suitable locations, including within existing modified grassland; and
- New native mixed scrub will be planted on areas of existing bare ground.

Construction

4.13 Mitigation measures, relevant to the LVIA during the construction period, include:

- Vegetation loss, including hedgerows, tree and shrub removal will be kept to a minimum; and
- All temporarily disturbed and excavated areas will be reinstated following the completion of construction activities.

Operation

4.14 Given the scale of the proposed wind turbines, there are few realistic mitigation measures that could be introduced, which would help limit the visibility of the proposed development within the wider landscape during the operational period. New tall structures with moving vertical elements will be introduced which, due to its size and scale, will be perceived over a relatively wide area, largely in combination with nearby operational, consented and pending planning wind energy schemes.

4.15 The Dubbers Dam Woodland Project, an external tree-planting initiative located within the vicinity of the proposed wind turbines, will significantly increase canopy cover in the local area. Although this scheme is not commissioned by the Applicant, it will deliver considerable additional tree planting near the development site

[26] Western Ecology, Ecological Impact Assessment, November 2025

[27] Western Ecology, Biodiversity Net Gain Strategy, November 2025

[28] CleanEarth, Green Infrastructure Statement

[29] Cornwall Council, St Austell China Clay Restoration and Tipping Supplementary Planning Document (SPD), March 2022

4.16 However, it should be acknowledged that the operational effects of the proposed development will be temporary, given the 35 year operation period.

Decommissioning

4.17 The proposed development will be operational for 35 years, at the end of which it will be dismantled and removed and the site reinstated to previous conditions.

4.18 Mitigation measures, relevant to the LVIA during the decommissioning period will be similar to the construction period and will include:

- Vegetation loss, including hedgerows, tree and shrub removal will be kept to a minimum; and
- The decommissioning compound and all disturbed and excavated areas will be reinstated following the completion of decommissioning activities. The concrete foundations and underground cabling will be removed or left in-situ, covered to make up levels and spread with recovered subsoil and topsoil, appropriate to re-establish previous conditions.

5. Construction and Decommissioning Impacts and Effects

5.1 Construction activities that have the potential to affect the landscape character and views from visual amenity receptors include:

- Deliveries to site and vehicle movements on and off-site;
- Construction of short stretches of new access roads, connecting the existing tracks to the base of the proposed wind turbines;
- Presence of crane (maximum of 6 days – in good weather conditions) to erect the proposed wind turbines;
- Erection of proposed wind turbine towers, installation of turbine nacelle and blades; and
- Reinstatement works to areas disturbed by construction activities.

5.2 Decommissioning activities that have the potential to affect the landscape character and views from visual amenity receptors include:

- Presence of crane (maximum of 6 days – in good weather conditions) to dismantle and remove the proposed wind turbines; and
- Dismantling and removal of proposed wind turbines and associated infrastructure.

5.3 From the description of the construction and decommissioning activities, as outlined above, any effects on landscape character and visual amenity receptors and their views during the construction and decommissioning phases will be very temporary in duration.

5.4 Other short-term impacts and effects will be associated with crane movements, only present on site for a likely period of 6 days.

5.5 Therefore, the short-term, reversible and temporary nature of the construction and decommissioning activities on both landscape character and visual amenity receptors and

their views will ensure that the impacts will be **low** and the effects will be **minor adverse**. The effects will be **not significant**.

6. Operational Impacts and Effects

Overview

6.1 Zones of Theoretical Visibility (ZTVs) have been generated calculated to a hub heights of 76.5m and blade tips of 135m covering the 20km radius study area (**Figures 8 and 9**) and the 10km radius study area (**Figures 10 and 11**).

6.2 The ZTVs are calculated using specialist software. Further details on the production of the ZTVs are found in **Appendix B**.

6.3 The ZTVs illustrate the areas of potential visibility of one or two of the proposed wind turbines, based on landform data only across the study area. The ZTVs do not take into account the screening effects from local features such as subtle variations in landform, vegetation cover or development. Therefore, the ZTVs represent the 'worst-case' scenario based on the maximum potential hub height and blade tip of the proposed wind turbines but are a starting point for assessing the operational impacts and effects of the proposed development on landscape character and visual amenity receptors and their views.

6.4 Within the 20km radius study area, as illustrated in **Figures 8 and 9**, the wider extent of potential visibility is broadly spread throughout the study area, with largely only selected high points with the potential to perceive the proposed development and barely any potential indirect influence on the Cornwall National Landscape.

6.5 Within the 20km radius study area, for the majority of the extent of potential visibility, both of the proposed wind turbines will have the potential to be perceived, although there are selected, and often substantial, but scattered, areas where only one of the proposed wind turbines will have the potential to be perceived.

6.6 Within the 20km radius study area, there is also a noticeable difference and extensive reduction in potential visibility of the proposed wind turbines when comparing hub height and blade tip extents.

6.7 Within the 10km study area, as illustrated in **Figures 10 and 11**, the extent of potential visibility is broadly spread throughout the study area, although the location of the proposed development in combination with the surrounding undulating landform, dominated by adjacent tips, ensures that the potential visibility of the proposed wind turbines will be relatively limited to the north-east, east and south-east.

6.8 As illustrated on the ZTVs, the main potential extent of visibility of the proposed wind turbines are within close proximity (within 2km radius), although this very quickly dissipates with distance, with wider visibility (beyond 5km) focussed on selected high points and ridges.

6.9 There will also be limited potential visibility from the fringes of St Austell to the south-east. The large expanses of urban areas, including intervening buildings and mature vegetation

that predominates, will help to restrict the potential visibility of the proposed development although these factors are not reflected in the ZTV analysis.

6.10 There will also be a substantial difference between the potential visibility between hub height and blade tip, as illustrated in the ZTVs. The difference between the predicted extent of visibility between the maximum blade tip and hub height ZTVs is particularly noticeable, where the potential extent of visibility is substantially reduced between the blade tip and hub height.

6.11 Although for the majority of the extent of the ZTVs, largely there will be the potential for two of the proposed wind turbines to be perceived, there are selected, and often substantial, but scattered, areas where only one of the proposed wind turbines will have the potential to be perceived.

Viewpoint Analysis

6.12 Eighteen viewpoints, their location illustrated in **Figures 10 and 11**, have been selected to help inform the LVIA and help determine and describe the magnitude of impact and level of effect, including the significance of effect, of the proposed development.

6.13 The viewpoints represent the most 'exposed' publicly accessible views of the proposed development, from the most 'sensitive' receptors, broadly surrounding the proposed wind turbines from all directions of view.

6.14 To illustrate the predicted views of the proposed wind turbines, photographic views, wireframes and photomontages have been produced for all of the viewpoints. The other wind energy schemes within the study area are also shown on all wireframe views.

6.15 Details of the preparation of the viewpoint graphics are included in **Appendix B**.

Operational Impacts and Effects on Landscape Character

Landscape Elements

6.16 The proposed wind turbines will have minimal effects on any landscape elements. There will be loss of rough grassland for the new access tracks and the proposed wind turbine foundations. There will be limited removal of vegetation, with associated **low impacts** and **minor adverse effects** on landscape elements. The effects will be **not significant.**

6.17 However, the proposed additional landscape mitigation measures, focussed on biodiversity enhancements, including new areas of grassland, as well as enhancement to existing grassland and new mixed native scrub, will more than compensate for this limited loss and over time will provide **low impacts** and **minor beneficial effects** to landscape elements. The effects will be **not significant.**

Landscape Relevant Designations

6.18 The proposed development will not directly affect any landscape relevant designations.

6.19 However, with reference to the ZTVs (**Figures 8-11**), there will be the potential for indirect impacts and effects on the setting of selected landscape relevant designations as a result of the operation of the proposed development, as follows:

- The **high** sensitivity Cornwall National Landscape occurs approximately 6.7km to the south-east of the proposed development at its closest point, extending to the south-eastern fringes of the 10km radius study area. The Cornwall National Landscape also extends over the wider 20km radius study area including to the north, north-east, east, south and south-west, largely focussed along the coastline but also extending across the distinctive upland landscape of Bodmin Moor to the north-east.

  Intermittently within the ZTVs, the proposed development has the potential to indirectly influence the setting of the "*landscape character and natural beauty of the AONB."*

  As illustrated in **Viewpoint 15 (Figures 26A-26D)**, from an open and elevated public right of way on the fringes of the National Landscape to the south-east, the proposed development has the potential to be perceived, just above the horizon.

  The proposed development will be selectively viewed, from open and elevated locations, from within the National Landscape, as additional vertical moving elements within the inland industrial influenced landscape. The proposed development will be perceived within a landscape already influenced by other nearby operational wind energy schemes. The proposed development will add another two vertical moving elements to the landscape, when perceived from selected open and elevated locations on the fringes of the National Landscape.

  The proposed development, although selectively perceived within the National Landscape will not however, as outlined within the LSA, affect the key landscape characteristics of Area 9: South Coast Central or the perception of "*the majestic scale of the cliffs, far reaching panoramic views from the rugged cliff tops, the wild character of the cliff tops, and the prominence and skyline of pre-historic features from the largest Bronze Age burial mound in Cornwall at Carne Beacon to the County's largest prehistoric enclosure at the Iron Age cliff castles at Dodman, and the narrow winding lanes with high hedges and blind corners*."

  At worst, the introduction of two additional moving and vertical elements on the setting of the **high** sensitivity National Landscape, the magnitude of impact will be **negligible**, the level of effect will be **minor-negligible adverse**. The effects will be **not significant.**

  However, for the vast majority of the National Landscape, including the wider National Landscape within the 20km radius study area, the proposed development will be difficult to perceive and will not influence the key landscape characteristics of the nationally recognised landscape. For the majority of the National Landscape, the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant.**

- The **high** sensitivity Cornwall and West Devon Mining Landscape WHS occurs approximately 6.7km to the east and south-east of the proposed development at its closest point, extending to the eastern fringes of the study area.

  Excluded from the ZTVs, there will be no potential influence on its setting as a result of the proposed development. With reference to CC Policy 24, the proposed development will not "*result in harm to the authenticity and integrity of the Outstanding Universal Value"* of the WHS.

  The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant.**

- The **medium-high** sensitivity AGLVs in the study area (including the candidate AGLVs) are intermittently within the ZTVs and will have the potential for their setting to be indirectly influenced by the proposed development.

Within the AGLVs, the potential influence of the proposed development on their setting will be largely restricted to selected high points and ridges within the predominantly undulating and well-vegetated landscapes of the AGLVs. Such limited influence of the proposed development will easily become 'lost' with distance and due to the screening by the undulating landform including tips and numerous woodlands and thick hedgerows that are characteristic of the intervening landscape.

As illustrated in **Viewpoint 17 (Figures 28A-28D)**, within the Helman Tor and Luxulyan Valley AGLV, approximately 7.4km to the east of the proposed development at its closest point, which extends to the eastern and north-eastern fringes of the study area, even from a high point adjacent to Helman Tor, the potential visibility of the proposed development will be extremely restricted. The proposed development, perceived barely above the distant horizon, will be difficult to 'pick out' within a landscape already indirectly influenced by scattered operational wind energy schemes.

In reality a combination of distance and screening by intervening landform, development and mature vegetation will ensure that any indirect influence on the setting of the AGLVs within the study area, as a result of the proposed development, will be very difficult to ascertain.

In summary, the proposed development although with the potential to be perceived (often, at worst, just blade tips only) from selected distant and high points within the AGLVs will not affect, with reference to CC Policy 23, "*the character and distinctive landscape qualities of such areas*." A combination of distance and intervening undulating and well-vegetated landform will ensure that even if distantly perceived, the proposed development will not influence or affect the special qualities and value of these locally recognised landscapes.

At worst, the magnitude of impact on these **medium-high** sensitivity landscapes will be **negligible**, the level of effect will be **negligible adverse.** The effects will be **not significant**.

Although in reality for the vast majority of the AGLVs, the proposed development will have no discernible influence on their setting and the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant.**

- The **high** sensitivity Trewithen Registered Park and Garden, approximately 7.6km to the south-east at its closest point, is excluded from the ZTV and will experience no potential influence on its setting as a result of the proposed development.

  Only the fringes of the **high** sensitivity Heligan Registered Park and Garden, approximately 9km to the south at its closets point, are within the ZTVs. However, a combination of distance and mature vegetation within and on the boundaries of the park and garden and within the wider undulating landscape will ensure there will be no indirect influence on its setting as a result of the proposed development.

  With reference to CC Policy 24, the proposed development will not adversely affect "*the design, character, appearance and historic significance of historic parks and gardens."*

  The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

- The **high** sensitivity Conservation Areas in the study area are excluded or largely excluded from the ZTVs with no potential indirect influence on their setting as a result of the proposed development.

  Even from the closest Conservation Area, St Austell, approximately 4.6km to the south-east, which is largely excluded from the ZTVs, the density and screening

provided by the surrounding development will ensure there will be no indirect influence on its setting as a result of the proposed development.

With reference to CC Policy 24, the proposed development will therefore not affect "*the special character and appearance of Conservation Areas..."*

The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

- No **high** sensitivity Ancient Woodlands will be directly affected by the proposed development. The closest, Bodinnick Wood, is approximately 4.7km to the south-west, within the Upper Fal Valley AGLV.

  With reference to CC Policy 23, the proposed development will not involve "*the loss or deterioration of Ancient Woodland*." The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

Landscape Character Areas

6.20 With reference to the ZTVs (**Figures 10-11**) and the viewpoints (**Figures 12-29**), the main impacts and effects as a result of the operation of the proposed development will be on the landscape character areas in close proximity.

6.21 The proposed development is within the **medium-low** sensitivity *St Austell or Hensbarrow China Clay Area (CCA27)* which extends in a broad band from east to west across the centre of the study area.

6.22 Already influenced by scattered single Band B (between 26-60m in height to blade tip), single Band C (between 61-99m in height to blade tip) and single Band A (between 18-25m in height to blade tip) operational wind energy schemes, the proposed development will introduce two additional moving vertical elements to this varied, dramatic landscape of china clay waste tips and areas of rough vegetation, characterised by open-pit mining.

6.23 As illustrated in **Viewpoint 3 (Figures 14A-14D), Viewpoint 5 (Figures 16A-16D), Viewpoint 9 (Figures 20A-20C)** and **Viewpoint 10 (Figures 21A-21D)**, within close proximity, the proposed development will be perceived as two prominent vertical elements, within the overall dramatic lunar landscape of huge, light coloured waste tips and settling ponds within a relic pastoral farming landscape.

6.24 Variable screening, even in close proximity, provided by intervening development, vegetation and variations in the industrial landform, as illustrated in **Viewpoint 4 (Figures 15A-15D), Viewpoint 6 (Figures 17A-17C), Viewpoint 7 (Figures 18A-18C), Viewpoint 8 (Figures 19A-19C), Viewpoint 11 (Figures 22A-22D) and Viewpoint 18 (Figures 29A-29D)**, will however help to reduce the influence of the proposed development, although still at least partially perceived.

6.25 The proposed development will be perceived within a wider industrial landscape where it will add vertical moving elements to a landscape already scattered with other operational wind turbines. The proposed development will be perceived as additional vertical elements within a landscape potentially in combination with and influenced by other wind energy schemes.

6.26 With distance, these subtle variations in the characteristic undulating landform, including screening provided by intervening tips and spoil heaps, will help to restrict the influence of the proposed development within the *St Austell or Hensbarrow China Clay Area (CCA27)*. Further afield, however, a combination of distance and screening provided by the

undulating landscape, including the tips and spoil heaps, will help to reduce the wider influence of the proposed development on the *St Austell or Hensbarrow China Clay Area (CCA27)*, as illustrated in **Viewpoint 1 (Figures 12A-12D)** and **Viewpoint 2 (Figures 13A-13D)**. Even if distantly perceived, the proposed development will be barely viewed as additional vertical elements within a working industrial landscape, already influenced by scattered wind energy schemes, its addition difficult to ascertain within the wider landscape of the *St Austell or Hensbarrow China Clay Area (CCA27)*.

6.27 In summary, the operation of the proposed development will introduce new vertical moving elements within the vibrant and dynamic industrial landscape of the *St Austell or Hensbarrow China Clay Area (CCA27)*. The proposed development will be perceived particularly within close proximity as prominent vertical elements, but set within an industrial changing landscape, reasonably tolerant of change, the proposed development will not feel 'out of place.'

6.28 At worst, the magnitude of impact on this **medium-low** sensitivity landscape will be **medium-high**, the level of effect will be **moderate-minor adverse**, although these effects will dramatically reduce with distance, as well as the screening provided by the surrounding dramatic industrial landscape. The effects will be **not significant**.

6.29 In addition, within the RELS Assessment, the *St Austell or Hensbarrow China Clay Area (RLU13)* has been identified as having a 'moderate-high' overall landscape sensitivity for Band D wind energy development (between 100-150m in height to blade tip).

6.30 Although the RELS Assessment recognises that the *St Austell or Hensbarrow China Clay Area (RLU13)* is vulnerable to change from wind energy development, it does acknowledge that there may be some limited opportunities to accommodate Band D wind turbines without significantly changing the landscape character when great care is taken in siting and design.

6.31 The RELS Assessment also states that the "*visually prominent natural granite outcrops of Roche and St Dennis would be highly sensitive to wind energy development*." As illustrated in **Viewpoint 2 (Figures 13A-13D)** from Roche Rock, the blade tips of the proposed development will be barely (if at all) perceived, just above the intervening tips, within a landscape punctuated by prominent line of pylons. As illustrated in **Viewpoint 1 (Figures 12A-12D)** from St Dennis Church, the proposed development has the potential to be perceived, behind and amidst the tips in the distance, although they do not dominate.

6.32 The proposed development also largely follows the relevant strategic guidance for wind energy development within the *St Austell or Hensbarrow China Clay Area (RLU13)* including:

- Ensuring that any new Band C or D turbines are sited well away from any Band A or B turbines, so that the different size classes are not seen together;
- Ensure that any new developments are similar in terms of siting, layout and relationship to key landscape characteristics, so as to present a simple image that relates clearly to landscape character;
- Avoid close juxtaposition of different turbine designs and heights within the same banding, aiming instead for a consistent design and height in any given area;
- Locate turbines within the mining landscapes in the centre of the RLU (away from the outward presenting edge of the clay area) and in the areas of more regular field

patterns which tend to occur on higher ground away from the river valleys and older settlements;

- Site turbines away from the natural granite outcrops of Roche and St Dennis and the outer boundary tips and landforms of the area so that these are retained as distinctive features on the skyline;
- Avoid locating the largest scale wind energy development in areas of very small, ancient fields (especially in the east at Stenalees and Penwithick, in the north around St Dennis, and in the south at Goverseth and Carpalla);
- Ensure wind energy development does not dominate, or prevent the understanding and appreciation of, historic landmarks on the skyline, including St Stephen's Beacon, St Dennis church and the 15th century chapel on the top of Roche Rock;
- Consider how turbines fit with existing skyline features when siting and designing wind development – turbines may be better sited on the top of flat tips than close to distinctive conical forms, and away from the outward presenting edge of the clay area; and
- Ensure wind energy development does not dominate the huge pale spoil heaps, extensive turquoise lagoons and settling tanks, Trenance viaduct on the north edge of St Austell, Gover Viaduct, the Norman towers of both St Dennis and Roche, Roche Rock and Hensbarrow Beacon as distinctive features of the landscape.

6.33 The proposed development is also within an area suitable for Band D wind energy schemes, as identified within the St Stephen in Brannel Parish Council NDP[30].

6.34 The proposed development follows the guidance as identified within the NDP in Policy NE6 which states that any proposed wind energy development "*would not dominate, or prevent the understanding and appreciation of the distinctive historic landmarks, heritage assets, or the views of the china clay tips, lagoons and landforms associated with the Hensbarrow mining area, or the rising ground above the settlements, which mark the Cornish Distinctiveness of the area*."

6.35 With reference to the ZTVs (**Figures 10-11**), the proposed development has the potential to indirectly influence the landscape character areas further afield.

6.36 To the north-west, north and north-east of the proposed development, extending in a broad band from east to west, including to the north-eastern fringes of the study area, is the **medium** sensitivity *Mid Cornwall Moors (CCA26)*.

6.37 As illustrated in **Viewpoints 12, 16 and 17 (Figures 23A-23C, 27A-27D and 28A-28D),** even from selected open locations within the open plateau landscape, comprising of moorland, rough grazing and pastoral farmland, largely only the blade tips of the proposed development will have the potential to be perceived. Influenced by scattered generally single and small-clusters of operational Band C and Band D wind energy schemes, the addition of the proposed development, barely perceived above the distant tips will largely not influence the character of the largely intact and well-managed but diluted by pylons, the dominance of transport corridors and large-scale industry of the *Mid Cornwall Moors (CCA26)*. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. Although, in

[30] St Stephen in Brannel Parish Council, St Stephen in Brannel Parish Neighbourhood Development Plan, 2023-2030, Referendum Version, June 2024

reality, for the majority of the *Mid Cornwall Moors (CCA26),* the influence of the proposed development will easily go unnoticed.

6.38 Further to the north of the proposed development, extending to the fringes of the study area is the **medium** sensitivity *Camel and Allen Valleys (CCA29)*, which is also partly within the locally recognised **medium-high** sensitivity Camel and Allen AGLV, towards the northern fringes of the study area. Although intermittently within the ZTVs, the influence of the proposed development on this intimate and wooded landscape, separated by more open plateaus and scattered with Band B single operational wind turbines, will be difficult to ascertain. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. Although, in reality, for the majority of the *Camel and Allen Valleys (CCA29),* including within the more intimate and well-vegetated **medium-high** sensitivity AGLV, the influence of the proposed development will easily go unnoticed.

6.39 To the east of the proposed development, extending to the north-eastern, eastern and south-eastern fringes of the study area is the **medium-high** sensitivity, **high** sensitivity within the nationally recognised landscapes, *St Austell Bay and Luxulyan Valley (CCA30)*.

6.40 At worst and as illustrated on the ZTVs, only the blade tips of the proposed development will have the potential to be intermittently perceived from within the *St Austell Bay and Luxulyan Valley (CCA30)*.

6.41 Even from high points within the *St Austell Bay and Luxulyan Valley (CCA30)*, the potential visibility of the proposed development will be extremely restricted and it will be difficult to 'pick out' within a landscape already indirectly influenced by scattered operational wind energy schemes. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. However, barely viewed as additional vertical elements (and worst case, only just the blade tips) within a landscape and views already influenced by other scattered wind energy schemes, the addition of the proposed development will not significantly affect the key characteristics and features of the landscape character area. Although with the potential to be distantly and selectively perceived, for the vast majority of the *St Austell Bay and Luxulyan Valley (CCA30)*, the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

6.42 To the south of the proposed development, extending to the southern fringes of the study area is the **medium** sensitivity, increasing to **medium-high** sensitivity within the AGLV and **high** sensitivity within the nationally recognised landscapes, *Gerrans, Veryan and Mevagissey Bays (CCA22)*.

6.43 Intermittently within the ZTVs, the proposed development will have the potential to be distantly perceived from selected open and elevated locations within the inland plateau of irregular mixed farmland, scattered with operational single and small-clusters of wind turbines (outside the National Landscape) varying from Band B to Band D, away from the more enclosed sweeping coastal bays. As illustrated in **Viewpoint 13 (Figures 24A-24D)** and **Viewpoint 15 (Figures 26A-26D),** from selected elevated and open locations within the inland agricultural landscape, distant views towards the proposed development, set amidst an industrial landscape, scattered with other operational wind energy schemes will be possible.

6.44 The proposed development will be selectively and distantly viewed from within the *Gerrans, Veryan and Mevagissey Bays (CCA22)* as additional vertical elements within the inland industrial influenced landscape, within a landscape already influenced by other

scattered operational wind energy schemes. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse** to **minor-negligible adverse** (within the **medium-high** and **high** sensitivity landscapes). The effects will be **not significant**. However, the addition of the proposed development will not significantly affect the key characteristics and features of the landscape.

6.45 Although with the potential to be distantly and selectively perceived, for the majority of the *Gerrans, Veryan and Mevagissey Bays (CCA22)*, the magnitude of impact will be **no change**, the level of effect will be **neutral.** The effects will be **not significant.**

6.46 To the south-west of the proposed development, extending to the south-western fringes of the study area is the **medium-high** sensitivity *Fal Valley (CCA21)* and the **medium-high** sensitivity *Truro and Tresillian Valleys (CCA20).*

6.47 Intermittently within the ZTVs, the proposed development will have the potential to be distantly perceived from a few selected open locations within the undulating plateau landscapes, separated by intimate and well-vegetated valleys. The proposed development will have the potential to be selectively and distantly perceived as additional vertical elements within the distant inland industrial influenced landscape. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. However, the addition of the proposed development will not significantly affect the key characteristics and features of the landscape and will largely go unnoticed, through a combination of distance and screening by surrounding mature vegetation within the predominantly mixed agricultural and well-vegetated landscapes.

6.48 To the south, south-west and west of the proposed development, extending to the western fringes of the study area is the **medium** sensitivity *Upper Fal Valleys (CCA19)*, which is also partly within the **medium-high** sensitivity Arrallas Farm/St Erme River Valleys AGLV.

6.49 Intermittently within the ZTVs, the proposed development will have the potential to be distantly perceived from a few selected open locations within the gentle undulating plateau farmland landscapes, separated by intimate and well-vegetated small river valleys. The proposed development will have the potential to be selectively and distantly perceived as additional vertical elements within the distant inland industrial influenced landscape. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. However, the addition of the proposed development will not significantly affect the key characteristics and features of the landscape and will largely go unnoticed, through a combination of distance and screening by surrounding mature vegetation within the predominantly mixed agricultural and well-vegetated landscape.

6.50 To the west, north-west and north of the proposed development, extending to the fringes of the study area is the **medium** sensitivity *St Newlyn East to St Columb Major (CCA25)*.

6.51 Intermittently within the ZTVs, the proposed development will have the potential to be distantly perceived from a few selected open locations within the gentle undulating agricultural landscape. As illustrated in **Viewpoint 14 (Figures 25A-25D),** from the elevated and open fringes of Castle-an-Dinas, distant views are possible across the lower undulating landscape towards the distant tips and the proposed development. The proposed development will have the potential to be selectively and distantly perceived as additional vertical elements within the industrial influenced landscape. At worst, the

magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**.

Operational Impacts and Effects on Visual Amenity Receptors and their Views

An Overview of Visual Amenity Receptors and their Visibility within the Study Area

6.52 The operation of the proposed development will introduce new tall vertical moving built elements which will have the potential to be perceived by surrounding visual amenity receptors.

6.53 With reference to the ZTVs (**Figures 10-11**) and the viewpoints (**Figures 12-29**), the proposed development will be perceived over a variable area, potentially only from a few visual amenity receptors in close proximity and from open and/or elevated areas further afield.

6.54 The sensitive design and siting of the proposed development within an undulating industrial landscape also help to restrict the influence of the proposed development on surrounding visual amenity receptors and their views.

Settlements – Towns, Villages and Hamlets

6.55 There are a number of **high** sensitivity towns, villages and hamlets scattered throughout the study area, generally situated along the major road corridors or associated with the quarry workings, including the large coastal town of St Austell approximately 4km to the south-east of the proposed development at its closest point, extending to the boundary with St Austell Bay. Largely sloping down towards the coastal fringes and enclosed by surrounding development, it will be only from the western fringes of St Austell, that potential glimpses of the proposed development will be possible. The proposed development will be, at worst, glimpsed from selected open locations on the settlement fringes, where views over the adjacent undulating farmland towards the tips and mineral workings and scattered wind energy schemes will be possible from the fringes of the settlement. The proposed development will add two additional vertical elements to the view with at worst, **negligible impacts** and **minor-negligible adverse** effects. The effects will be **not significant**.

6.56 Nanpean occurs approximately 1km to the west of the proposed development at its closest point. Stretched out along a network of minor roads, broadly extending from north to south, views across the nearby sloping fields, including towards the rising tips and the proposed development will be possible from selected open locations on the fringes of the settlement. As illustrated in **Viewpoint 5 (Figures 16A-16D)**, from a public right of way and **Viewpoint 10 (Figures 21A-21D)** from a minor road, as they emerge from the enclosure of Nanpean, views will be possible across the surrounding well-vegetated sloping fields, towards the rising tips. Selected close proximity views towards the proposed development from the settlement fringes, although often limited by variations in the immediate sloping landform as well as screening by development and vegetation, will be possible. The proposed development will be perceived within the adjacent industrial landscape as two vertical moving elements in the view. The magnitude of impact will be **medium**. The level of effect will be **moderate adverse**. The effects will be **not significant**.

6.57 Views towards the proposed development will also be possible from the fringes of the nearby settlement of Foxhole/Goverseth to the south-west and Whitemoor to the north-west. Set on the lower slopes, amidst the undulating landscape and heavily influenced by surrounding industry and mineral workings, wider views from these settlement fringes will be possible, although often limited by intervening development, vegetation and variations in landform. As illustrated in **Viewpoint 9 (Figures 20A-20C)**, from the fringes of a new housing development on the fringes of Foxhole/Goverseth, views will be possible across the lower well-vegetated slopes, towards the rising tips. The proposed development will be perceived within the adjacent industrial landscape as two vertical moving elements in the view. The magnitude of impact will be **medium**. The level of effect will be **moderate adverse**. The effects will be **not significant**.

6.58 The contained Greystones Caravan Park also occurs approximately 1.1km to the south. Set amidst a gently undulating landscape, wider views to the north towards the rising tips and the proposed development will possible although often restricted by intervening wider sloping landform and mature vegetation, in particular enclosing the settlement fringes. The proposed development will be perceived within the adjacent industrial landscape as two vertical moving elements in the view. The magnitude of impact will be **medium**. The level of effect will be **moderate adverse**. The effects will be **not significant**.

6.59 Other settlements further afield, including St Stephen approximately 3.6km to the south-west and St Dennis approximately 2.4km to the north-west are focussed around a church, situated on elevated ground within the settlements.

6.60 As illustrated in **Viewpoint 1 (Figures 12A-12D)**, from the elevated St Dennis Church and **Viewpoint 18 (Figures 29A-29D)** from St Stephens Churchyard, wider views will be possible from selected open locations within and on the fringes of these settlements across the surrounding settlement and farmland, including towards the conical and distinctive distant tips and the proposed development. At worst, the magnitude of impact will be **medium-low**, the level of effect will be **moderate-minor adverse**. The effects will be **not significant**, although the influence of the proposed development will often be restricted by subtle variations in the intervening landform as well as screening in the nearby settlements by surrounding development and mature vegetation.

6.61 Roche is also situated approximately 3.4km to the north and views from the settlement fringes, as illustrated in **Viewpoint 2 (Figures 13A-13D)** from Roche Rock, are dominated by the surrounding tips, including the numerous lines of pylons that cross the landscape. Even from this open location, only the blade tips of the proposed development will be visible above the intervening tips. The proposed development will easily go unnoticed in the view, which is dominated by the more prominent pylons. At worst, the magnitude of impact will be **negligible**, the level of effects will be **minor-negligible adverse**. The effects will be **not significant**. Although in reality the influence of the proposed development will be difficult to ascertain or be even noticeable and for the majority of the settlement, the magnitude of impact will be **no change**, the level of effect will be **neutral**.

Scattered Residential Properties

6.62 Individual **high** sensitivity residential properties and farms are scattered within the undulating landscape of the study area, often stretched out along the network of minor roads, or focussed along junctions, becoming sparser within the industrial landscape, including in close proximity to the proposed development.

6.63 Most of these houses and farms have restricted views into the surrounding landscape from a combination of vegetation enclosing many properties, screening provided by adjacent development, subtle variations in landform and by the numerous lines of mature vegetation, including hedgerows, linear tree belts, mature trees, small copses and woodlands, in the wider landscape. For the majority of **high** sensitivity scattered residential properties in the study area, the proposed development will not influence their views and the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

6.64 There are however a number of residential properties within close proximity, including stretched out along Old Pound Road from the south-west to the south of the proposed development. Old Pound Road connects with Goverseth Hill to the south-west, passing to the south of the proposed development, before connecting with the permissive quarry road to the south, at the junction with Water Hill minor road.

6.65 The housing lined Old Pound Road slopes up gently from the south-west to the south, with the well-vegetated slopes associated with the adjacent tip rising up immediately to the north of the houses.

6.66 As illustrated in **Viewpoint 6 (Figures 17A-17C)** to the south and **Viewpoint 8 (Figures 19A-19C)** to the south-west, from gaps in the vegetative enclosure along Old Pound Road, views towards the adjacent rising tips, including towards the proposed development, from the nearby houses will be possible. However, it should be acknowledged that these representative viewpoints are from gaps in enclosure along Old Pound Road itself and views from the houses will be substantially more screened by adjacent vegetation and sloping landform. At worst, the magnitude of impact will be **medium**, the level of effect will be **moderate adverse**. The effects will be **not significant**. However, the majority of the views from the houses stretched out along Old Pound Road will be limited by intervening vegetation, development and large variations in landform, which will restrict the influence of the proposed development on the views. The variations in landform, in combination with the sensitive siting of the proposed development, set back from the plateau, will also ensure that for the majority of views where the proposed development will be viewed, only part of the proposed wind turbines will be perceived. As illustrated in **Viewpoint 6 (Figures 17A-17C)** and **Viewpoint 8 (Figures 19A-19C)** even from these open locations only part of the proposed wind turbines will be perceived, which will reduce the influence of the proposed development. It is important to note that views of the proposed development from the closest residential properties will therefore not be overbearing or dominate the view.

National Trails

6.67 The **high** sensitivity South West Coast Path National Trail crosses the study area to the south-east approximately 7.7km to the south-east of the proposed development at its closest point.

6.68 Largely excluded from the ZTVs and following the dramatic coast, as well as skirting the settlement fringes of St Austell, views are focussed across the coast and coastal fringes, with views inland, including towards the proposed development, largely restricted by the adjacent undulating and well-vegetated agricultural landscape and extensive development around St Austell. From the vast majority of the National Trail, the proposed development will not be perceived, and the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

Recreational Routes

6.69 The **high** sensitivity Saints Way recreational route crosses the study area from the north-east to the east, approximately 7.7km to the east of the proposed development at its closest point.

6.70 Excluded from the ZTVs, from the recreational route, the proposed development will not be perceived, and the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

National Cycle Routes

6.71 Numerous **high** sensitivity National Cycle Routes (NCRs) cross the study area, generally passing from the north-west, to the north-east, east, south-east and south, with many of the routes connecting at St Austell to the south-east.

6.72 The majority of NCRs, particularly to the north-east, east and south-east are excluded from the ZTVs, including the closest, NCR2, the Clay Trail, which passes approximately 3.1km to the east of the proposed development at its closest point, connecting with the Wheal Martyn Museum and Country Park. For the majority of the NCRs in the study area, the magnitude of impact will be **no change**, the level of effect will be **neutral.** The effects will be **not significant.**

6.73 Even when intermittently within the ZTVs including to the north and north-west, the NCRs, which largely follow minor roads as well as purpose-built routes along former railway lines associated with the mining landscape, views from the NCRs towards the proposed development will be largely restricted. The immediate enclosure by vegetation, including Cornish hedges as well as the wider screening by development and undulating landform including the numerous and dramatic tips surrounding the proposed development and within the wider landscape will restrict the majority of views. As illustrated in **Viewpoint 12 (Figures 23A-23C)** from NCR305 along a minor road crossing Goss Moor to the north, even from this open location, although views over the adjacent moorland and farmland are possible, long distance views towards the proposed development will be largely restricted by the distant tips on the horizon. At worst, only the blade tips of the proposed development will be perceived and will easily go unnoticed in the view. At worst, the magnitude of impact will be **negligible**, the level of effect will be **minor-negligible adverse**. The effects will be **not significant**.

Places of Interest (including Country Parks)

6.74 The **high** sensitivity and renowned Eden Project, approximately 7.2km to the east and the **high** sensitivity Wheal Martyn Museum and Country Park, approximately 2.8km to the east are excluded from the ZTVs. There would be no views of the proposed development from these places of interest and the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

6.75 Even from the Lost Gardens of Heligan, approximately 9.6km to the south, which is within the ZTVs, a combination of distance and screening by mature vegetation both within and surrounding the place of interest will restrict any influence the proposed development may have on its setting. The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

Local Public Rights of Way, Bridleways and Cycleways

6.76 There are **medium-high** and **high** (within the National Landscape) sensitivity scattered public rights of way, bridleways and cycleways present within the study area.

6.77 The public rights of way within the study area are generally enclosed by thick hedgerows and mature tree and woodland vegetation which will restrict most views into the wider rolling agricultural landscape, including towards the proposed development, set amidst and against a backdrop of existing tips, spoil heaps and quarries and often perceived in combination with other wind energy schemes.

6.78 As illustrated in **Viewpoint 16 (Figures 27A-27D)**, from a gap in enclosure along the **medium-high** sensitivity public right of way at Innis Downs to the north-east, although views are possible across the immediate fields, including towards scattered operational wind energy schemes, only glimpses of the blade tips of the proposed development will be possible, just above the distant tips. The proposed development will easily go unnoticed in the view from the public right of way and the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**.

6.79 Even from a public right of way on the fringes of the National Landscape to the south-east, as illustrated in **Viewpoint 15 (Figures 26A-26D)**, it will only be from selected open and elevated locations that expansive and distant views, including towards the proposed development, will be possible. Set amidst scattered operational wind energy schemes, the proposed development has the potential to be viewed from the public right of way, just above the horizon. At worst, the introduction of two additional moving and vertical elements on the views from the **high** sensitivity public right of way, in the National Landscape, the magnitude of impact will be **negligible**, the level of effect will be **minor-negligible adverse**. The effects will be **not significant.**

6.80 It will generally only be from those few **medium-high** sensitivity public rights of way in close proximity that will experience exposed views towards the proposed development.

6.81 The closest public rights of way to the proposed development, branch out from Nanpean to the west, from Foxhole/Goverseth to the south-west and Greystones Caravan Park to the south, although the closest public right of ways, including 422/79/4, extending south from Old Pound and 422/83/1, extending west from Water Hill minor road appear to be not accessible and could not be found during the site survey.

6.82 Selected close proximity views will be possible from the nearby public rights of way, although often limited by variations in the immediate sloping landform as well as screening by development and vegetation.

6.83 As illustrated in **Viewpoint 5 (Figures 16A-16D)**, as the public right of way emerges from the enclosure of Nanpean, views will be possible across the surrounding well-vegetated sloping fields, towards the rising tips and the proposed development. The proposed development will be perceived as vertical moving elements, above the adjacent tip. The magnitude of impact will be **medium**, the level of effect will be **moderate adverse**. The effects will be **not significant**.

Open Access Areas

6.84 The scattered **medium-high** sensitivity open access areas within the study area are largely focussed on open and elevated locations within the wider undulating and varied

landscape and are intermittently within the ZTVs. Selected wider views will be possible across the rolling landform including towards the distinctive tips and quarries, punctuated by scattered single and small clusters of operational wind energy schemes and the proposed development.

6.85 As illustrated in **Viewpoint 4 (Figures 15A-15D)**, expansive views will be possible from the open access area to the north-east adjacent to Hensbarrow Beacon across the landscape of rough grassland, dominated by large tips and quarry workings and crossed and punctuated by lines of pylons and scattered wind energy schemes. The proposed development will have the potential to be perceived, although largely obscured by the intervening tips. The magnitude of impact will be **medium-low**, the level of effect will be **moderate-minor adverse**. The effects will be **not significant**.

6.86 Expansive views will also be possible from St Stephen's Beacon open access area to the south-west. As illustrated in **Viewpoint 3 (Figures 14A-14D)**, from this elevated and open location, views will be possible across the adjacent settlement of Foxhole/Goverseth, spread out along the slopes, towards the distant tips. The proposed development will be perceived as two moving vertical elements within the industrial landscape. The magnitude of impacts will be **medium**, the level of effect will be **moderate adverse**. The effects will be **not significant**.

6.87 From the open access areas further afield, as illustrated in **Viewpoint 2 (Figures 13A-13D)** from Roche Rock to the north-east and **Viewpoint 12 (Figures 23A-23C)** from Goss Moor to the north, although views will be possible across the intervening landscape, towards the distant tips, which form the horizon and restrict wider views, including towards other operational wind energy schemes, the proposed development will be barely (if at all) perceived within the expansive view. The magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. In reality, however, the proposed development will easily go unnoticed in the view.

6.88 However, from the more distant and elevated open access areas, towards the fringes of the study area, including from Castle-an-Dinas to the north-west, as illustrated in **Viewpoint 14 (Figures 25A-25D)** and from Helman Tor to the north-east, as illustrated in **Viewpoint 17 (Figures 28A-28D)**, wider views will be possible. From these elevated and open locations, expansive views will be possible across the lower varied undulating farmland and wooded landscape, including towards the distant tips on the horizon, punctuated by scattered operational wind energy schemes and the proposed development. Although distantly perceived, the proposed development, even in combination with other operational wind energy schemes, will not dominate or largely influence the expansive view. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**. In reality, however, the proposed development will easily go unnoticed in the view.

Major Roads

6.89 Numerous **low** sensitivity major roads pass through the study area, the closest, the A3058, crossing the study area from the west to the east, passing through St Austell to the south-east, approximately 2.9km to the south of the proposed development at its closest point.

6.90 Largely enclosed by development and mature vegetation, it is only from a few selected open locations, including as the A3058 emerges from the enclosure of St Austell, those more expansive views across the wider industrial and farming landscape, scattered with operational wind energy schemes, including towards the blade tips of the proposed

development only, will be possible. At worst, only the blade tips of the proposed development will have the potential to be perceived, with **negligible impacts** and **negligible adverse effects**, although in reality the influence of the proposed development will be difficult to perceive and will easily go unnoticed in the view. The effects will be **not significant**.

6.91 The A391 also crosses the study area from the north-east, where it connects with the A30 at a junction, to the south-east passing through St Austell, approximately 3.5km to the east of the proposed development at its closest point. Largely excluded from the ZTVs as well as enclosed by development and mature vegetation, there will be limited potential for glimpsed and fleeting views towards the proposed development. The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

6.92 Further afield and for the vast majority of the lengths of the major roads, the proposed development will not be perceived. The major roads, including the A30 broadly extending across the study area from the north-east to the west, will be largely enclosed by rolling landform, adjacent development and surrounding mature vegetation which will restrict views towards the proposed development. The magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

Minor Roads

6.93 Numerous **medium-low** sensitivity minor roads cross the study area and are largely enclosed by mature linear tree belts, hedgerows and hedgebanks, as well as development which will restrict the majority of wider views, including towards the proposed development.

6.94 It will only be from close proximity, from selected high points, or gaps in the enclosure, that views into the surrounding farmland and industrial influenced landscape, including the proposed development and scattered operational wind energy schemes, will be possible.

6.95 Old Pound Road connects with Goverseth Hill to the south-west, passing to the south of the proposed development, before connecting with the permissive quarry road to the south, at the junction with Water Hill.

6.96 As illustrated in **Viewpoint 6 (Figures 17A-17C)** to the south and **Viewpoint 8 (Figures 19A-19C)** to the south-west, from gaps in the vegetative enclosure along Old Pound Road, views towards the adjacent rising tips, including towards the proposed development, will be possible. At worst, the magnitude of impact will be **medium-high**, the level of effect will be **moderate-minor adverse**. The effects will be **not significant**. However, many of the views from Old Pound Road will be limited by intervening vegetation, development and large variations in landform, which will restrict the influence of the proposed development on the oblique and fleeting views from the minor road. The subtle variations in landform, in combination with the sensitive siting of the proposed development will also ensure that for the majority of views, only part of the proposed wind turbines will be perceived, as illustrated in **Viewpoint 6 (Figures 17A-17C)** and **Viewpoint 8 (Figures 19A-19C)**.

6.97 As illustrated in **Viewpoint 7 (Figures 18A-18C)**, however, as the Water Hill minor road moves away from the variable screening along Old Pound Road, more expansive views will be possible from gaps in enclosure along the minor road, across the intervening vegetation and development, towards the rising tips, including towards the proposed development, although at least partially limited by the intervening landform. The

magnitude of impact will be **medium-high**, the level of effect will be **moderate-minor adverse**. The effects will be **not significant**.

6.98 Variations in the dramatically sloping landform associated with the industrial landscape helps to limit wider views towards the proposed development from the permissive quarry road as it heads to the east, although views towards the nearby operational single wind turbines on the surrounding slopes are possible from gaps in enclosure along the minor road.

6.99 The permissive quarry road connects with Greensplat Road to the south-east and many views from Greensplat Road towards the proposed development will be restricted by intervening hedgebanks and linear vegetation. As illustrated in **Viewpoint 11 (Figures 22A-22D)**, even from an open and elevated location along Greensplat Road to the south-east, the intervening tips will help to limit wider views towards the proposed development, although the operational single wind turbine at Higher Goonamarth Farm is perceived. Only the blade tips of one of the proposed wind turbines will have the potential to be perceived, adjacent and in combination with the operational wind turbine at Higher Goonamarth Farm and will easily go unnoticed in the view. At worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**.

6.100 Views will also be possible in close proximity from selected open locations along the surrounding network of minor roads, particularly as they emerge from the enclosure of the nearby settlements. As illustrated in **Viewpoint 10 (Figures 21A-21D)**, from Currian Hill minor road, on the fringes of Nanpean, expansive views will be possible across the immediate sloping fields, towards the dramatically rising tips and the proposed development.

6.101 Selected close proximity views towards the proposed development will be possible as the minor road emerges from the enclosure of the settlement, although often limited by variations in the immediate sloping landform as well as screening by development and vegetation. The proposed development will be perceived within the adjacent industrial landscape as two vertical moving elements in the view. The magnitude of impact will be **medium**. The level of effect will be **minor adverse**. The effects will be **not significant**.

6.102 Further afield, along the network of minor roads that cross the study area, it will only be from selected open and/or elevated locations, that more expansive views towards the proposed development, over the surrounding undulating agricultural and wooded landscape, punctuated with scattered wind energy schemes, including the dramatic distant tips, will be possible.

6.103 As illustrated in **Viewpoint 13 (Figures 24A-24D)**, from Chapel Hill minor road, near Sticker, to the south, from an open location along a minor road, otherwise enclosed by hedgebanks, views across the farmland landscape towards the distant tips, scattered with wind energy schemes, including the proposed development, will be possible. Only part of the proposed development, above the intervening sloping landform, will have the potential to be perceived and will not dominate the view. The magnitude of impact will be **low**, the level of effect will be **negligible adverse**. The effects will be **not significant**.

6.104 However, as illustrated in **Viewpoint 12 (Figures 23A-23C)** from a minor road crossing Goss Moor to the north, even from this open location although views over the surrounding landscape towards the proposed development will be possible, only the blade tips will be perceived just above the intervening tips. The proposed development will easily go

unnoticed in the view and at worst, the magnitude of impact will be **negligible**, the level of effect will be **negligible adverse**. The effects will be **not significant**.

Railway Lines

6.105 A number of **low** sensitivity railway lines cross the study area, connecting and passing through St Austell to the south-east, with wider views, including towards the proposed development, generally restricted by a combination of adjacent development, undulating landform and mature vegetation. Even if obliquely glimpsed, the proposed development will be viewed as additional vertical elements, set within a landscape already influenced by scattered operational wind energy schemes, its addition will be difficult to ascertain.

6.106 For the vast majority of users of the railway lines in the study area, the magnitude of impact will be **no change**, the level of effect will be **neutral**. The effects will be **not significant**.

7. Cumulative Impacts and Effects

7.1 The proposed development is considered 'in addition' to:

- Operational wind energy schemes in the study area, where the wind turbines already exist. Operational wind energy schemes are also discussed within the 'main' impacts section of the LVIA;
- Consented wind energy schemes where they are highly likely to exist; and
- Pending planning wind energy schemes in the study area where there is only the potential that they will exist – depending on the success of the planning application.

7.2 To aid in the cumulative assessment, additional photomontages have been created for the viewpoints (**Viewpoints 1-5, Figures 12D-16D, Viewpoints 10-11, Figures 21D-22D and Viewpoints 13-18, Figures 24D-29D**), showing the proposed development in combination with the nearby consented and pending planning wind energy schemes. The consented and pending planning wind energy schemes, as shown on the viewpoints, are all single turbines and the same size as the proposed development – 135m to blade tip (Band D).

7.3 The location of the wind energy schemes within the 20km radius study area are illustrated in **Figure 3**.

Landscape Character

7.4 As illustrated in **Viewpoints 1-5 and 10 (Figures 12D-16D and 21D)**, within the *St Austell or Hensbarrow China Clay Area (CCA27 and RLU13),* the proposed development has the potential to be perceived separated but in combination with the nearby operational and consented wind turbines. The proposed development will largely be perceived as separate vertical moving elements, viewed as a small cluster of two, within an expansive industrial landscape.

7.5 Even in **Viewpoint 11 (Figure 22D)**, the proposed development, although with the potential to be perceived as part of a small cluster with the nearby consented single Band D wind energy schemes at Higher Goonamarth 2, Longstones and East Karslake, will be largely hidden behind the nearby tip, its additional cumulative influence difficult to ascertain.

7.6 With reference to the RELS Assessment, the proposed development, although viewed occasionally with the nearby consented wind energy schemes, will be perceived within "*a landscape with occasional wind energy developments to preserve the landmark features within it (and its distinctive skyline profile visible in long views), and to limit cumulative landscape effects."*

7.7 Further afield, as illustrated in **Viewpoints 13-18 (Figures 24D-29D)**, within the wider landscape of the study area, the proposed development will be distantly perceived as additional vertical elements, within an expansive industrial landscape, already influenced by wind energy schemes. The addition of the proposed wind turbines, in combination with the operational, consented and pending planning wind turbines, will not dramatically change the wider characteristics of the landscape character areas or create a landscape dominated by wind turbines.

7.8 The introduction of two additional moving vertical elements, separated but in combination with the operational, consented and pending planning wind turbines, however, will increase the perception of wind energy on the landscape.

7.9 In summary, even with the addition of the proposed development, separated but in combination with the operational, consented and pending planning wind turbines, will not dominate the landscape or influence the setting of landscape relevant designations. The undulating, industrial influenced landscape appears to have the capacity to absorb the proposed wind turbines even in combination with other wind energy schemes without creating a 'wind farm' landscape.

Visual Amenity Receptors and their Views

Combined Views

7.10 As illustrated in **Viewpoints 1-5 and 10 (Figures 12D-16D and 21D)**, the proposed development has the potential to be perceived separated but in combination with the nearby operational and consented wind turbines. The proposed development will largely be perceived as separate vertical moving elements, viewed as a small cluster of two, within an expansive industrial landscape.

7.11 Even in **Viewpoint 11 (Figure 22D)**, the proposed development, although with the potential to be viewed as part of a small cluster with the nearby consented single Band D wind energy schemes at Higher Goonamarth 2, Longstones and East Karslake, will be largely hidden behind the nearby tip, its additional cumulative influence difficult to ascertain.

7.12 Further afield, as illustrated in **Viewpoints 13-18 (Figures 24D-29D)**, from selected distant, elevated and open locations, the proposed development will be distantly viewed as additional vertical elements, within an expansive industrial landscape, already influenced by wind energy schemes. The addition of the proposed wind turbines, separated but in combination with the operational, consented and pending planning wind turbines, will not dramatically change the wider views or create views dominated by wind turbines.

7.13 The introduction of two additional moving vertical elements, separated but in combination with the operational, consented and pending planning wind turbines, however, will increase the perception of wind energy on views.

7.14 The proposed wind turbines, separated but in combination with the operational, consented and pending planning wind turbines, will add to the perception of wind energy schemes in the view. The addition of the proposed wind turbines, even when perceived separated but in combination with the nearby consented wind turbines, will not dominate the view.

Sequential Views

7.15 Passing in often close proximity to the operational, consented and pending planning wind energy schemes in the study area as well as the proposed development, sequential views of wind energy schemes will be possible from the transport corridors including the adjacent close proximity minor roads and public rights of way.

7.16 The screening surrounding many of the transport corridors, largely focussed along the well-vegetated valley floors or set within an undulating and developed landscape, however, will ensure that many views of wind energy schemes will be glimpsed and quickly vanish due to a combination of enclosure by mature vegetation and the undulating landform.

7.17 In sequential views from the transport corridors, the proposed development and the operational, consented and pending planning wind energy schemes will add vertical elements to the view.

7.18 The addition of these moving vertical elements, even in combination with the nearby consented and pending planning wind turbines will not create ‘wind farm’ dominated journeys.

8. Conclusions

8.1 The landscape around the proposed development is dominated by the surrounding existing and remnants of the china clay works, interspersed with rolling well-vegetated farmland. Visual amenity receptors consist of scattered residential properties and farms and towns and villages connected by a network of transport corridors including major and minor roads and public rights of way. Selected views are only possible from limited scattered receptors, generally only where gaps in vegetation cover or when elevated open land allows occasional expansive views.

8.2 The site is not recognised for its value through any landscape relevant designations, although there are scattered landscape relevant designations within the study area. The nationally recognised Cornwall National Landscape occurs to the south-east, extending and focussed along the coastal fringes. There are four locally recognised Areas of Great Landscape Value on the fringes of the study area to the south-west, east, north and west and the Cornwall and West Devon Mining Landscape World Heritage Site occurs to the east and south-east. There are two Registered Parks and Gardens present and some of the centres of the scattered towns and villages are recognised as Conservation Areas. There are also a few widely scattered Ancient Woodlands present.

8.3 Mitigation measures during the site selection and design stages have ensured that the proposed development will have limited direct effects on landscape elements, mainly the loss of grassland and no landscape vegetation such as hedgerows will be lost. Proposed additional ecological mitigation measures will more than compensate for this limited loss and help to improve the overall biodiversity and nature conservation of the site and

immediate surroundings. The design and location of the proposed development within a wider industrial landscape also minimises the wider impacts on landscape character, landscape relevant designations and nearby visual amenity receptors. However, the proposed development, due to its scale, will affect both landscape character and visual amenity receptors and their views during construction, operation, and decommissioning.

8.4 The containment and enclosure provided by the surrounding dramatic and occasionally well-vegetated landscape will also ensure that the proposed development will only have minimal effects on both landscape character and visual amenity receptors and their views during construction and decommissioning. Crane activity will be perceived and will draw attention to the proposed development within the landscape and be visible for selected close proximity visual amenity receptors, but their presence will not be out of place within this changing industrial landscape. The cranes will also be present for a very short period of time and will be temporary.

8.5 During the operation period, the proposed wind turbines, due to their scale, will be visible and potentially perceived over a relatively wide area. However, the majority of effects on landscape character and visual amenity receptors and their views will be minimal, largely because of the enclosure provided by the surrounding tips and spoil heaps as well as mature vegetation, undulating landform, and development in the wider landscape. Exposed views of the proposed wind turbines will generally be only from those receptors in close proximity or from selected, high, and open locations further afield. However, although potentially and selectively perceived, the proposed development will be viewed as additional built moving elements, separated but in combination with the adjacent operational, consented and pending planning wind energy schemes, within an expansive industrial landscape already influenced by extensive development, including wind energy schemes.

8.6 Further afield, the proposed development will have the potential to be perceived, particularly from selected open and/or elevated locations. It will be viewed as additional vertical elements within a landscape and views already scattered with operational, consented and pending planning wind energy schemes. The proposed development will add two vertical moving elements. With distance, however, the proposed development will easily become ‘lost’ within the wider landscape, set within a landscape and views already influenced by scattered wind energy development.

8.7 With regard to the landscape character areas and the setting of landscape relevant designations, the proposed development will not dramatically change the characteristics of the wider landscape or affect the integrity of landscape relevant designations. The setting of the proposed wind turbines within an industrial landscape, which is reasonably tolerant to change, will ensure that there will be limited indirect effects on landscape character areas and the setting of landscape relevant designations. The proposed development will be selectively visible but will largely be perceived as additional built elements, often separated but in combination with other similar sized wind turbines, within a landscape already influenced by development. The proposed development will fit within the existing landscape pattern and will not be out of scale with the surrounding landscape.

8.8 Exposed views of the proposed development from visual amenity receptors will be limited and will be generally only from those very few receptors in close proximity, from selected high points or where there is limited vegetation cover or ‘gaps’ in the enclosing vegetation and development further afield. These receptors already experience views of the working, industrial landscape, including operational, consented and pending planning wind energy schemes. However, it is important to note that views of the proposed wind turbines will not be ‘overbearing’ or dominate the view, largely perceived separated but in combination

with other operational, consented and pending planning wind energy schemes. Set within a working industrial landscape, relatively few visual amenity receptors will have close-range views of the proposed development and the majority of wider views will be obscured by localised screening from vegetation, variations in landform and adjacent development. The influence of the proposed development will also very rapidly decrease with distance where the majority of views will be obscured by localised screening from intervening development and mature vegetation.

8.9 In summary, the proposed development will:

- Add two built vertical moving elements to the landscape;
- Avoid and does not have a direct impact on any designated landscapes;
- Be set within a landscape heavily influenced by china clay works and tips, with reasonable ability to accommodate change without detriment to its landscape character;
- Is positioned within a landscape that has the capacity to accept wind energy development (as defined by CC and St Stephen in Brannel Parish Council);
- Be perceived in close proximity as a prominent vertical elements, largely separated but in combination to similar scale operational, consented and pending planning wind turbines;
- Very quickly become ‘lost’ within the wider expansive undulating landscape; and
- Overall, have relatively limited effects on landscape relevant designations, landscape character and visual amenity receptors and their views.

Appendix A - References

LVIA References

The Landscape Institute and the Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment (GLVIA), Third Edition, 2013

The Landscape Institute, Technical Guidance Note 06/19, Visual Representation of Development Proposals, 17th September 2019

The Landscape Institute, Technical Guidance Note 02/21 Assessing Landscape Value Outside National Designations

The Landscape Institute, Technical Information Note 01/17, Tranquillity – An Overview

General LVIA Designation References

The government information website (www.magic.gov.uk)

Local Plan References

Cornwall Council interactive maps (www.cornwall.gov.uk)

Cornwall Council, Cornwall Local Plan, Strategic Policies 2010 – 2030, Adopted November 2016

Cornwall Council, The Cornwall National Landscape Management Plan, 2022-2027, Adopted May 2022

Cornwall Council, Cornwall Area of Great Landscape Value (AGLV) Review, 2023 (on-line via interactive map www.cornwall.gov.uk)

Cornwall Council, St Austell China Clay Restoration and Tipping Supplementary Planning Document (SPD), March 2022

St Stephen in Brannel Parish Council, St Stephen in Brannel Parish Neighbourhood Development Plan, 2023-2030, Referendum Version, June 2024

Landscape Character References

National Character Area profiles (www.nationalcharacterareas.co.uk)

Cornwall Council, Landscape Character Assessment, 2022 (on-line via interactive map www.cornwall.gov.uk)

Cornwall Council, Review of the Cornish Renewable Energy Landscape Sensitivity (RELS) Assessment, Final Report, December 2020

Cornwall Renewable Energy Advice, Annex 1: An assessment of the landscape sensitivity to on-shore wind energy and large-scale photovoltaic development in Cornwall, Cornwall Council, March 2016

Visual Amenity References

SUSTRANS website for important cyclepaths (www.sustrans.org.uk)

Open access website (www.openaccess.naturalengland.org.uk)

National Trust website (www.nationaltrust.org.uk)

Cumulative LVIA References

Renewable Energy Statistics Database for the United Kingdom (REStats) (www.gov.uk)

National infrastructure planning portal for large scale wind energy developments in England and Wales (www.infrastructure.planninginspectorate.gov.uk)

Cornwall Council Onshore Wind Energy Maps (www.cornwall.gov.uk)

Cornwall Council planning portal (www.cornwall.gov.uk)

Appendix B – Technical Information

Introduction

The interpretation of the magnitude of impact and the level of effect of the proposed development was determined with the assistance of specialist computer generated information.

The Landscape Institute '*Technical Guidance Note 06/19, Visual Representation of Development Proposals, 17th September 2019* was referenced for the creation and presentation of the landscape and visual technical graphic information, to accompany and inform the LVIA. It was also referenced for guidance on the use of the camera and photography.

Zone of Theoretical Visibility (ZTV)

A computer-generated Zone of Theoretical Visibility (ZTV) was the first step in the assessment of effects.

The ZTV helps to inform judgements on the effects of the proposed development and provides information on:

- Where visibility is theoretically likely to occur;
- How many of the proposed wind turbines are likely to be visible;
- How much of the proposed wind turbines are likely to be visible (calculated to hub height and blade tip); and
- Extent and pattern of visibility.

The ZTV was calculated using Resoft Windfarm software on a Digital Terrain Model (DTM) derived from OS Terrain50 grid data, OS Terrain 5 grid data and Environment Agency Lidar Composite DTM 2m 2017.

ZTVs, to blade tip and hub height, covering the 20km radius study area was overlaid on an OS base map of 1:250,000 scale and plotted at A3 size at 1:150,000 scale for graphic interpretation.

In addition, ZTVs, to blade tip and hub height, covering the 10km radius study area was overlaid on an OS base map of 1:50,000 scale and plotted at A3 size at 1:75,000 scale for graphic interpretation.

A ZTV represents a theoretical area from which the proposed wind turbines or part of the proposed wind turbines may be seen. The ZTV, therefore, represents potential visibility.

The proposed development was plotted based on the hub height to 76.5m and 135m to blade tip above ordnance datum (AOD) assuming a viewer height above ground level of 2m. The ZTV was calculated considering earth curvature.

The ZTV was based on landform data only with any ridgelines, plateaux and valleys reflected in the extent of predicted visibility. The ZTV however does not take into account

subtle variations in landform (which the DTM data does not always reflect), local conditions such as built development or vegetation such as woodland, which can and does significantly reduce the area and extent of actual visibility.

The ZTV, therefore, represents a worst-case theoretical scenario with regard to the visibility of the proposed wind turbines. It does not convey the magnitude of impact or level of effect. However, it forms an appropriate starting point for undertaking the LVIA.

The ZTV is also a useful basis for selecting potential viewpoints, wireframes, and photomontage locations.

Photographs

Photographs included in the assessment were taken by an experienced chartered landscape architect when conducting the site survey.

The photographs were taken with a Nikon D610 camera with a Nikon AF-S Nikkor 50mm f/1.8g fixed lens.

The panoramic photographs were taken with the aid of a tripod with the head fixed on a vertical and horizontal axis also incorporating a spirit level to ensure 'level' photographs. The camera was positioned at 1.5m above ground level unless otherwise specified (such as a hedge, tree or other obstruction in the view).

The photographs were mainly taken in landscape format. Some of the close proximity views were taken in portrait format to ensure enough of the proposed wind turbines would be represented in the view.

GPS coordinates and height data (AOD), using a hand-held GPS device was taken at every photographic location and verified against UK Grid Reference Finder Web Page. A compass bearing was also taken to ensure the direction of view was correct. The horizontal field of view was also recorded.

A series of overlapping photographs were taken, with each photographic frame overlapping between 20-30% and stitched together using Adobe Photoshop software to provide panoramic views. These are 'cylindrical' projections. The photographs were then converted to 'planar' projection using a re-projection tool in Resoft Windfarm software.

Viewpoints

A number of viewpoints from which the proposed development may be visible were selected.

Viewpoint photography was undertaken in fine weather with good visibility in January 2025, and following pre-application advice from CC an additional photographic survey, was undertaken in fine weather with good visibility in October 2025 by an experienced and chartered landscape architect.

In addition, selected viewpoint photography from site surveys undertaken in May 2021 and April 2022, by an experienced and chartered landscape architect, was also used.

The viewpoints, agreed through consultation with CC, meet the following criteria:

- A balance of publicly accessible viewpoints from the main directions of view;
- Within the ZTVs;
- Provide a representative selection of views and receptors towards the proposed development, focussing on the most sensitive; and
- For receptors most likely to experience the greatest change of view.

The viewpoints have been selected through analysis of existing conditions, site survey and consultation. The viewpoints have been specifically sought out to represent potentially the most 'exposed' views of the proposed development.

All panoramic photographic viewpoints were interpreted as Type 1 Visualisations.

Type 1 Visualisations are "*reproduced at a size which aids clear understanding of the view and context, these simply show the extent of the site within the view, and annotate any key features within the view. Type 1 is the most basic form of visual representation with a focus on the baseline information*[31]."

For all Type 1 Visualisations:

- Final images are presented in drawing frames using Adobe In-Design and exported as a high resolution PDF file;
- All views are generated as panoramic images to capture the site and its context. They are presented as cylindrical panoramas of 90° Horizontal Field of View (HFoV) at A1 width with an image size of 820mm x 130mm;
- The extent of the 53.5° planar panorama is shown; and
- The extent of the central 50mm frame used to construct panorama is shown.

Wireframes

Wireframes are computer-generated line drawings, based on a DTM, which indicate an objective three-dimensional shape of the landform and proposed wind turbines.

The wireline drawings were produced using Resoft WindFarm (Version 4.2.5.1) computer software to generate a perspective view of the proposed wind turbines. The software used a 3D DTM model of the existing landscape within the study area derived from OS Terrain 50 grid data, OS Terrain 5 grid data and Environment Agency Lidar Composite DTM 2m 2017.

A 3D model of the proposed development was generated based on the wind turbine grid coordinates and specified turbine geometry, with the proposed wind turbines shown with one blade positioned upwards, orientated towards the viewer.

Using GPS grid coordinates and a specified direction and field of view, wireframe views of the proposed wind turbines within the existing landform were then generated within the Resoft WindFarm software by superimposing the models.

[31] Page 16, paragraph 4.1.1: The Landscape Institute 'Technical Guidance Note 06/19, Visual Representation of Development Proposals, 17th September 2019

In addition, other operational, consented and pending planning wind energy schemes within the study area are shown on the wireframe views.

Wireframes are illustrated as Type 1 Visualisations and include:

- Panoramic wireframe images to illustrate the proposed development and its context, including other operational, consented and pending planning wind energy schemes in the view. They are presented as cylindrical panoramas of 90° Horizontal Field of View (HFoV) at A1 width with an image size of 820mm x 130mm; and
- Panoramic wireframe images to illustrate the proposed development and its context, including other operational, consented and pending planning wind energy schemes in the view. They are presented as planar panoramas of 53.5° Horizontal Field of View (HFoV) at A1 width with an image size of 820mm x 260mm.

Photomontages

A photomontage is where a computer-rendered image of the proposed wind turbines are superimposed onto the existing photographic view.

The geometry of the overlain rendered image of the wind turbines matches as accurately as possible with the base photography.

The viewpoint location, height and direction of the view is identical, as is the horizontal field of view with the base photography.

Photomontages are a valuable tool for presenting an overall realistic impression of the proposed wind turbines in the landscape from selected agreed viewpoints.

The finished image is a representation of the likely appearance of the proposed wind turbines only.

The proposed wind turbines are orientated to appear consistent with any adjacent operational wind turbines (when perceived in the view) to give a more realistic interpretation of what the proposed development would look like when perceived in combination with adjacent operational wind turbines.

The photomontages show the proposed wind turbines only and did not show the ancillary development including access tracks, control building etc.

The proposed wind turbines are usually centred within the view, except when other features, such as cumulative wind energy schemes can be illustrated in the view.

Resoft WindFarm (Version 4.2.5.1) software was used to create the photomontages.

Panoramic images were imported into the software and geographic features matched with the corresponding coordinate of that feature on a base map. The two features were then aligned within the image. A wireline was also superimposed over the image to ensure the accuracy of the field of view and direction. Specific turbine models created from the manufacturer's designs were used to render the proposed wind turbines. Lighting conditions were created from the software lighting system to create realistic conditions based on the location and time/position of the sun. A perspective match was achieved between the computer-generated panorama and the photographs by iterative adjustments

until all major features were aligned satisfactorily. Their interpretation of view assumes good visibility.

The photomontages were interpreted as Type 4 Visualisations. With reference to the Landscape Institute TGN 06/19, Type 4 Visualisations "*require the use of equipment and processes which provide quantifiable verification data, such that they may be checked for accuracy*…"

Type 4 Visualisations show the location, size and degree of visibility of the proposed development, including architectural form and use of materials.

Photomontages were illustrated as:

- Planar panoramas of 53.5° Horizontal Field of View (HFoV) at A1 width with an image size of 820mm x 260mm; and
- Where relevant, other consented and pending planning wind energy schemes were shown on an additional photomontage, presented as 53.5° Horizontal Field of View (HFoV) at A1 width with an image size of 820mm x 260mm.

For all photomontages:

- There is an element of judgement. While the base data is factual (DTM/photograph) within established parameters, the finished image is a representation of the likely appearance of the proposed development;
- Each photograph incorporates the lighting and conditions as seen. The photomontage upon which it is based therefore only represents the appearance of the proposed wind turbine as it would have appeared at that time, on that day and at that time of year; and
- Final images are presented in drawing frames using Adobe In-Design and exported as a high resolution PDF file.

Presentation

All viewpoints are presented as:

- 90° baseline panorama photographic view - showing the extent of the 53.5° planar panorama and the extent of the central 50mm frame used to construct the panorama;
- 90° wireline view – illustrating the proposed development and any other cumulative wind energy schemes in the view;
- 53.5° wireline view – illustrating the proposed development and any other cumulative wind energy schemes in the view;
- 53.5° photomontage, illustrating the proposed development; and
- Where relevant, 53.5° photomontage, illustrating the proposed development in combination with other consented and pending planning wind energy schemes.

For all viewpoint representations, the following information is included:

- Figure number;
- Viewpoint number and description of viewpoint location;
- OS grid reference of viewpoint location;

- Viewpoint altitude;
- Direction of view;
- Distance to site;
- Horizontal field of view;
- Paper size;
- Projection (cylindrical or planar);
- Image enlargement (100% or 150%);
- Viewing recommendations (view flat at comfortable arm's length);
- Weather and lighting conditions (for photographic images only);
- Camera and lens details including camera height (for photographic images only);
- Date/time of photograph (for photographic images only); and
- Distance to cumulative wind energy schemes (53.5° wireline view only).