

Appendix E

Proposed Approach to Landscape and Visual Appraisal

E.1 The 'Proposed Approach to Landscape and Visual Appraisal' report was produced by LUC and was sent to relevant parties in October 2023 as set out in Section 4 of the report.

12508 Cotswold VIP Project – Proposed Approach to Landscape and Visual Appraisal

Introduction

The following provides an approach to the landscape and visual appraisal (LVA) for the proposed scheme to underground a section of overhead line within the Cotswolds Area of Outstanding Natural Beauty (AONB) and the planning application for the construction of two sealing end compounds (SEC) required to facilitate the transition from the overhead line to the underground cable.

The purpose of the note is to provide sufficient information about the project and proposed approach to the LVA to obtain feedback from the local authority officers and statutory bodies prior to the submission of the planning application in early 2024.

This LVA will be prepared by LUC on behalf of National Grid for the Cotswolds VIP project.

The purpose of the LVA is to consider effects on:

- the landscape as a resource in its own right (caused by changes to the constituent elements of the landscape, its specific aesthetic or perceptual qualities and the character of the landscape); and
- views and visual amenity as experienced by people (caused by changes in the appearance of the landscape).

Subject to EIA Screening, the undergrounding of the cables is being treated as permitted development, with the two SEC (and associated access) requiring planning permission. However, the LVA will consider the landscape and visual effects of all elements of the proposed project, which are set out in more detail below.

Study Area

Informed by the extent and scale of the two proposed SEC's and underground cabling in between, the LVA will comprise a 3km buffer on either side of the proposed project. The study area is shown on Figures 1 and 2.

Based on professional judgement and experience of assessing transmission infrastructure, effects on landscape character and visual amenity are unlikely to occur beyond the study area. However, more distant visual receptors and representative viewpoints beyond 3km may be considered where there is the potential for visual effects to arise beyond the study area. This could include highly sensitive viewpoints in nationally designated landscapes, or locations where the topography allows more far-reaching views of the proposed project. The location of these viewpoints will be informed by Zone of Theoretical Visibility (ZTV) mapping, which indicates the areas from which the proposed project would be theoretically visible, supplemented by field work and agreed with consultees. All viewpoints are currently proposed within 3km of the proposed scheme.

Existing Conditions

A desk-based review of existing information has been undertaken, including Ordnance Survey (OS) maps, the relevant Local Development Plans and National and Local Landscape Character Assessment. This has been supplemented by field work observations in August 2023. Additional field work will be carried out upon provision of feedback.

Landscape Baseline

The proposed project and most of the study area falls within the Cotswolds AONB. The LVA will consider the potential for the proposed project to affect the special qualities of the AONB as set out in the Cotswolds National Landscape Management Plan 2023-2025, and the overall purposes of the national designation.

The following will provide local planning policy over the study area:

- Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011-2031;
- Tewkesbury Borough Local Plan to 2011-2031;
- Cheltenham Plan; and
- Cotswold District Local Plan 2011-2031.

The principal sources of information concerning landscape character within the study area will be taken from:

- National Landscape Character Assessment, Natural England, 2012-2014;
- The Cotswolds AONB Landscape Character Assessment, LDA on behalf of Cotswolds AONB Partnership, 2004; and

- Gloucestershire Landscape Character Assessment, LDA on behalf of Gloucestershire County Council, 2006.

The site and wider study area are crossed by numerous public rights of way including the Cotswold Way National Trail and Wincombe Way long distance path and features areas of common land at Cleeve Common. Numerous ecological and heritage designations, both at a national and local scale are located within the study area which have the potential to influence the sensitivity of landscape and visual receptors.

Visual Baseline

There are a number of visual receptors in the study area including those listed below:

- Residents within nearby scattered farmsteads and properties aligning nearby roads/tracks;
- Residents within nearby settlements including Winchcombe, Cheltenham, Charlton Kings, Whittington and Dowdeswell;
- People engaged in outdoor recreation such as those using National Trails and other promoted routes, Public Rights of Way (PRoW) and National Cycle Network (NCN) routes, or those at hill summits and promoted viewpoints i.e. Cleeve Hill;
- People at promoted tourist destinations and recreation areas such as Cleeve Common, Belas Knap Long Barrow and those visiting local nature reserves including Dowdeswell Woods, Prestbury Hill Butterfly Reserve, Arle Grove Nature Reserve
- People engaged in other sporting activities, including those using Cleeve Hill Golf Club; and
- People travelling along the road network, including numerous minor roads crossing close to the site.

Table 1 - Preliminary LVA Viewpoints and Figures 1 and 2 set out a preliminary list of proposed representative viewpoints to be assessed in the LVA. The viewpoint list has been based upon the results of the Preliminary Screened Zones of Theoretical Visibility (Figures 1 and 2) and site visits.

Table 1 – Preliminary LVA Viewpoints

Viewpoint No.	Viewpoint Name	Grid Coordinates	Reason for Selection	Visualisation (Type 3)
1	Bridleway (AWB16) near Langley Hill Farm	400784, 228597	Representative of views experienced by users of elevated public rights of way to the west of Winchcombe and experienced by scattered farmsteads and residential properties on elevated land.	Yes
2	B4632	400832, 227422	Representative of views experienced by drivers along the B4632, users of the public right of way and those accessing Hollingsworth & Vose paper mill	No
3	Public right of way (AWB63)	401091, 226967	Representative of views experienced by users of the local footpath network and by those accessing residential properties.	No
4	Public right of way (AWB31)	401327, 226878	Representative of views experienced by users of the local footpath network.	No
5	Cotswold Way (AWB60) adjacent to Cordean Lane	401932, 226311	Representative of views experienced by walkers along the Cotswold Way.	Yes
6	Cotswold Way (AWB21) close to Woodbine House driveway	400874, 226232	Representative of views experienced by walkers along the Cotswold Way.	Yes

Viewpoint No.	Viewpoint Name	Grid Coordinates	Reason for Selection	Visualisation (Type 3)
7	Cleeve Hill Trig Point	398584, 226377	Representative of views experienced by visitors to Cleeve Common and its summit, as well as by walkers along the Cotswold Way.	Yes
8	Warden's Way (ASU4)	403939, 227246	Representative of views experienced by walkers along the Warden's Way and by residents within properties to the south-east of Winchcombe, including Sudeley Park Cottages and Sudeley Lodge.	Yes
9	Sudeley Castle / Windrush Way	403066, 227535	Representative of views experienced by walkers along the Windrush Way and by those visiting Sudeley Castle.	Yes
10	Belas Knap Long Barrow	402091, 225443	Representative of views experienced by visitors to the English Heritage visitor attraction and by walkers along the Cotswold Way and Winchcombe Way.	Yes
11	Cleeve Common / Trig Point	399691, 224597	Representative of views experienced by walkers across Cleeve Common.	Yes
12	Cleeve Common / Bridleway (ASM68)	400908, 223719	Representative of views experienced by walkers and horse riders across Cleeve Common.	Yes
13	Restricted Byway (ASM140)	399395, 223663	Representative of views experienced by walkers along the publicly accessible route.	Yes
14	Minor Road north-west of Whalley Farm	399849, 221516	Representative of views experienced by drivers along the minor road network.	No
15	Cotswold Way / Minor Road	399278, 221895	Representative of views experienced by walkers along the Cotswold Way and by drivers along the minor road network.	Yes
16	Minor Road north-east of Whittington	402182, 221606	Representative of views experienced by drivers along the minor road network.	No
17	Ham Road / Public Right of Way (KWH19)	399312, 220994	Representative of views experienced by drivers along the minor road network and by walkers along the local footpath network.	No
18	Cotswold Way / Ham Road (KWH21)	399037, 221038	Representative of views experienced by walkers along the Cotswold Way and by drivers along the minor road network.	No
19	Cotswold Way (KWH21/KWH19)	399064, 220660	Representative of views experienced by walkers along the Cotswold Way and the local footpath network.	No
20	Cotswold Way / Ravensgate Common	397831, 218403	Representative of views experienced by walkers along the Cotswold Way and by those visiting the common land.	Yes
21	Public Rights of Way (KDO26/KDO22)	399271, 218691	Representative of views experienced by walkers along the elevated local footpath network north of Gloucester Road (A436).	Yes

Viewpoint No.	Viewpoint Name	Grid Coordinates	Reason for Selection	Visualisation (Type 3)
22	Kilkenny Viewpoint and Nature Reserve	400345, 218458	Representative of views experienced by visitors to the viewpoint and nature reserve.	No
23	Public Right of Way (KD06) close to Upper Dowdeswell	400826, 219770	Representative of views experienced by walkers along the local footpath network and by residents within Upper and Lower Dowdeswell.	Yes

Methodology

Landscape and visual appraisals are distinct, but interconnected, processes and the assessment will describe potential landscape and visual effects separately. The LVA will consider potential effects on:

- Landscape as a resource in its own right (caused by changes to the constituent elements of the landscape, its specific aesthetic or perceptual qualities and the character of the landscape); and
- Views and visual amenity as experienced by people (caused by changes in the appearance of the landscape).

Legislation and Guidance

The LVA will be carried out in line with the following guidelines:

- Landscape Institute and the Institute of Environmental Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition ('GLVIA3');
- Landscape Institute (2019) Advice Note 01/11 Photography and photomontage in landscape and visual impact assessment; and
- Landscape Institute (2019) Technical Guidance Note 06/19 Visual Representation of Development Proposals.

Field Surveys

Further to the field work already undertaken during the summer, surveys will be undertaken during winter months to fully understand the maximum level of visibility as part of the landscape and visual baseline. Visual site surveys will be undertaken for agreed viewpoints, which represent a variety of receptor types and at a range of distances from the Project. Further field work will be undertaken within the wider study area. Surveys will include viewpoint photography to assist in the creation of visualisations/photomontages. Where possible all viewpoint photography will be captured when trees are not in leaf (i.e., a worst case). Photography may be carried out before leaf fall but that assessment will be informed by winter site visits.

Judging Levels of Effect

Judging the landscape and visual effects requires consideration of the nature of the receptor and the nature of the effect on the receptor. GLVIA3 states that the nature of receptors, commonly referred to as their sensitivity, should be assessed in terms of the susceptibility of the receptor to the type of change proposed, and the value attached to the receptor. Sensitivity judgements would be recorded as high, medium or low. The nature of the impact on each receptor, commonly referred to as its magnitude, should be assessed in terms of size and scale; geographical extent; duration and reversibility. Magnitude of change would be recorded as high, medium, low or negligible.

Judgements of sensitivity and magnitude are then combined to form a judgement regarding the overall level of effect. Levels of landscape or visual effect would be categorised as major, moderate, minor or negligible / no effect. The nature of effects would be described as positive (beneficial), neutral or negative (adverse).

This determination requires the application of professional judgement and experience to balance the many different variables which need to be considered, and which are given different weight according to site-specific and location-specific considerations. Judgements of the potential landscape and visual effects which may arise from the project, either individually or cumulatively when considered in combination with other existing, consented or proposed developments, are made on a case by case basis.

Cumulative Assessment

It has been assumed that there are no relevant cumulative developments of a similar type to that proposed within the study area and therefore no cumulative assessment is required as part of the LVA. However, this should be agreed with consultees prior to undertaking the LVA.

Existing developments form part of the existing baseline environment and will be considered in the primary assessment of the LVA.

Viewpoints and Visualisations

Table 1: Preliminary LVA Viewpoints and Figures 1 and 2 set out a list of indicative preliminary viewpoints to be used in the LVA. Photomontages will be used to consider and illustrate changes to views during operation of the project. Type 3 visualisations would be prepared in accordance with the Landscape Institute's TGN 06/19 Visual Representation of Development Proposals. A number of the viewpoint locations will be illustrated with visualisations as indicated in Table 1.

Proposed Project

The assessment of landscape and visual effects will be based on the following elements of proposed project:

- Temporary construction compounds, haul roads, access tracks, trenching, cut and fill of land and removal of woodland, trees and hedgerows;
- Construction of two SEC with associated infrastructure and access roads, one to the south of Postlip paper mill and the other south of Ham Lane;
- Undergrounding of the overhead lines between the two sealing end compounds, including removal of associated pylons; and
- Erection of additional pylon towers to accommodate transition from overhead line to undergrounding.

As previously stated, it should be recognised that the undergrounding of the cables and associated additional pylons to facilitate this, are classed as permitted development. Only the SEC with their associated temporary construction activities and permanent access roads require planning permission. However, the LVA will consider the landscape and visual effects of all elements of the proposed project.

Mitigation Measures

The mitigation measures will focus upon the following:

- Reinstatement of landscape features where they are lost through either temporary works or the undergrounding of cables; and
- Appropriate landscape mitigation surrounding the SEC to reduce potential visual effects as well as being in keeping with local landscape character;

Potential Effects

Potential landscape and visual effects that may arise during the construction and operation of the proposed project, and therefore included within the LVA, are noted below.

Landscape Effects

- Effects during construction on landscape features and landscape character;
- Effects during operation on landscape features and landscape character; and
- Effects on the special qualities of the Cotswold AONB.

Visual Effects

- Effects on the views and visual amenity of communities i.e. people within settlements and scattered communities;
- Effects on views experienced by walkers and cyclists using PRoWs, NCN routes, promoted tourist and/or recreational routes, hill summits, visitors to promoted viewpoints/tourist destinations and recreation areas; and
- Effects on people travelling along the road network.

Figures 1 and 2 – Preliminary Screened Zones of Theoretical Visibility

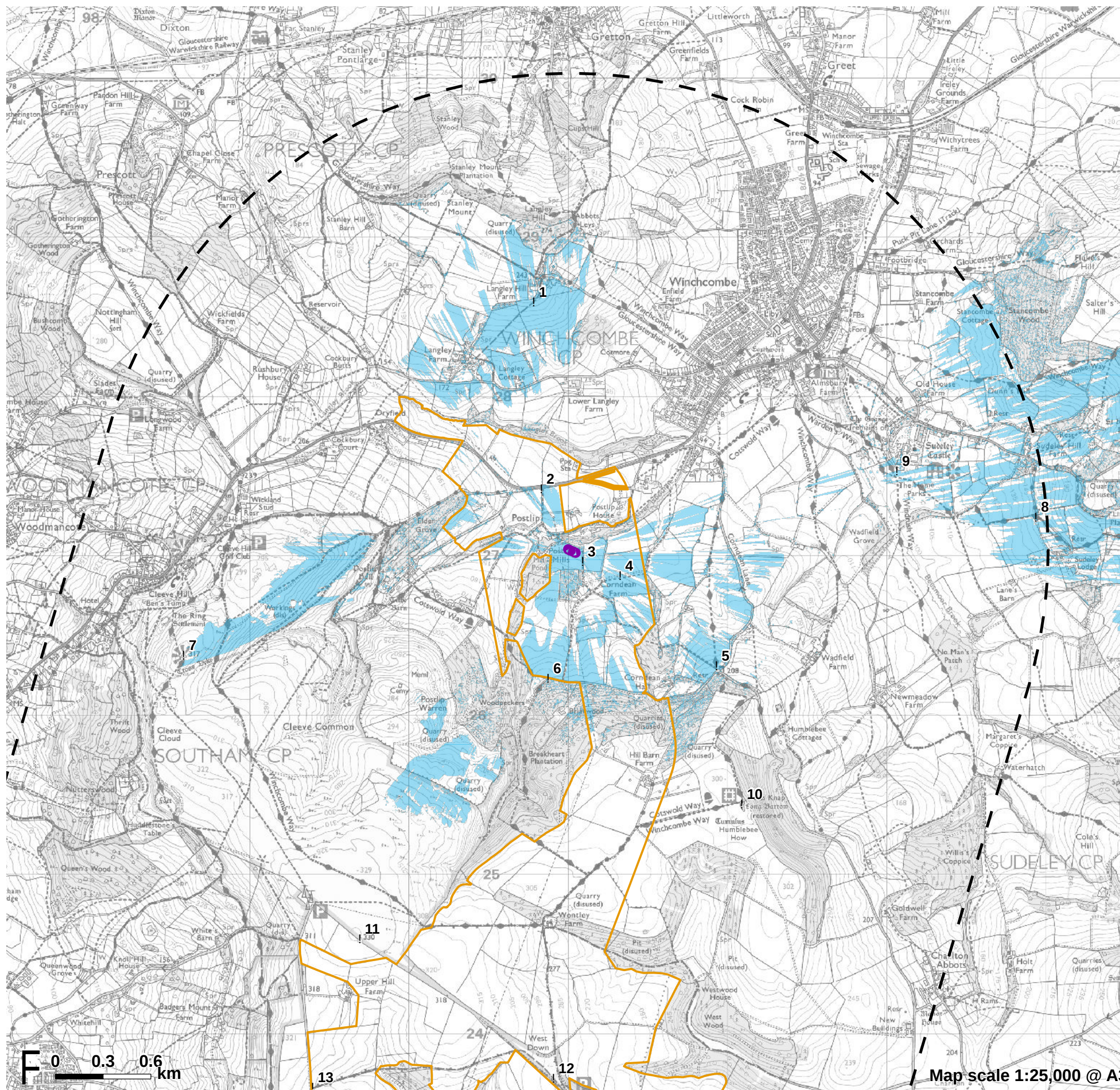


Figure 1: Preliminary Screened Zone of Theoretical Visibility for Northern Sealing End Compound (Maximum Height: 12.705m) with Viewpoints

- Survey boundary
 - Indicative 3km study area
 - Proposed location of scheme (Maximum height 12.705m)
 - Viewpoint
- | | |
|--|---------------------------------------|
| 1: Bridleway (AWB16) near Langley Hill Farm | 7: Cleeve Hill Trig Point |
| 2: B4632 | 8: Warden's Way (ASU4) |
| 3: Public right of way (AWB63) | 9: Sudeley Castle / Windrush Way |
| 4: Public right of way (AWB31) | 10: Belas Knap Long Barrow |
| 5: Cotswold Way (AWB60) adjacent to Cordean Lane | 11: Cleeve Common / Trig Point |
| 6: Cotswold Way (AWB21) close to Woodbine House driveway | 12: Cleeve Common / Bridleway (ASM68) |
| | 13: Restricted Byway (ASM140) |
- Zone of Theoretical Visibility (screened)**
- Gantry structure visible

The ZTV indicates the theoretical visibility of the development gantries in the north of the site at maximum height (12.705m) from a viewing height of 2m above ground level. The terrain model used was LiDAR Digital Surface Model (DSM) data (1m grid, obtained from the UK Government in September 2023). The DSM accounts for screening objects, including vegetation and buildings. Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.0.3 software

Figure 2: Preliminary Screened Zone of Theoretical Visibility for Southern Sealing End Compound (Maximum Height: 14.725m) with Viewpoints

Survey boundary

Indicative 3km study area

Proposed location of scheme (Maximum height 14.725m)

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Viewpoint

12: Cleeve Common / Bridleway (ASM68)

13: Restricted Byway (ASM140)

14: Minor Road north-west of Whalley Farm

15: Cotswold Way / Minor Road

16: Minor Road north-east of Whittington

17: Ham Road / Public Right of Way (KWH19)

18: Cotswold Way / Ham Road (KWH21)

19: Cotswold Way (KWH21/KWH19)

20: Cotswold Way / Ravensgate Common

21: Public Rights of Way (KDO26/KDO22)

22: Kilkenny Viewpoint and Nature Reserve

23: Public Right of Way (KD06) close to Upper Dowdeswell

Zone of Theoretical Visibility (screened)

Gantry structure visible

The ZTV indicates the theoretical visibility of the development gantries in the south of the site at maximum height (14.725m) from a viewing height of 2m above ground level. The terrain model used was LiDAR Digital Surface Model (DSM) data (1m grid, obtained from the UK Government in September 2023). The DSM accounts for screening objects, including vegetation and buildings. Earth curvature and atmospheric refraction have been taken into account. The ZTV was calculated using ArcPro 3.0.3 software

