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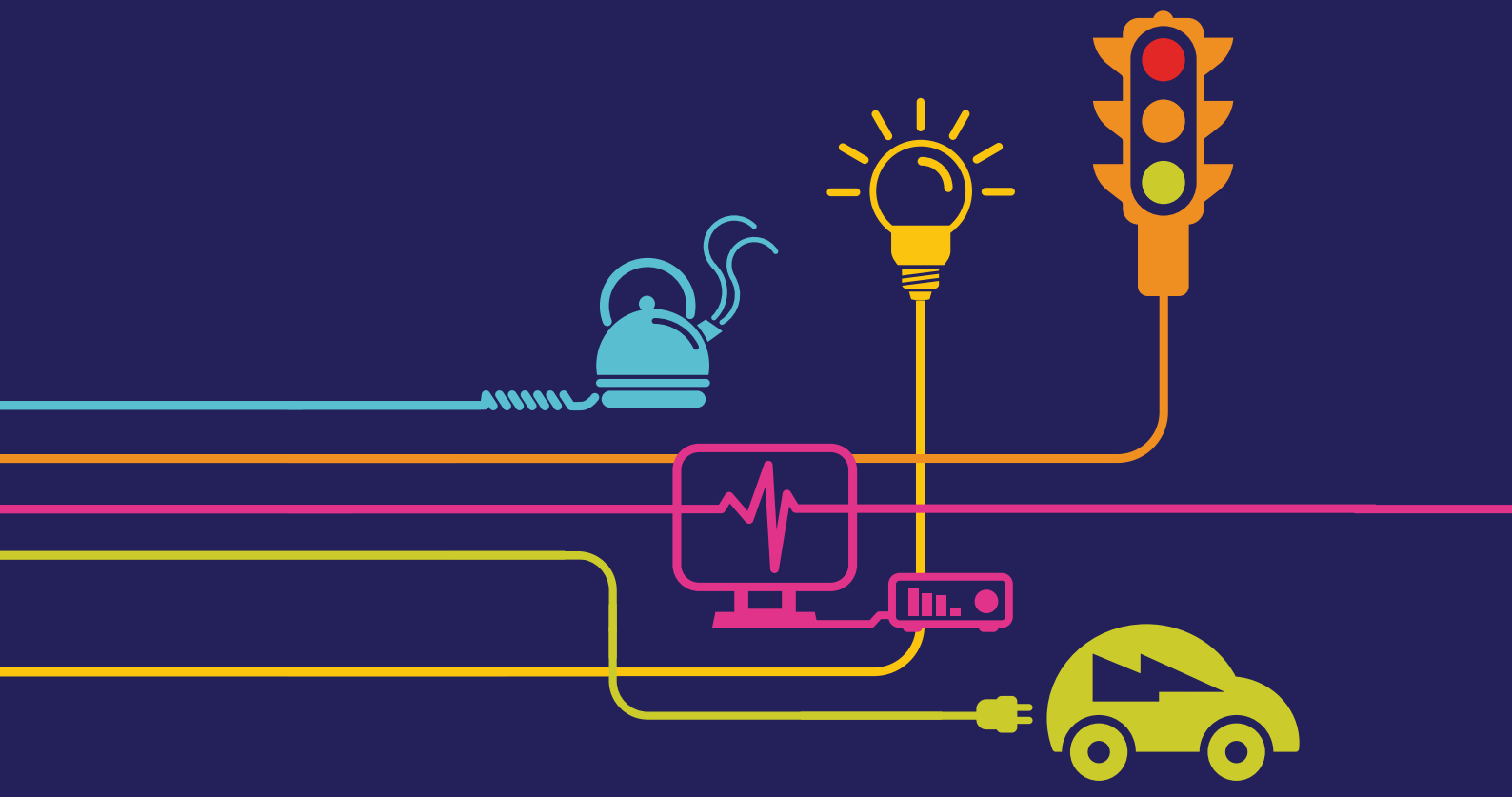
Environmental Statement Landscape

Hinkley Point C Connection Project

Regulation 5(2)(a) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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Hinkley Point C Connection Project

ENVIRONMENTAL STATEMENT – MAY 2014

VOLUME 5.6.1, CHAPTER 6 – LANDSCAPE

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FIGURES (VOLUME 5.6.2)

Figure 6.1: National Landscape Character Areas

Figure 6.2: Local Landscape Character Areas

Figure 6.3: Topography Route Overview Plan and Higher Detail Topography Insets

6 LANDSCAPE

6.1 Introduction

6.1.1 This chapter of the ES provides an assessment of the likely significant effects of the Proposed Development on landscape character.

6.1.2 There is a close relationship between effects on the landscape and effects on views. These two assessments are often reported together in environmental statements because of their close association. The Hinkley Point C Connection project is a linear development of approximately 60km and the landscape and visual effects are presented in separate chapters to distinguish between these effects. The 'Guidelines for Landscape and Visual Impact Assessment – Third Edition' (Ref. 6.1), Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA), 2013 (GLVIA3) emphasises the distinction between landscape effects and visual effects suggesting that they are considered in separate chapters.

6.1.3 This chapter considers the landscape effects of the Proposed Development. The assessment of visual effects is reported separately in **Volume 5.7.1**.

6.1.4 This chapter should be read with Figures in **Volume 5.6.2** as they assist the understanding of the descriptions and assessments presented in this chapter. The Figures relevant to this landscape assessment are listed in **Table 6.1** below.

Table 6.1 Relevant Figures in **Volume 5.6.2**

Figure Name	**Figure Number**
National Landscape Character Areas	Figures 6.1.1 - 6.1.2
Local Landscape Character Areas	Figures 6.2.1 - 6.2.5
Topography	Figures 6.3.1 - 6.3.6

6.1.5 Verified photomontages have been produced for viewpoints agreed with the Landscape and Views Thematic Group (Ref. 6.2) referred to in **Volume 5.7.1**. Photomontage viewpoints selected throughout Sections A to H are identified at **Volume 5.18.1, Figures 18.1.1 - 18.1.9.** Verified photomontages have been produced to illustrate the proposed 400kV overhead line, CSE compounds and Sandford Substation in the landscape and in selected views, and are included at **Volume 5.18.2**, **Figures 18.2.1 - 18.2.113** and at **Volume 5.18.3**, **Figures 18.3.1 - 18.3.5**.

6.1.6 This landscape assessment has identified and assessed the likely significant effects on the landscape of the Proposed Development if implemented. It has also identified and assessed the likely significant effects on landscape during construction and decommissioning of all components of the Hinkley Point C Connection project. This has included assessment of the removal of 132kV overhead lines.

6.1.7 Tree and hedgerow removal required to construct the Proposed Development and replacement planting, identified in the Arboricultural Impact Assessment (AIA) at **Volume 5.21.1, sections 7 - 9,** and at **Volume 5.21.3, Figures 21.2 and 21.3** , has been considered as part of this landscape assessment.

6.1.8 This landscape assessment has also considered embedded mitigation measures that National Grid can guarantee and will deliver in accordance with the Development Consent Order (DCO). These guaranteed embedded mitigation measures include replacement tree and hedgerow planting 'in-situ' following construction works, and mitigation planting proposed to minimise adverse landscape (and visual) effects resulting from site-specific development including proposed CSE compounds, the proposed Sandford Substation and proposed cables bridge option over the River Axe, and the cables bridge over Towerhead Brook. Likely effects on landscape of guaranteed 'in-situ' replacement planting and proposed mitigation planting (embedded mitigation) have been considered during operation in the short and medium-term and following establishment in the long-term at approximately fifteen years after completion.

6.1.9 The guaranteed embedded mitigation works identified will be secured via Requirements set out in the DCO. These guaranteed mitigation measures are separate to the enhancement measures proposed in the Hinkley Point C Connection project Off-site Planting and Enhancement Scheme (OSPES) at **Volumes 5.25**, which National Grid cannot guarantee because it relies on landowners' agreement and the local planning authorities' (LPA) actions. This landscape assessment does not take account of the OSPES. National Grid will offer to enter into an agreement with relevant LPA to fund the planting and enhancement works set out in the OSPES. The OSPES includes landscape works to further reduce the adverse residual effects on landscape character and views of the Proposed Development.

6.1.10 As explained in **Volume 5.3.1, section 3.2 and 3.7**, 'Sections' have been identified in the area through which the Proposed Development would be constructed, based on landscape character. These Sections were defined in consultation with the Landscape and Views Thematic Group (Ref. 6.2) and have been referenced A to H, including the proposed Hinkley Line Entries as Section H. **Volume 5.3.1** provides a detailed description of Sections and the works proposed in each Section. The assessment of visual effects, presented in **Volume 5.7.1,** has also been prepared referring to each of these Sections.

Project Engagement

EIA Scoping

6.1.11 As part of the scoping phase of the Environmental Impact Assessment (EIA), National Grid prepared a Scoping Report (April 2013) setting out the proposed approach to EIA in respect of the Proposed Development, including the identification of assessment methods for each of the EIA topics to be assessed.

6.1.12 The Scoping Opinion is provided at **Volume 5.5.2, Appendix 5A**. A summary of the Scoping Opinion representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 5.5.2, Appendix 5B**. A summary of the main Scoping Opinion representations received in relation to landscape are presented in the table below.

Table 6.2 Summary of Main Landscape (and Visual) Effects Scoping Representations Received

Representation	Response
The SoS welcomes the commitment to work with the Landscape and Views Thematic Group. The SoS recommends that the following aspects of the Visual Impact Assessment should be defined in discussion with the relevant local authorities, Natural England (NE) and stakeholders such as parish councils and the Mendip Hills AONB unit to ensure that the effects of the project are fully assessed: - Sensitive Receptors; and - Choice of viewpoints for photomontages.	Relevant stakeholders, including the Landscape and Views Thematic Group have been engaged in the location, design, assessment and mitigation of the Proposed Development. Opinion has been sought, and taken into account, on the sensitivity of receptors and choice of viewpoints. This is described in **Volume 5.7.1, section 7.3**.
The Applicant should be able to state clearly how the effects of existing projects are captured in the assessment of baseline conditions; it may be necessary to undertake additional work to establish the existing effects generated by the visual impacts of existing power lines to ensure that cumulative effects are fully addressed.	Existing projects and those where consent has been granted (Committed Development) are described in the 'Baseline Conditions' section of Chapters where relevant. Existing overhead lines are taken into account in the 'Baseline Conditions' section of all Chapters and in particular, determining the sensitivity of, and assessment of the effects upon, receptors in the Landscape and Visual Impact Assessment Chapters, **Volumes 5.6.1 and 5.7.1, sections 6.4 and 7.4**.
The SoS notes that detailed mitigation proposals will be factored into the ES. Residual effects should also be included. Where mitigation measures lead to a reduction in impacts, clear justification should be provided for the assessment of residual effects, including stated assumptions about heights that will be achieved by proposed planting over stated time frames.	Residual effects are described in all ES environmental topic Chapter (**Volumes 5.6 - 5.16**), including justification as to how guaranteed mitigation measures have resulted in a reduction of effects where appropriate. Details regarding planting proposals, and assumptions thereof, are provided in **Volume 5.6.1, section 6.7 and Volume 5.7.1, section 7.7**.
Dynamic views, especially along PROWs, need to be assessed.	Views along public rights of way, including footpaths, bridleways and restricted byways, and along roads have been assessed sequentially and this is detailed in **Volume 5.7.1, sections 7.3 - 7.5**.

Representation	Response
"Guidelines for Landscape and Visual Impact Assessment", published by the Landscape Institute and the Institute of Environmental Management and Assessment describe, in section 6, the use of "residential amenity assessment" to assess the local impacts of developments close to residential areas. The use of this methodology is appropriate for the proposed route near to Portbury given the scale of effect that is likely from the alternative blue route. In preparation for an assessment using this approach the "competent authority" is required to agree the detailed scope and approach including the viewpoints that will be used to gauge effects. We request that either the Planning Inspectorate, or North Somerset Council as the local specialist, sets out a process for a residential amenity assessment, using local knowledge and representation to agree a baseline.	National Grid has determined that a residential amenity assessment is not required in this instance. The visual assessment provided in **Volume 5.7.1, sections 7.3 - 7.5** considers effects on views identified within 1km of the proposed 400kV overhead line as well as effects in representative views between 1km and 3km, and important views beyond 3km of the proposed 400kV overhead line. This method has been agreed with the Landscape and Views Thematic Group (Ref 6.2) and has since been reviewed to ensure compliance with GLVIA3 (Ref 6.1).
It is recommended that a Landscape Strategy outlining the proposed mitigation measures should be provided as part of the application. It should be prepared and agreed with the Joint Councils and form part of the DCO commitments.	An Off-site Planting and Enhancement Scheme (OSPES), **Volume 5.25**, has been produced in consultation with the Landscape and Views Thematic Group (Ref 6.2).
Reference is made to accesses and construction traffic using the wider road network. The extent and significance of the landscape and visual effects should be assessed within the final ES, proposals for appropriate mitigation identified and the residual effects assessed.	Temporary construction effects, including those from construction traffic, on landscape and views are considered as part of the assessments in **Volumes 5.6.1 and 5.7.1, sections 6.5 and 7.5**.

Statutory Stage 4 Consultation

6.1.13 Statutory Stage 4 Consultation took place over a period of eight weeks between 3 September and 29 October 2013 in accordance with the Planning Act 2008. Statutory and non-statutory consultees and members of the public were included in the consultation. Various methods of consultation and engagement were used in accordance with the Statement of Community Consultation (SoCC) including letters, website, public exhibitions, publicity and advertising, inspection of documentation at selected locations and parish and town council briefings.

6.1.14 National Grid prepared a Preliminary Environmental Information Report (PEIR) which was publicised at this consultation stage. National Grid sought feedback on the environmental information presented in that report. Feedback received during Statutory Stage 4 Consultation was considered by National Grid and incorporated where relevant in the design of the project and its assessment and presentation in this ES.

6.1.15 A summary of the Statutory Stage 4 Consultation representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 6.1** (Consultation Report). A summary of the main Statutory Stage 4 Consultation representations received in relation to landscape is presented in the table below.

Table 6.3 Summary of Main Landscape Effects Statutory Stage 4 Consultation Representations Received

Representation	Response
The terminology used and the scoring of factors such as the magnitude, nature and reversibility of effects is inconsistent and requires clearer justification throughout the assessment.	The terminology used has been addressed in the assessments provided in the **Volumes 5.6.1 and 5.7.1**. Visual Assessment Tables are provided in **Volume 5.7.2, Appendix 7A - 7I** and provide detailed assessment of visual effects resulting from the Proposed Development anticipated in each receptor view. Visual Assessment Tables identify the sensitivity of each receptor, the baseline view, the predicted magnitude of effect and the significance of the visual effect (during construction and operation) for each receptor assessed.
Refer to missing photomontages. Where photomontages have been provided, the judgements and discussions leading to the relevant assessments seldom refer to the photomontages; consequently it is unclear how they have influenced the assessment at this stage.	Photomontages for all viewpoints agreed with the Landscape and Views Thematic Group during 2013 are provided in **Volume 5.18** and are included where appropriate in **Volumes 5.6.1 and 5.7.1**. Photomontages are provided for illustrative purposes. Assessment of effects on landscape and the assessment of visual effects was undertaken independently from production of photomontages. There are far more receptors and views assessed within **Volume 5.7.1** than there are photomontages.
There are many instances where it will be necessary for underground cables to cross watercourses such as the River Axe, Lox Yeo River and many smaller ditches/rhynes. It is currently unclear from the assessment how National Grid proposes to cross rivers and ditches.	The locations and designs for the cables bridge option over the River Axe and the cables bridge over Towerhead Brook; and other watercourse bridge crossings are described in **Volume 5.3.1,** and the effects are assessed in the relevant ES topic chapters.
A landscape and visual study area has still not been defined. The figures provided in support of Volumes 6 and 7 show 1km and 3km 'buffers', but no clear study area.	The study area for the landscape and visual assessments is discussed in the assessment methods provided in **Volumes 5.6.1 and 5.7.1**. The study area boundary is that drawn 3km from the LoD for the Proposed Development where there is potential for significant adverse effects. Other viewpoints further than 3km from the Proposed Development have been assessed where these are important or 'valued' viewpoints (as defined in **Volume 5.7.1**) and in other instances to demonstrate that effects from this greater distance would not be significant. The study area for landscape and visual

Representation	Response
	assessments is illustrated on ES Figures in **Volumes 5.6.3 and 5.7.3**.
There is no consistent assessment made of the value, susceptibility or sensitivity of the landscape at a local level. It is considered that the whole assessment on landscape character should be carried out at the more detailed local level. Whilst the scale of this task is appreciated, it is an inevitable product of the linear type and large scale of the proposed development.	Landscape value and susceptibility to change have been considered in each Section of the project study area through which the Proposed Development would be constructed. 'Sections' have been identified based on landscape character, specifically because they represent appropriate 'landscape units' at a scale appropriate for assessment. Sections were defined in consultation with the Landscape and Views Thematic Group. Sections are referenced A to H, including the proposed Hinkley Line Entries as Section H. Where landscape susceptibility to change and landscape value varies within a Section this has been identified. Landscape sensitivity within each Section is described taking account of landscape value and susceptibility to change. The landscape assessment identifies the local landscape character areas which would experience direct and indirect landscape effects within the 3km study area as a result of the Proposed Development. The magnitude of predicted landscape effects resulting from the Proposed Development and the significance of these effects are identified within each Section. Paragraph 1.17 of GLVIA3 states that *"...identifying significant effects stresses the need for an approach that is in proportion to the scale of the project that is being assessed and the nature of its likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional."* (Ref 6.1) The ES landscape assessment has been undertaken to an appropriate level of detail to identify the likely significant effects of the Proposed Development on landscape character.
The assessment makes little acknowledgement that an alignment (Option A) bordering the M5 has the potential to impact on a visitor's initial view of North Somerset, when southbound on the motorway	Motorist views (local resident, regular commuter through the area and tourists) travelling along the M5 motorway were assessed in relation to both Option A and Option B and are detailed in **Volume 5.7.1** and **Volume 5.7.2, Appendix 7I.**
The 'visual setting' of the Pixies Mound Scheduled Monument is not discussed in either the landscape or visual assessment, but has been assessed in the	The assessments of Landscape Effects, (**Volume 5.6.1**), Visual Effects (**Volume 5.7.1**) and Historic Environment (**Volume 5.11.1**) were cross-referenced. The assessment of the effect on the significance of heritage assets is presented in

Representation	Response
Historic Environment chapter. The conclusion in the Historic Environment chapter is that Pixies Mound would experience a moderate adverse significance of effect as a result of a low magnitude of changes to its very highly sensitive visual setting. Chapter 7 states that visual impacts to the public visiting Pixies Mound would be minor adverse. The receptors here are users of a permissive footpath accessing a Scheduled Monument. According to Table 7.2 such receptors should be assigned a high level of sensitivity. Therefore it is assumed that the magnitude of change predicted within the assessment is negligible."	**Volume 5.11.1** not **Volume 5.7.1**. Visual effects anticipated in views from the seating area adjacent Pixies Mound and from the permissive footpath providing access to Pixies Mound were assessed in **Volume 5.7.1** and are detailed in Visual Assessment Tables at **Volume 5.7.2, Appendix 7H**. Effects on the 'visual setting' of the Scheduled Monument were considered in **Volume 5.11.1**. Anticipated effects on views from Pixies Mound were set out in the ES Visual Assessment Tables and included judgements on sensitivity, magnitude of effect and the significance of the effect.
The residual landscape effects section is brief and accounts for the extremely limited mitigation measures proposed so far. Significant further work is recommended. Bristol City Council's representation relates specifically for the need for measures to ensure a quick and effective 'healing' of the landscape following construction of the 400kV and 132kV undergrounding routes to reduce the residual impact landscape and visual scar.	**Volume 5.7.1, section 7.7** details guaranteed embedded mitigation as part of the Proposed Development including site-specific landscape proposals at proposed CSE compounds and at Sandford Substation, for the River Axe cables bridge option and for the Towerhead Brook cables bridge; and in-situ replacement planting. Residual landscape and visual effects presented in the ES have taken into account guaranteed embedded mitigation. The assessment of adverse landscape and visual effects on the Mendip Hills AONB has taken into account tree and hedgerow losses and replacements. Assumptions on tree growth (i.e. what heights trees will be after 15 years) were identified in supporting document **Volume 5.21.1**, Arboricultural Impact Assessment (AIA). Supporting document **Volume 5.25.1**, OSPES proposes enhancement measures off-site and on-site where appropriate. The routing of the 400kV connection and 132kV underground cables has sought to avoid mature vegetation as far as possible. The ES identifies tree and hedgerow losses and replacements resulting from the Proposed Development in the AIA at **Volume 5.21.1**. Trees have been retained where possible and retained trees will be protected during proposed construction works.
It is important that on and off site	**Volume 5.25.1**, OSPES was developed through

Representation	Response
mitigation proposals are informed by consultation with the Local Authorities and Landscape Thematic Group. The Landscape Strategy proposed in the draft DCO should be prepared and agreed with the Councils prior to submission of the DCO application.	consultation with the Local Authorities and the Landscape and Views Thematic Group (Ref 6.2) during September to December 2013. The comments provided were used to produce a draft version which the Local Authorities were consulted upon during February 2014 as part of the ES Consultation prior to the DCO submission. The further comments from this consultation were used to add to the final submitted document where appropriate.
A number of PRoW are affected by the Proposed Development. However, there is limited information in relation to path management; alternative routing options; the impact on PRoW used as, and crossed by construction access routes; and the definition of what constitutes a short duration closure. This information should be submitted for formal consultation prior to the main DCO submission.	Effects on PRoW are detailed in **Volume 5.15.1** and a PRoW management plan detailing the affected PRoW and the management procedures is provided in **Volume 5.26.6.**

Draft ES and Supporting Documents

6.1.16 The Draft ES and a large number of the ES supporting documents were provided to a number of statutory and non-statutory bodies over a period of two weeks between 3 and 17 February 2014. This process of engagement (over and above that required by the statutory consultation process) was undertaken to provide an opportunity for these bodies to influence the assessment documents prior to their finalisation to accompany the DCO application.

6.1.17 A summary of the Draft ES representations received (relevant to EIA) and National Grid's responses are summarised at **Volume 5.5.2, Appendix 5C.** A summary of the main Draft ES representations received in relation to the landscape assessment are presented in the table below.

Table 6.4 Summary of the Main Landscape Draft ES Representations Received

Representation	Response
The Methodology has been substantially rewritten and, broadly speaking, now appears to be more in keeping with GLVIA3, which is welcomed. However, there are still inadequacies in the methodology (see 'Assessment' below) and the section on 'Assessing Significance of Landscape Effects' and in particular the assessment of sensitivity, is fundamentally different to that presented for consultation in the PEIR.	The method has been reviewed further with GLVIA3. The general basis of the method is the same.
At Para 5.42, GLVIA specifically states that the assessment of susceptibility of landscape receptors "should not be recorded as part of the landscape baseline, but should be considered as part of the assessment of effects." This should be addressed in the final ES.	This has been addressed in the final ES at **Volume 5.6.1, section 6.5**.

Representation	Response
The issue of the 'scale' of the landscape assessment was raised in the s42 response, but has only been partly addressed in the Draft ES. Assessment of landscape character is still made at too broad a scale rather than a finer grained local/site specific scale. Examples of this issue are at Polden Ridge and the Mendip	Sections A to H have been identified based on landscape character, and were defined in consultation with the Landscape and Views Thematic Group specifically because they represented appropriate 'landscape units' at a scale appropriate for assessment. The landscape assessment identifies the local landscape character areas which would experience landscape effects within the 3km study area as a result of the Proposed Development. As part of the assessment of landscape sensitivity at **Volume 6.5.1, section 6.5,** tables have been provided that summarise the sensitivity of the landscape in each Section with reference to the relevant LLCA, which would potentially be affected by a component or components of the Proposed Development. Where landscape susceptibility to the proposed change and landscape value varies within a Section, this has been identified. The magnitude of predicted landscape effects resulting from the Proposed Development and the significance of these effects are presented in Sections. Paragraph 1.17 of GLVIA3 states that "The Directive is clear that the emphasis is on the identification of likely significant environmental effects...identifying significant effects stresses the need for an approach that is in proportion to the scale of the project that is being assessed and the nature of its likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional." The ES landscape assessment has been undertaken to an appropriate level of detail to identify the likely significant effects of the Proposed Development on landscape character.

Representation	Response
The councils consider that the assessment made of susceptibility to change and consequent sensitivity of the landscape character of the Mendip Hills AONB is not robust. It is considered that the susceptibility of the landscape of the AONB to changes brought about by the proposed development is not 'Low' as stated. Applying the criteria in Table 6.5 to the entire AONB, a nationally valued landscape with a medium susceptibility should be ascribed a High sensitivity rating, not low as stated. It is noted that the AONB Landscape was ascribed a high sensitivity rating in the PEIR.	The AONB landscape is assessed as having a high sensitivity to the proposed installation of 400kV underground cables due to the susceptibility to change being medium. The final ES assesses that the AONB landscape has a medium sensitivity to the operation of proposed underground cables, due to the susceptibility to change being low and taking account of an amendment to **Volume 5.6.1, Table 6.7** referred to in the response provided below. The susceptibility to change judgement takes account of the specific development being assessed. For example, the AONB landscape would have a different susceptibility to change from the installation of proposed 400kV underground cables, compared to the long term operation of the proposed underground cables, which would comprise infrequent and low-height above ground structures (link box pillars). As part of the assessment of landscape sensitivity in the final ES at **Volume 5.6.1, section 6.5**, tables have been provided that summarise the sensitivity of the landscape in each Section with reference to the relevant LLCA, which would potentially be affected by a component or components of the Proposed Development.
The Mendip Hills AONB unit has welcomed the proposal to underground Section C of the route. There is concern, however, that the ES does not adequately assess the effects the construction phase and subsequent scarring of the landscape will have on the AONB, but has focused too much on the benefits that the removal of the 132Kv line will bring during the operational phase	The sensitivity of the landscape in the Mendip Hills AONB (Section C) to a new 400kV overhead line is assessed as being high; however underground cables are proposed as embedded mitigation. The AONB landscape is assessed as having a high sensitivity to the installation of the proposed 400kV underground cables; and a low sensitivity to the operation of the proposed 400kV underground cables, due to the landscape's low susceptibility to this change. **Volume 5.6.1, Table 6.7** in the final ES has been amended to include the following typical criteria when determining a landscape has medium sensitivity to the change proposed: The landscape has a low susceptibility to change and has national value. The final ES assesses that the AONB landscape has a medium sensitivity to the operation of the proposed 400kV underground cables to take account of the above amendment. Landscape sensitivity has been reviewed in the final ES.

Representation	Response
The assessment in Table 6.9 of 'Neutral' for the effect of the undergrounded cable may be achieved, but would be crucially dependent on the successful reinstatement of pastureland above the route. The details of the reinstatement proposals and management of these measures should be dealt with as a pre-commencement requirement of the DCO. It is considered that the overall assessment of Moderate Beneficial for the completed and operational scheme is not fully justified. The negative effects of construction, the scaring effect in the short to medium term and the permanent surface infrastructure Need to be carefully balanced against the benefit of removing the existing overhead line. This comment relates to the assessment of visual effects as well and landscape effects. It is therefore recommended that this assessment is revisited and that an overall assessment of 'Neutral' in the short to medium term and at best, 'Minor Beneficial' in the long term is more appropriate.	Reference to the effect being localised has been deleted. The proposed installation of 400kV underground cables in Section C is predicted to result in a moderate adverse magnitude of effect in accordance with the magnitude criteria in **Volume 5.6.1, Table 6.8**. Given the high sensitivity of the AONB landscape to this element of the Proposed development, and the moderate adverse magnitude of effect predicted, the significance of this effect would be moderate adverse for the short-term, in accordance with the significance criteria in **Volume 5.6.1, Table 6.9.**
Amalgamation and assessment of the effects of the CSEC and the undergrounded 132Kv lines in Section A into one item is considered to be an over simplification. These items require separate assessment as the significance of effects from each element is likely to be different, especially in terms of magnitude of change as a result of duration and effect of mitigation	The overall effect of the operation of the Proposed Development on landscape character has been assessed as being beneficial. The landscape assessment at **Volume 6.5.1, section 6.5** assesses the adverse indirect effects on the Mendip Hills AONB landscape that are predicted as a result of the Proposed Development in the setting of this AONB (in Sections B and D). The overall effect on the Mendip Hills AONB landscape has been assessed as being moderate beneficial as defined in **Volume 5.6.1, Table 6.9**. National Grid can guarantee the re-instatement of land, the implementation of in-situ replacement planting and management of this planting for 5 years via a requirement in the DCO.

Representation	Response
A “moderate to minor adverse” effect on landscape character is recorded in the northern part of Section B – whereas it is “moderate” elsewhere in Section B. Given that this northern part of Section B includes the CSE and is close to the AONB, the reasons for this judgment of reduced significance of effect are not made clear and are a source of concern. This should be revisited and amended or the reasons made clear in the Final ES.	Landscape effects have been assessed during the construction, operation, and decommissioning stages of the Proposed Development and have been reported separately in **Volume 5.6.1, section 6.5**. Adverse visual effects arising from the Proposed Development in the Mendip Hills AONB and in its setting in Sections B and D are identified in **Volume 5.7.1** and at **Volume 5.7.2, Appendix 7B, 7C and 7D**. The visual assessment is based on the method provided at **Volume 5.7.1, section 6.3**.
The ‘site specific’ mitigation proposals and the OSPES have been substantially amended in response to comments on the s42 consultation material. It is noted that the proposals for these two categories of mitigation are now closer to being appropriate and proportional to the effects predicted.	National Grid note the Joint Council’s response.
In the s42 response, the Joint Councils asserted the requirement for on-site mitigation measures at a number of ‘pinch points’ along the route (including Puriton Ridge, Mark, Tarnock, Tickenham and Nailsea) to address localised impacts including landscape and visual effects. This suggestion has not been addressed. The draft ES identifies a moderate significant effect in many of these locations. Notwithstanding the fact that the Councils view is that the effect is “major” in at least some of these instances, it is considered that it is reasonable to attempt to reduce the significance of effect to “minor” or better, by additional targeted, specific and deliverable mitigation. Such measures could not rely on landowner agreement and would need to be part of the DCO or / and deliverable localised compensation.	The significance of effect on many of these receptors is considered to be moderate adverse as the Proposed Development would include a partial alteration to the existing view and the introduction of prominent elements in the view. Views beyond the proposed 400kV overhead line would remain due to the nature of the Proposed Development. The Proposed Development would be seen in views for the long or medium-term with a moderate proportion of the view affected. There is some backgrounding in places which minimises the scale of change from the present situation. Refer to Visual Effects Tables at **Volume 5.7.2, Appendix 7A - 7H** for details of assessment. The OSPES at **Volume 5.25** includes enhancement measures to further reduce adverse visual effects of the Proposed Development. The funding for the OSPES takes account of the costs to negotiate with landowners, prepare schemes, implement them and monitor and maintain them for 5 years. The funding for the OSPES would be secured via a S106 agreement. The implementation of the OSPES will be subject of landowner agreement and the programme for implementation will be in the remit of the LPAs implementing it.

6.1.18 The themes of the representations received, relevant to the landscape assessment related to:

- study area (clarification of study area);
- receptor sensitivity (further detailed assessment of value, susceptibility to change and sensitivity);
- assessment judgements (better clarity and consistency of assessment and judgements);
- construction effects (relating to assessment of temporary overhead lines, access tracks, route widening and bellmouths);
- adverse effects of the proposed underground cables (relating to tree and hedgerow loss, replacement planting and reinstatement, mitigation planting, plant establishment, landscape characterisation, detailed design, link boxes, future access and maintenance, construction impact and width of the cable swathe);
- tree and hedgerow loss (further details of tree and hedgerow loss required to assess effects on landscape and views);
- cumulative effects of existing infrastructure resulting in a change to landscape character;
- effects on PRoW (relating to sequential effects of the Proposed Development and cumulative effects of construction);
- South of Mendip Hills CSE compound (relating to siting and significance of effect on views);
- river crossings (lack of information relating to the underground cable route crossing water bodies);
- sequential views from long distance routes (more detailed assessment required);
- Section F Route Options (relating to interpretation of summary of effects table, clarification of effects, robustness of assessment and tree loss);
- residual effects;
- T-pylon vs Lattice pylon;
- visual effects on receptors at Mark, Badgworth, Biddisham and Tarnock (requirements for mitigation measures and contribution to GI Strategy objectives);
- visual effects on Cadbury Camp (request for the route to be closer to the F Route or the colour of pylons to be more muted);
- method of landscape assessment, with particular reference to how susceptibility to change and landscape sensitivity are determined;
- the ‘scale’ of the landscape assessment;
- judgements of potential effects on the Mendip Hills AONB landscape during the construction and the operation of the Proposed Development; and
- consideration of the effects on the special qualities of the Mendip Hills AONB.

6.1.19 The above key themes have been considered during the preparation of this landscape assessment. Additional information or clarification of project detail requested in the Statutory Stage 4 Consultation representations received is presented in this chapter and or in other relevant ES chapters where relevant and appropriate.

Thematic Group Meetings

6.1.20 Since 2011 and throughout the undertaking of the EIA, National Grid Electricity Transmission plc (National Grid) has engaged with consultees with an interest in potential landscape (and visual) effects. These consultees were members of the Landscape and Views Thematic Group (Ref. 6.2). During consultation with the Landscape and Views Thematic Group (Ref. 6.2) issues were raised regarding landscape including:

- careful consideration of the Mendip Hills Area of Outstanding Natural Beauty (AONB) and its setting as well as its value for recreation and tourism;
- consideration of the indirect effects on the Quantock Hills AONB;
- consideration of the Somerset Levels and Moors landscape which has local and regional value; and
- consideration of the ridge landscapes and isolated hills which provide a backdrop to the Somerset Levels and Moors and provide vantage points with extensive views across the surrounding landscape.

6.1.21 Meetings during 2012 included discussions on the method for the landscape and visual appraisal work required as part of identifying a draft alignment for the proposed Bridgwater to Seabank connection. The method was agreed with the Landscape and Views Thematic Group (Ref. 6.2) and the findings of the appraisal work were discussed with the Thematic Group and later summarised and presented in the Connection Options Report (COR) (Ref. 6.3), which identified a draft alignment for consultation in late 2012.

6.1.22 During the first part of 2013, discussions during Landscape and Views Thematic Group meetings predominantly focussed on the method for landscape and visual assessment to be included in the EIA Scoping Report 2013 (Ref. 6.4); the selection of representative viewpoints between 1 and 3km of the Proposed Development; the identification of viewpoints beyond 3km of the Proposed Development; and the selection of photomontage viewpoints throughout Sections A to H of the Proposed Development.

6.1.1 During the preparation of the EIA Scoping Report 2013 (Ref. 6.4), National Grid provided statutory consultees with a copy of the draft method for both landscape and visual assessment, for their review and comment. The representations received in relation to the draft method were discussed with the Thematic Group (Ref. 6.2) and were taken into account when finalising the draft scope of the assessments presented in the EIA Scoping Report 2013 (Ref. 6.4). Organisations that were consulted include:

- Natural England (NE);
- West Somerset Council (WSC);
- Sedgemoor District Council (SDC);
- Somerset County Council (SCC);
- North Somerset Council (NSC);

- Bristol City Council (BCC);
- South Gloucestershire Council (SGC); and
- Mendip Hills AONB Unit.

6.1.23 Following Statutory Stage 4 Consultation with the Landscape and Views Thematic Group (Ref. 6.2) has continued throughout the EIA.

Other Engagement

6.1.24 Public consultation via Local Community Forums was undertaken during spring 2012 to obtain specific inputs based on local knowledge and values for National Grid to consider when developing and assessing the potential alignments. A period of public engagement with consultees and the local community also occurred in June and July 2012. The information gathered at the community forums, which was recorded on a map and an associated gazetteer, was added to the baseline data to inform the identification of routes and the Options Appraisal, which was reported in the COR (Ref. 6.3) in November 2012. Further details on the community forum process and the associated mapping exercise are recorded in Appendix J of the Stage 2 'Bridgwater to Seabank Feedback Report, summer 2012.

6.1.25 In addition, meetings have taken place with local authorities, statutory consultees and landowners to discuss:

- proposed landscape mitigation at the proposed Sandford Substation including the realignment of The Strawberry Line (local authority);
- the effect of the proposed 400kV underground cable construction work and the long term effects of the Proposed Development on the AONB landscape (Mendip Hills Area of Outstanding Natural Beauty (AONB) Unit);
- the landscape mitigation proposals relating to the River Axe cables bridge crossing option (Environment Agency), and
- the landscape mitigation proposals relating to the River Axe cables bridge crossing option and the Towerhead Brook cables bridge, and mitigation proposals for the Bridgwater Tee CSE compounds (local landowners).

6.2 Policy and Legislation

6.2.1 This part of the chapter provides a summary of planning policy relevant to landscape (and views). It includes a review of national and local planning policy relevant to the Hinkley Point C Connection project and demonstrates how the provisions contained within planning policy have been met.

National Policy

National Policy Statements

6.2.2 The assessment of potential effects has been made with specific reference to relevant NPSs; these form the principal policy framework within which decisions on Nationally Significant Infrastructure Projects (NSIP) are made.

6.2.3 The principal guidance for examination of the application is that provided by Overarching National Policy Statement for Energy (EN-1) and National Policy Statement for Electricity Networks Infrastructure (EN-5).

6.2.4 NPS EN-1 is directly relevant to this and the relevant sections and how they have been addressed are summarised in **Table 6.5**.

Table 6.5 Summary of NPS Requirements Relevant to Landscape Assessment

Para.	Requirement	ES Section	Compliance Assessment
EN-1			
5.9.5	The applicant should carry out a landscape and visual assessment and report it in the ES.	**Volumes 5.6.1** and **5.7.1**	Landscape and visual assessments have been carried out and are provided in the ES in separate chapters to distinguish between these effects. There is a close relationship between effects on views and effects on the landscape. These two assessments are often reported together in environmental statements because of their close association. The 'Guidelines for Landscape and Visual Impact Assessment – Third Edition', Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA), 2013 (GLVIA3) emphasises the distinction between landscape effects and visual effects suggesting that they are considered in separate chapters.
5.9.5	The Landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project.	**Volume 5.6.1, section 6.4** and **6.5**	National and local level landscape character assessments have been reviewed as part of the desk study to determine the landscape and visual baseline for the landscape and visual assessments. This review has been supplemented with extensive field survey to identify the landscape and visual baseline within each Section of the study area which have the potential to be affected by the Proposed Development.

Para.	Requirement	ES Section	Compliance Assessment
5.9.5	The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales.	**Volume 5.6.1, section 6.2**	A summary of the planning policy relevant to landscape and views is provided. It includes a review of national and local planning policy relevant to the Hinkley Point C Connection project and demonstrates how the provisions contained within planning policy have been met.
5.9.6	The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character.	**Volume 5.6,1, section 6.5**	An assessment of the effects on landscape character and features (in each Section of the study area) has been undertaken for the construction, operation and decommissioning stages of the Proposed Development.
5.9.7	The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation.	**Volume 5.7.1, section 7.5**	The method used assesses the visual effects (visibility) including the size and scale (conspicuousness) of the Proposed Development (project) on views and visual amenity during construction, operation and decommissioning. Visual effects are assessed in each Section of the study area. The effects of light pollution on local amenity are assessed during construction of the Proposed Development. During operation lighting is not required and would only be used if maintenance works are required at night.

Para.	Requirement	ES Section	Compliance Assessment
5.9.8	Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape.	**Volume 5.6.1, section 6.5**	Landscape value (including landscape quality) has been assessed as part of establishing the baseline environment for the landscape assessment. The 'Guidelines for Landscape and Visual Impact Assessment – Third Edition', Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA), 2013 (GLVIA3) requires that the 'susceptibility to change' of the landscape from the Proposed Development is assessed, and presented as part of the assessment of effects. The susceptibility to change of a landscape as defined by GLVIA3 refers to the ability of the landscape to accommodate the Proposed Development without undue consequences for the maintenance of the baseline situation. Judgments on landscape value and susceptibility to change are combined to determine landscape sensitivity. Landscape sensitivity and the judgement on the magnitude of effect on landscape are combined to determine the significance of the effect. This has been undertaken in the landscape assessment provided at **Volume 5.6.1, section 6.5**.

Para.	Requirement	ES Section	Compliance Assessment
5.9.8	Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.	Route options are described in **Volume 5.2.1;** embedded mitigation by design for landscape is described in **Volume 5.6.1, section 6.7**	Careful consideration has been given to the effect of the Proposed Development on landscape and views when assessing potential route alignments for the proposed Hinkley Point C Connection project. In line with requirements set out in EN-5 which refer to The Holford Rules, The Holford Rules were considered when determining and assessing draft route alignments in order to avoid or minimise effects on the landscape and visual receptors and the most valuable landscape features and character areas, and was a consideration in the decision to propose underground cables through the Mendip Hills AONB in Section C. The effects of different pylon types (including the standard steel lattice pylon, the low height steel lattice pylon and the T-pylon) on views on the selected route alignment was also assessed and has influenced the decision to propose the new 400kV overhead line supported by the T-pylon along the majority of the proposed overhead line route.

Para.	Requirement	ES Section	Compliance Assessment
5.9.10	National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Nevertheless, the IPC may grant development consent in these areas in exceptional circumstances. consideration of such applications should include an assessment of: ● the need for the development, including in terms of national considerations, and the impact of consenting or not consenting upon the local economy; ● the cost of, and scope for, developing elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives set out in Section 4.4; and ● any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated	A summary of the needs case is provided in **Volume 5.2,1;** route and connection options considered are also summarised in **Volume 5.2.1;** the potential effects and mitigation of effects on the AONB landscape are described in **Volume 5.6.1, section 6.5**	The landscape assessment provides an assessment of the effects on the AONB landscape and its setting during the construction, operation and decommissioning of the Proposed Development. An assessment has also been undertaken to determine predicted effects on the 'special qualities' of the Mendip Hills AONB designation. Mitigation proposals to minimise adverse effects of the Proposed Development on the landscape including the AONB landscape and its setting are provided at **Volume 5.6.1, section 6.7**.

Para.	Requirement	ES Section	Compliance Assessment
5.9.14	Where a local development document in England or a local development plan in Wales has policies based on landscape character assessment, these should be paid particular attention.	**Volume 5.6.1, section 6.2**	A summary of the planning policy relevant to landscape is provided. It includes a review of local planning policy relevant to the Hinkley Point C Connection project and demonstrates how the provisions contained within planning policy have been met.
5.9.16	In reaching a judgment, the IPC should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC considers reasonable.	**Volume 5.6.1, section 6.5**	Temporary adverse landscape effects are identified in the landscape assessment and predominantly relate to effects during construction. As part of determining the magnitude of a landscape effect, consideration has been given to the duration and the reversibility of the effect. This is in accordance with GLVIA3, and the method at **Volume 5.6, section 6.3**, and is identified where relevant in the assessment at **section 6.5**.
5.9.22	Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.	Embedded mitigation by design for reducing adverse landscape and visual effects is described in the Design and Access Statement at **Volume 7.2.** Landscape mitigation proposals are described at **Volume 5.6.1, section 6.7** and **Volume 5.7.1, section 7.7**	Planting is proposed to mitigate adverse landscape and visual effects of new site-specific infrastructure comprising CSE compounds, substations and cables bridges. It is feasible and desirable to seek to screen views of site-specific infrastructure by planting trees or shrubs close to these structures in order to reduce adverse effects on landscape and views. These individual structures are lower than pylons, less frequent and often occupy a larger area meaning groups of trees would not look out of character and would screen views of the lower elevations of such infrastructure over time.

Para.	Requirement	ES Section	Compliance Assessment
5.9.23	Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.	OSPES, **Volume 5.25**	The OSPES details the landscape enhancement scheme, comprising off-site tree and hedgerow planting to further reduce landscape and visual impacts (referred to as effects) and is proposed to soften the effects of the new overhead line and provide screening. National Grid cannot guarantee the OSPES planting because it relies on landowners' agreement and the local planning authorities' actions.
EN-5			
Landscape & Visual			
2.8.6	Holford Rules	**Volume 5.2.1**	**Volume 5.2.1** summarises the Route Options reports which included consideration of Holford Rules. The rules are also considered in the assessments for Landscape and Visual Effects at **Volume 5.6.1, section 6.5** and **Volume 5.7.1, section 7.5**.
2.8.10	The main opportunities for mitigating potential adverse landscape and visual impacts of electricity networks infrastructure are:	These are described in the mitigation sections of **Volume 5.6.1** at **section 6.7 and Volume 5.7.1** at **section 7.8.**	Careful consideration has been given to the effect of the Proposed Development on landscape and views when assessing potential route alignments for the proposed Hinkley Point C Connection project. The effects of different pylon types (including the standard steel lattice pylon, the low height steel lattice pylon and the T-pylon) on landscape and views on the selected route alignment was also assessed in the Pylon Design Options Report and has influenced the decision to propose the new 400kV overhead line supported by the T-pylon along the majority of the proposed overhead line route. The Proposed Development includes a new overhead line using the approximate route of an existing line for
2.8.10	Consideration of network reinforcement options (where alternatives exist) which may allow improvements to an existing line rather than the building of an entirely new line	**Volume 5.2.1** summarises the Needs Case (including the option of network reinforcement)	

Para.	Requirement	ES Section	Compliance Assessment
2.8.10	Selection of the most suitable type and design of support structure (i.e. different lattice tower types, use of wooden poles etc.) in order to minimise the overall visual impact on the landscape.	The Pylon Design Options report is summarised in **Volume 5.2.1** Mitigation by design is also addressed in the mitigation section of **Volume 5.6.1, section 6.7 and Volume 5.7.1, section 7.8**	the majority of its length. The support type has been selected particularly because its height is closer to the height of the supports on the existing line to be removed than other supports that could be used and will minimise overall landscape and visual effects.
2.8.11	Landscape schemes, comprising off-site tree and hedgerow planting are sometimes used for larger new overhead line projects to mitigate potential landscape and visual impacts, softening the effect of a new above ground line whilst providing some screening from important visual receptors. These can only be implemented with the agreement of the relevant landowner(s) and advice from the relevant statutory advisor may also be needed	These are provided in the OSPES at **Volume 5.25**	The OSPES details the landscape enhancement scheme, comprising off-site tree and hedgerow planting to further reduce landscape and visual impacts (referred to as effects) and is proposed to soften the effects of the new overhead line and provide screening. National Grid cannot guarantee the OSPES planting because it relies on landowners' agreement and the local planning authorities' actions.

Para.	Requirement	ES Section	Compliance Assessment
2.8.11	Screening, comprising localised planting in the immediate vicinity of residential properties and principal viewpoints can also help to screen or soften the effect of the line, reducing the visual impact from a particular receptor.	OSPES at **Volume 5.25**; site-specific planting provided in **Volume 5.6.1, section 6.7** and **Volume 5.7.1, section 7.7.**	The OSPES proposals include some screening, comprising localised planting in the vicinity of residential properties and principal viewpoints to help to screen or soften the effect of the Proposed Development, further reducing the visual impact (referred to as effects) from particular receptors. Localised on-site specific planting for Sandford Substation, CSE compounds, a cables bridge option over the River Axe and the permanent cables bridge over Towerhead Brook are proposed in order to screen and soften the visual effect on receptor views and to reduce the influence of proposed electrical infrastructure and bridges in the landscape.

NPPF

6.2.5 Whilst the NPSs are the primary policy documents for examination of applications for development consent, the NPPF remains relevant. Relevant sections of NPPF are summarised below:

7. Requiring Good Design (paragraphs 56 – 68)

6.2.6 The Government emphasises the importance of the design of the built environment. The NPPF outlines that good design is a key aspect of sustainable development and should contribute to making places better for people. The NPPF lists qualities that developments should achieve, including that it:

- functions well and adds to the overall quality of the area;
- establishes a strong sense of place;
- optimises the potential of the site to accommodate development;
- responds to local character and history, and reflects the identity of local surroundings and materials, whilst not preventing or discouraging appropriate innovation;
- creates safe and accessible environments; and
- is visually attractive as a result of good architecture and appropriate landscaping.

6.2.7 The design of the Proposed Development has been a fundamental aspect in limiting the effect of the Proposed Development, particularly in terms of landscape and visual effects. The use of the T-pylon to support the majority of the proposed 400kV overhead line, proposing 400kV underground cables to avoid the

introduction of a new 400kV overhead line in the Mendip Hills AONB, replacing the F Route, and the route itself, have all been determined with good design in mind.

11. Conserving and Enhancing the Natural Environment (paragraphs 109 – 125)

6.2.8 The NPPF identifies that it is important that developments enhance the natural and local environment by protecting and enhancing valued landscapes, geological conservation interests and soils, recognising the wider benefits of ecosystems, minimising the impacts on biodiversity and increasing the net gains in biodiversity, and preventing risk from unacceptable levels of effects on soil, air, water, noise pollution and land instability.

6.2.9 Key landscape characteristics have been identified during desk study and field based assessment, and have formed an integral part of this landscape assessment, minimising unavoidable effects through the use of appropriate mitigation measures.

Planning Practice Guidance

6.2.10 The online NPPF Planning Practice Guidance (launched March 2014), provides technical guidance for the policies described in the NPPF. The Planning Practice Guidance for NPPF policies relevant to Landscape Assessment (NPPF 7 and 11) mirror those detailed in NPS EN-1 and EN-5 requirements, compliance with which is outlined in **Table 6.5**.

Local Planning Policy

6.2.11 NSIPs are not subject to s38(6) of the Planning and Compulsory Purchase Act 2004, which states that the determination of planning applications must be made in accordance with a local development plan, unless material considerations indicate otherwise. However, local plan policies are relevant where they inform the assessment of potential effects.

6.2.12 Local plan policies relevant to landscape (and views) in relation to the proposed Bridgwater to Seabank Connection and the proposed Hinkley Line Entries are summarised below:

Sections A - G: Bridgwater to Seabank Connection

6.2.13 The proposed Bridgwater to Seabank Connection between Bridgwater Substation in the south and Seabank Substation in the north is in the following local authority areas: Sedgemoor District Council, North Somerset Council, Bristol City Council, and South Gloucestershire Council.

6.2.14 Local policies relevant to landscape (and views) and the Proposed Development are as follows:

- Sedgemoor District Council Core Strategy 2006-2027, and Saved Policies from the Sedgemoor District Local Plan (1991-2011):
  - D14 – Natural Environment;
  - P6 – Countryside; and
  - CNE4 – Green Wedges, Green Edge, or Strategic Gap.

- Sedgemoor Landscape Assessment and Countryside Design Summary Supplementary Planning Document (SPD).
- North Somerset Council, Core Strategy - Version following High Court Judgement (March 2013) and Relevant Supplementary Planning Documents and Guidance:
    - CS4 – Nature Conservation;
    - CS5 – Landscape and a Historic Environment;
    - ECH/8 – Mendip Hills AONB; and
    - ECH/9 – Forest of Avon.
- North Somerset Landscape Character Area Supplementary Planning Document (SPD).
- Bristol City Council, Saved Policies from the 1997 adopted Local Plan:
    - NE02 – Landscape Features; and
    - NE11– New Development Natural Environment Considerations.
- South Gloucestershire Local Plan (2006) (Saved Policies):
    - L1 – Landscape Protection and Enhancement.

6.2.15 The key themes running through these policies relate to the protection and enhancement of the natural environment and landscape features. A number of policies including policies ECH/8 and ECH/9 from the North Somerset Core Strategy and the North Somerset Landscape Character Area SPD relate to specific landscape character areas and provide a description of and identify the features that contribute to their characters.

6.2.16 The sensitivity of each landscape character area and landscape features which contribute towards landscape character have been considered. These features are included in the baseline for this chapter. Consideration of their sensitivity as identified in the local policies above has also been considered.

Section H: Hinkley Line Entries

6.2.17 The proposed Hinkley Line Entries at Hinkley Point are in the administrative area of West Somerset District Council. West Somerset borders Sedgemoor District approximately 2km south of the proposed Hinkley Line Entries and borders the district of Taunton Deane on the west side of the Quantock Hills AONB.

6.2.18 West Somerset District Council is in the process of producing a new Local Plan. ‘Saved’ policies in the 2006 West Somerset District Local Plan relevant to landscape and the Proposed Development are:

- West Somerset District Council's Local Plan:
  - LC/3 - Landscape Character;
  - TW/1 - Trees and Woodland Protection; and
  - TW/2 - Hedgerows.

6.2.19 Policy LC/3 seeks to protect the quality and distinctive local landscape character. Important landscape features identified in the policy or in national or local landscape character assessments, have been incorporated into the baseline for this assessment.

6.2.20 Policies TW/1 and TW/2 relate to specific landscape features which are to be protected where possible. Where this is not possible, in-situ hedgerow replacement planting would be undertaken as described in section 6.7 of this chapter.

Policy Conclusions

6.2.21 As described above, there are a number of relevant national and local planning policies which have guided technical design and route options of the Proposed Development, through the identification of specific landscape character areas and features.

6.3 Method

6.3.1 This part of the chapter sets out the approach and method used to provide an assessment of effects on landscape character as a result of the Proposed Development during the operation, construction and decommissioning stages of the Proposed Development.

6.3.2 Operational effects are assessed on completion of the Proposed Development (during the opening year and to year 15) and residual operational effects are assessed as those which would occur from the Proposed Development fifteen years after completion, taking account of the establishment of guaranteed mitigation measures comprising; planting replacement trees, tree groups and hedges 'in-situ'; and new planting of trees, tree groups and hedges with new site-specific infrastructure (following construction).

6.3.3 The assessment of the likely significant effects on landscape character of the Proposed Development has been undertaken by Chartered Landscape Architects from The Environment Partnership (TEP) Ltd and Applied Landscape Design (ALD) Ltd who are experienced in landscape assessment. The method for this landscape assessment is based on GLVIA3 (Ref. 6.1) guidance, which as stated in paragraph 1.20 of GLVIA3:

"concentrates on principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive, in that it does not provide a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape

professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances." (Ref.6.1)

6.3.4 The method has also been agreed through consultation with the Landscape and Views Thematic Group (Ref 6.2). The method for landscape assessment included in the EIA Scoping Report 2013 (Ref. 6.4) for this project was based on the second edition of the GLVIA. However, the method has been reviewed following the publication of GLVIA3 (Ref. 6.1) to ensure its compliance, and has been subject to further consultation with the Landscape and Views Thematic Group (Ref 6.2).

6.3.5 Consultation with relevant local authorities, other organisations with an interest in the landscape and views including consultation with the Landscape and Views Thematic Group (Ref 6.2), and consultation with local communities through community forum groups is detailed in section 6.1 of this chapter.

6.3.6 There are five stages to the method of assessment of landscape effects as detailed in GLVIA3 Volume 5 (Ref 6.1). These comprise:

- scope;
- establishing the landscape baseline;
- predicting and describing landscape effects;
- assessing the significance of landscape effects; and
- judging the overall significance of landscape effects.

Scope

6.3.7 In accordance with paragraph 5.2 of GLVIA3 *"scoping should identify the area of landscape that needs to be covered in assessing landscape effects."* (Ref 6.1)

6.3.8 The physical scope of this landscape assessment (and the visual assessment provided at **Volume 5.7.1**) has been informed by field assessment of existing 400kV overhead lines (including the ZG Route in the southern part of Section B) to consider their visibility at increased distances. Zone of Theoretical Visual Influence (ZTVI) mapping (discussed in **Volume 5.7.1, section 7.3**) was also produced when determining the area over which the proposed 400kV overhead line theoretically could be seen.

6.3.9 Site appraisal work across the study area for the proposed Bridgwater to Seabank connection between December 2011 and late 2012 has also been used as the basis for defining the area from where the proposed 400kV overhead line, and proposed CSE compounds and Sandford Substation, would potentially be visible.

6.3.10 Field assessment and site appraisal work has determined that a typical standard steel lattice 400kV overhead line pylon approximately 50m high can be discerned at distances up to 10km. However from distances of over 3km whilst it may be possible to discern an overhead line on a clear day it would be barely perceptible in that view.

6.3.11 Field assessment and site appraisal work also determined that where visible at distances between 1 and 3km a typical standard steel lattice 400kV overhead line

can typically be seen in a small proportion of views, often above trees, hedgerow, landform and built form. Where visible within 1km a typical standard steel lattice 400kV overhead line can typically be seen in a greater proportion of the view depending on filtering, screening or backgrounding which may reduce the extent visible.

6.3.12 The T-pylon has not yet been used as a support for an overhead line in the UK, therefore it was not used to determine distances from where it may be possible to discern. However due to the T-pylon being 34.5m high, and of a reduced height when compared with a typical standard steel lattice 400kV pylon, it is anticipated that it would be discernible for a reduced distance due to the effects of intervening trees, landform and built form.

6.3.13 Visual assessment of the Proposed Development, presented in **Volume 5.7.1,** was undertaken during 2013 in accordance with the parameters identified in the visual assessment method provided at **Volume 5.7.1, section 7.3**.

6.3.14 The visual assessment considered all receptors within 1km of the Limits of Deviation (LoD) for the proposed 400kV overhead line, where the Proposed Development was anticipated to be seen in a greater proportion of the view/s and visual receptors would potentially experience the greatest effects. 'Representative viewpoints' (discussed in **Volume 5.7.1, section 7.4**), between 1 and 3km of the LoD for the proposed 400kV overhead line have been assessed, along with 'valued viewpoints' beyond 3km including some on elevated land visible at distances over 10km. These assessment parameters were agreed as appropriate with the Landscape and Views Thematic Group (Ref. 6.2).

6.3.15 The study area for the landscape assessment has considered the visual parameters referred to above and discussed further in **Volume 5.7.1, section 7.3**. Landscape character and potential direct and indirect landscape effects have been considered within 3km of the LoD for the Proposed Development.

6.3.16 The study area boundary is 3km from the LoD for those parts of the Proposed Development that would exist during operation and which comprise the following:

- 400kV overhead line;
- CSE compounds;
- Sandford Substation; and
- 400kV overhead line modifications at Hinkley Point.

6.3.17 The study area boundary in Section C is 3km from the LoD for the proposed 400kV underground cable swathe, as adverse landscape effects would arise during construction associated with the installation of the 400kV underground cables and removal of the F Route in this Section.

6.3.18 Due to the small scale of the proposed works at Churchill Substation, and the proposed cable sealing end platform pylon (CSEPP) on the W Route southwest of Nailsea, the study area for these elements of the Proposed Development is 1km from the proposed LoD.

6.3.19 132kV underground cables proposed in Sections D, E, F and G run through the study area for the proposed 400kV overhead line and are assessed in combination with the proposed 400kV overhead line.

6.3.20 The 3km study area for this landscape assessment in Sections A to H, is illustrated at **Volume 5.6.2, Figures 6.2 - 6.3**. These figures also illustrate 1km from the LoD for each element of the Proposed Development, within which direct and indirect landscape effects are anticipated to be of the greatest significance.

Establishing the Landscape Baseline

Desk Based Assessment

6.3.21 A review of relevant information, guidance and planning policy relating to electricity transmission and the landscape (and views) has been undertaken including:

- The Holford Rules – Guideline for the Routeing of New High Voltage Overhead Transmission Lines;
- The Horlock Rules – Guidelines on the Siting and Design of National Grid Substations;
- National Grid's Approach to the Design and Routeing of New Electricity Transmission Lines;
- NPS (EN-1 and EN-5);
- NPPF;
- Local Planning Policy including:
    - West Somerset Saved Local Plan 2006;
    - West Somerset Local Plan to 2032 (not yet adopted);
    - Hinkley Point C Supplementary Planning Document (Oct 2011);
    - Sedgemoor District Saved Local Plan 1991-2011;
    - Sedgemoor District Council Core Strategy (Sept 2011);
    - North Somerset Replacement Local Plan 2007 (as saved 2010);
    - North Somerset Adopted Core Strategy (March 2013);
    - Bristol City Council's Saved Local Plan 1997;
    - Bristol Development Framework Core Strategy (Adopted June 2011);
    - Bristol City Council's Supplementary Planning Document 1: Tall Buildings (January 2005);
    - South Gloucestershire Joint Replacement Structure Plan (Adopted 2002) (Saved Policies);
    - South Gloucestershire Saved Local Plan (2006); and
- South Gloucestershire Core Strategy (not yet adopted).
- Published national and local landscape character assessments including:

- Countryside Character Volume 8: South West of England (Natural England);
- National Character Area Profiles (Natural England);
- Countryside Commission's 'Mendip Hills AONB Landscape Assessment' (1998);
- The Mendip Hills AONB Management Plan 2009 to 2014;
- The Mendip Hills AONB Management Plan 2014 to 2019 and Draft Delivery Plan (2013);
- West Somerset Landscape Character Assessment (1999);
- Sedgemoor Landscape Assessment and Countryside Design Summary, (Revised Edition 2003);
- North Somerset Landscape Character Assessment (2005);
- South Gloucestershire Landscape Character Assessment (July 2005)

- The Forest of Avon Plan 2002; and
- Ordnance Survey mapping and aerial photography.

Site Assessment

6.3.22 Between December 2011 and September 2012 a significant amount of desk study and field survey work was undertaken by TEP to gather landscape and visual baseline information to inform and assess potential connection options within the preferred route corridor between Bridgwater and Seabank and for the proposed Hinkley Line Entries.

6.3.23 Desk study and field survey work undertaken between December 2011 and September 2012 has also been used as the basis for defining the area from where the proposed 400kV overhead line would potentially be visible.

6.3.24 Between February 2013 and June 2013, and between November 2013 and January 2014, further detailed site assessment work was undertaken. Landscape character and views have been recorded in winter, spring and summer. Site visits to record verified photomontages were also carried out during this time period.

6.3.25 Site assessment of landscape character and the Proposed Development has involved visits to the area by car and on foot, and the landscape has been experienced and landscape characteristics and features recorded from publicly accessible locations.

Reporting on the Baseline Situation

6.3.26 Following desk based and site assessments the landscape baseline is described and supported with illustrations where necessary, including for example, maps illustrating published national and local landscape character areas, and topography. As stated in paragraph 5.33 of GLVIA3, "*individual elements and aesthetic and perceptual aspects of the landscape*" should be identified and described, with a particular emphasis on any key characteristics that contribute to the distinctive character of the landscape. GLVIA3 paragraph 5.33 also states that "*the condition*

of the landscape, including the condition of elements or features such as buildings, hedgerows or woodland" should be identified.

6.3.27 GLVIA3 paragraph 5.33 also states that the landscape should be described as it is at the time, but consideration should also be given to the future baseline i.e. what it may be like in the future in the absence of the development proposed.

6.3.28 The 'base case', (discussed in **Volume 5.5.1**), has also been considered and refers to what the landscape is anticipated to be like when effects would arise.

6.3.29 As part of establishing the baseline situation the value of the landscape potentially affected is evaluated. This is in accordance with paragraph 5.44 of GLVIA3 (Ref 6.1). Landscape value is also referred to below as part of the method for 'Assessing the Significance of Landscape Effects'.

6.3.30 Highly valued landscapes are typically identified by national level designations such as National Parks and AONB. Landscapes of local value may be identified by designations in the local planning process such as Areas of Great Landscape Value and Special Landscape Areas although Planning Policy Statement 7 (replaced by the NPPF) advised against local designations and advocated a 'criteria-based' approach to landscape protection and enhancement.

6.3.31 Undesignated landscapes and features are also valued. Paragraph 5.19 of GLVIA3 identifies that following a review of existing landscape designations "*the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape – such as trees, buildings or hedgerows – may also have value."* GLVIA3 (Ref 6.1)

6.3.32 GLVIA3 also states in Box 5.1 under paragraph 5.28, those factors that can help in the identification of valued landscapes include; landscape quality (condition); scenic quality; rarity; representativeness; conservation interest; recreation value; perceptual aspects and associations. These factors have been considered when determining landscape value. Local landscape character assessments have also been reviewed to inform judgements made on landscape value, and consultation with the Landscape and Views Thematic Group (Ref. 6.2), and the Community Forums has been used to help identify locally valued landscapes and features.

6.3.33 Paragraph 5.19 of GLVIA3 states that "*landscapes or their component parts may be valued at the community, local, national or international levels*." (Ref 6.1). The landscape across Sections A to H is recorded as being of national or local value. Where the landscape is recognised as having higher value, but no greater than of local value, this is identified.

Predicting and Describing Landscape Effects

6.3.34 Once the landscape baseline has been established, baseline information is combined with an understanding of the components of the development proposed that would potentially be introduced into the landscape, to identify and describe the landscape effects. This is in accordance with paragraph 5.34 of GLVIA3 (Ref 6.1).

6.3.35 Paragraph 5.34 of GLVIA3 (Ref 6.1) refers to two steps when predicting landscape effects. These are summarised below:

- the first step is to identify the components of the landscape that are likely to be affected by the scheme; and

- the second step is to identify interactions between these landscape receptors and the different components of the development at all its different stages.

6.3.36 Landscape effects in this assessment have been predicted based on the above approach. The description of landscape effects has been presented as appropriate for this assessment.

6.3.37 The type of landscape effects predicted as a result of the Proposed Development should include, where relevant, effects that are direct, indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive (or beneficial) and negative (or adverse). These are discussed further below.

Assessing the Significance of Landscape Effects

6.3.38 The following method for the assessment of the likely significant effects of the Proposed Development on the landscape is in accordance with the guidelines at paragraph 5.38 to 5.52 of GLVIA3 (Ref 6.1). Assessing the significance of identified landscape effects requires an assessment of the sensitivity of the landscape affected (its susceptibility to change and value), and an assessment of the magnitude of the effect (size or scale; geographical extent; nature of the effect (adverse or beneficial); and its duration and reversibility) on the landscape.

6.3.39 National and local level landscape character assessments have been used as the basis for establishing the baseline environment for this landscape assessment and have been supplemented with field observations where differences or refinements were noted.

Landscape Sensitivity

6.3.40 In accordance with paragraph 5.39 of GLVIA3 (Ref 6.1), landscape sensitivity combines judgements of the landscape's susceptibility to change to the type of development proposed (i.e. the degree to which the landscape can accommodate the proposed change without suffering detrimental effects on its character), and the value attached to the landscape.

Susceptibility to Change

6.3.41 The susceptibility of a landscape to change is dependent on the characteristics of the receiving landscape and the type and nature of the development proposed. Landscape character types or areas also have varying sensitivity to the types of development they are able to accommodate. In accordance with paragraph 5.42 of GLVIA3 (Ref 6.1), the assessment of susceptibility is tailored to the development proposed, and is considered as part of the assessment of effects (presented in section 6.5 of this chapter), and is not recorded as part of the landscape baseline.

6.3.42 The judgement on the susceptibility of a landscape to the change proposed is recorded as high, medium or low. The susceptibility of the landscape to the Proposed Development has been assigned to the landscape in Sections A to H in accordance with **Table 6.6**.

Table 6.6 Susceptibility to Change

Susceptibility to Change	Typical Criteria
High	• there are no overhead lines present in the landscape; and or • there is limited or no screening and or backgrounding by landform, woodland, and or built form; and or • the landscape type cannot accommodate the operation of the Proposed Development (and or the construction and decommissioning stages) without suffering detrimental effects on its character.
Medium	• there is one or more overhead line present in the landscape; and or • there is some screening and or backgrounding by landform, woodland, and or built form; and or • the landscape type is generally able to accommodate the operation of the Proposed Development (and or the construction and decommissioning stages) without suffering detrimental effects on its character.
Low	• there is large scale development, industry and overhead lines present in the landscape; and or • there is screening and or backgrounding by landform, woodland, and or built form; and or • the landscape type is able to accommodate the operation of the Proposed Development (and or the construction and decommissioning stages) without suffering detrimental effects on its character.

Value of the Landscape

6.3.43 As stated and discussed above, the value of the landscape potentially affected by a proposed development is evaluated when establishing the landscape baseline.

Landscape Sensitivity

6.3.44 As identified above landscape sensitivity considers the landscape's susceptibility to change to the development proposed, and the value attached to the landscape potentially affected. The assessment of landscape sensitivity has been assigned to the landscape in Sections A to H with consideration to the typical criteria identified in **Table 6.7**.

Table 6.7 Landscape Sensitivity

Landscape Sensitivity	Typical Criteria
High	The landscape has a high susceptibility to change and has national value ; or The landscape has a medium susceptibility to change and has national value.
Medium	The landscape has a high susceptibility to change and has local value; or The landscape has a medium susceptibility to change and has local value; or The landscape has a low susceptibility to change and has national value.
Low	The landscape has a low susceptibility to change and has local value.

6.3.45 Consideration has also been given to paragraph 5.46 of GLVIA3 (Ref 6.1) where it states that there can be complex relationships between the value of a landscape and the landscape's susceptibility to change, which are noted as being especially important when considering change within or close to designated landscapes. GLVIA3 provides the following examples:

- *"an internationally, nationally or locally valued landscape does not automatically, or by definition, have high susceptibility to all types of change;*
- *it is possible for an internationally, nationally or locally important landscape to have relatively low susceptibility to change resulting from the particular type of development in question, by virtue of both the characteristics of the landscape and the nature of the proposal;*
- *the particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape."* (Ref 6.1)

6.3.46 In accordance with paragraph 5.42 of GLVIA3 (Ref 6.1), landscape sensitivity is considered as part of the assessment of effects (presented in section 6.5 of this chapter), where the judgements on susceptibility to change are identified.

Magnitude of Effect

6.3.47 In accordance with paragraphs 5.48 to 5.52 of GLVIA3 (Ref. 6.1) the magnitude of effect on the landscape is considered with regard to the size or scale of change in the landscape likely to be experienced as a result of a development; the geographical extent of the area influenced; the nature of the effect (adverse or beneficial), and the duration and reversibility of the effect, as detailed in GLVIA3 (Ref 6.1). More weight is usually given to effects that are greater in scale and long-term in duration. In assessing the duration of the effect, consideration is given to the effectiveness of guaranteed mitigation, particularly where planting is proposed as part of the works which would change the scale of the landscape effect. The following aspects have been taken into consideration in determining the magnitude of effects on landscape character.

Size or Scale

6.3.48 Determining the size or scale of landscape effect takes account of the loss or the addition of features in the landscape and the changes anticipated in its composition as a result of the Proposed Development. Consideration is also given to whether the predicted landscape effect changes the key characteristics of the landscape that influences the distinctive character of the landscape.

Geographical Extent

6.3.49 The geographical area likely to be affected by the Proposed Development is considered in the landscape assessment. Landscape effects can be experienced at the site level (i.e. within the Proposed Development site), at the scale of the landscape character area within which the Proposed Development is; and also at a large scale where the Proposed Development would influence several landscape character areas.

Duration and Reversibility of Landscape Effects

6.3.50 These are separate but linked considerations.

6.3.51 Duration has been judged on a scale of:

- short-term: 0 to 5 years including the construction period and on completion;
- medium-term: 5 to 15 years including establishment of replacement and proposed mitigation planting; and
- long-term: 15 years onwards for the life of the Proposed Development.

6.3.52 Reversibility is a judgement about the prospects and the practicality of the landscape effects being reversed. For example, while some forms of development such as housing can be considered permanent, others such as an overhead line can be considered as reversible since they have a limited life and could eventually be removed and the land reinstated. Reversibility is particularly relevant to construction effects as works will cease and land and most landscape features will be reinstated in the short-term.

Direct and Indirect Effects

6.3.53 In this landscape assessment, both ‘direct’ and ‘indirect’ effects have been considered.

Magnitude of Effect

6.3.54 The magnitude of effect considers the scale of change (i.e. whether it is high, moderate, low or negligible); its nature (adverse, beneficial or neutral); and its duration (short, medium or long-term) and its reversibility.

6.3.55 **Table 6.8** describes the magnitude criteria for the landscape assessment, which can be adverse or beneficial.

Table 6.8 Criteria for the Assessment of the Magnitude of Effect on Landscape Character

Magnitude of Effect	Typical Criteria
High	Major alteration to key features or characteristics in the existing landscape and/or the introduction of elements considered totally uncharacteristic. Typically this would be where there would be a great scale of change to the character of the landscape for the long or medium-term.
Moderate	Partial alteration to key features or characteristics of the existing landscape and/or the introduction of prominent elements. Typically this would be where there would be a perceivable scale of change to the character of the landscape for the medium and long- term; or where there would be a great scale of change on the landscape for the short-term.
Low	Minor alteration to key features and characteristics of the existing landscape and/or the introduction of features which may already be present in the landscape. Typically this would be where there is a perceivable or low scale of change to the character of the landscape for the short-term; or where there would be a low scale of change on the landscape in the medium or long-term.
Negligible	A very minor alteration to key features or characteristics of the existing landscape. Typically this would be where in the short, medium or long-term the scale of change on landscape character would be barely perceptible.

Judging the Overall Significance of Landscape Effects

6.3.56 GLVIA3 paragraph 5.53 states that:

"to draw final conclusions about significance the separate judgements about the sensitivity of the landscape receptors and the magnitude of the landscape effects need to be combined, to allow a final judgement about whether each different effect is significant or not." (Ref 6.1)

6.3.57 The assessment of the significance of the effect of the Proposed Development on the landscape is not an absolute scale. GLVIA3 paragraph 3.23 states that the assessment of significance *"is an evidence-based process combined with professional judgement",* and that the basis of these judgements *"is transparent and understandable, so that the underlying assumptions and reasoning can be understood by others."* (Ref 6.1)

6.3.58 Paragraph 5.56 of GLVIA3 states that it is reasonable to say that the more significance effects would relate to those that would result in *"major loss or irreversible negative (adverse) effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes."* (Ref 6.1)

6.3.59 At the other end of the spectrum effects that could be determined as being less significant would relate to *"reversible negative (adverse) effects of short duration over a restricted area, on elements and/or aesthetic and perceptual aspects that contribute to but are not key characteristics of the character of landscapes of community value."* (Ref 6.1)

6.3.60 Judgements on the significance of effect on landscape character, which can be beneficial (enhance the landscape) or adverse (at odds with or harmful to the landscape's key features or character) consider the typical criteria presented in **Table 6.9**.

Table 6.9 Significance of Landscape Effects

Significance	Typical Criteria
Major adverse	An effect of major adverse significance is generally recorded where a high adverse magnitude of effect occurs to a high or medium sensitivity landscape receptor. For example, when the Proposed Development would: • be at complete variance with the landform, scale and pattern of the landscape; • would permanently degrade, diminish or destroy the integrity of valued characteristic features and/or their setting; • would substantially damage a high quality, highly valued landscape.

Significance	Typical Criteria
Moderate adverse	An effect of moderate adverse significance is generally recorded where a moderate adverse magnitude of effect is experienced by a landscape receptor of high or medium sensitivity. For example, when the Proposed Development would: • be at considerable variance with the landform, scale and pattern of the landscape; • would degrade, diminish or destroy the integrity of some characteristic features and/or their setting; • would cause damage to the character of a valued landscape.
Minor adverse	An effect of minor adverse significance generally relates to a low adverse magnitude of effect on the landscape. For example, when the Proposed Development would: • result in short-term landscape effects; • not quite fit into the landform, scale and pattern of the landscape; • have an adverse effect on an area of recognised landscape character.
Neutral	An effect of neutral significance is recorded where a negligible magnitude of effect occurs. For example, when the Proposed Development would: • be in keeping with the scale, landform and pattern of the existing landscape; • maintain the existing landscape quality.
Minor beneficial	An effect of minor beneficial significance generally relates to a low beneficial magnitude of effect on the landscape. For example, when the Proposed Development would: • fit with the scale, landform and pattern of the landscape; • enable the restoration of valued characteristic features partially lost through other land uses to improve the landscape quality and character.

Significance	Typical Criteria
Moderate beneficial	An effect of moderate beneficial significance is generally recorded where a moderate beneficial magnitude of effect is experienced by a landscape receptor of high or medium sensitivity. For example, when the Proposed Development would: • fit well with the existing scale, landform and pattern of the landscape; • improve the quality of the landscape through removal of damage caused by previous or existing land uses.
Major beneficial	An effect of major beneficial significance is generally recorded where a high beneficial magnitude of effect occurs to a high or medium sensitivity landscape receptor. For example, when the Proposed Development would: • enhance and redefine the landscape character in a beneficial manner; • repair or restore landscape badly damaged or degraded through previous or existing land uses.

Assessment Years

6.3.61 The assessment year (or years) for the assessment of construction effects on landscape character is dependent on a number of factors; for example, the geographical location of a landscape character area or feature, and the specific Proposed Development component (or components) which are considered to give rise to a landscape effect (or landscape effects). Effects on landscape also have the potential to arise for part of the construction phase or the entirety of the construction phase.

6.3.62 As detailed in **Volume 5.5.1, section 5.6** it has been appropriate to assess the significance of potential landscape effects when such effects would be at their peak, for example when both construction of the proposed 400kV overhead line and removal of the F Route occur at the same time; and assessment of the Proposed Development on completion prior to establishment of mitigation planting. This complies with the general approach to the assessment of a reasonable worst case scenario.

6.3.63 The 'opening year' is used as the basis of assessment of operation effects on landscape character. The opening year for the Proposed Development is late 2019. Landscape effects of the Proposed Development are considered during operation at the opening year including implementation of guaranteed mitigation planting. Residual landscape effects of the Proposed Development are also considered when guaranteed mitigation planting would have established fifteen years after the opening year.

6.3.64 Landscape effects during the operation of the Proposed Development in the short and medium-term, at the opening year and to year fifteen, (including the

establishment of guaranteed mitigation planting detailed at section 6.7 of this chapter), are considered at section 6.5 of this chapter. The short-term (and where relevant the long-term) landscape effects arising during the construction of the Proposed Development (between Q3 2015 and the opening year), and the decommissioning of the Proposed Development are also considered at section 6.5.

6.3.65 The long-term residual effects of the Proposed Development 15 years and onwards (including the establishment of guaranteed mitigation planting) are considered at section 6.8 of this chapter.

6.3.66 This landscape assessment identifies and assesses the likely significant effects on landscape character during the different stages of the Proposed Development. The landscape assessment identifies for each Section of the Proposed Development the sensitivity of the landscape, the nature of the change in the landscape (magnitude of effect) and the significance of the landscape effect.

Inter-relationship of Effects and Inter-Project Effects

6.3.67 Consideration has been given as an intrinsic part of this landscape assessment to any inter-relationship of effects from the Proposed Development between different aspects of the environment. For example ecological mitigation has the potential to affect both landscape and views.

6.3.68 The landscape assessment also considers the potential inter-project cumulative landscape effects from the interaction of the Proposed Development and other major development proposals in the vicinity, discussed in the cumulative assessment method provided in **Volume 5.17.1, section 17.2.** The cumulative landscape assessment is provided in **Volume 5.17.1, section 17.3**.

6.4 Baseline Environment

6.4.1 This part of the chapter describes the existing environment in relation to the Proposed Development. The information provided has been derived from the baseline information for landscape, which was gathered to inform the 2012 Connection Options Report (COR) (Ref. 6.3), and which has been refined by the findings of the site assessments undertaken in 2012 and 2013, and also considered as part of the 2013 Pylon Design Options Report (Ref. 6.5).

6.4.2 This part of the chapter also considers landscape designations and published landscape assessments. It includes a summary of landscape designations present within or close to each Section of the project study area; a review of national landscape character areas and local landscape character areas across Sections A to H; reference to the Forest of Avon Community Forest in relation to Sections D to G; a description of the landscape character of each Section of the proposed Bridgwater to Seabank connection (Sections A to G), as well as the Hinkley Line Entries study area in Section H, following field assessment.

Desk-Based Assessment

Landscape Designations

6.4.3 National landscape designations are discussed below in order of proximity and relevance to the Proposed Development. There are no local landscape designations in Sections A to H.

Mendip Hills AONB

6.4.4 The proposed Bridgwater to Seabank connection runs through the Mendip Hills AONB. Section C comprises part of the western extent of the Mendip Hills AONB (see **Figure 6.1.1**).

6.4.5 The Mendip Hills AONB is of national importance and was designated under the 1949 National Parks and Access to the Countryside Act 1949 (the 1949 Act), the primary purpose of which is to conserve and enhance the natural beauty of the landscape.

6.4.6 The Mendip Hills comprise a range of limestone hills which stretches eastwards from the Bristol Channel rising dramatically above the flat Somerset Levels and Moors.

6.4.7 The Mendip Hills ridge is broken into prominent individual hills in the west including Bleadon Hill, Crook Peak and Wavering Down. Further east the Mendip Hills rise to an open limestone plateau with much of the area in pasture. The slopes and valleys surrounding the plateau support a range of woodland and limestone grassland. The majority of the Mendip Hills comprises land under improved pasture with some horticulture in the southwest. Hedgerows define field boundaries on the slopes and in the valleys. Villages are concentrated at the foot of the plateau slopes and scattered farmsteads are found on the plateau and western slopes. The M5 motorway and A38 run through the Mendip Hills.

6.4.8 The Mendip Hills AONB Partnership was established in 1983 and consists of the local authorities, Natural England, other organisations with a land management responsibility such as Somerset and Avon Wildlife Trusts, National Trust, together with parish councils and other interested groups such as the Mendip Society. The

AONB Partnership produced a Management Plan for 2009 to 2014 (Ref 6.6) that sets out the special qualities of the AONB and identifies objectives and actions to retain and enhance these special qualities. These special qualities and objectives and actions are discussed further below.

6.4.9 The Mendip Hills AONB Management Plan 2009 to 2014 is the current plan. However the Mendip Hills AONB Management Plan 2014 to 19 and Draft Delivery Plan (Ref 6.7) has been produced and is endorsed by the Mendip Hills AONB Partnership. It is now being taken forward by the five local authorities for formal adoption.

Mendip Hills AONB Management Plan 2009-2014

6.4.10 The AONB Management Plan (Ref. 6.6), in its 'Statement of Significance' sets out five groups of features and characteristics that make the Mendip Hills special and significant. These broadly comprise:

- the steep craggy slopes, distinctive south facing escarpment and gently undulating plateau;
- far reaching, changing seasonal views across the Severn Estuary to Wales and across the Somerset Levels to Glastonbury Tor and Hinkley Point;
- numerous landscape features which unify the AONB and include: Plateau, slopes and hills; swallets (natural depressions or holes), combes (valleys) and the 'Netherworld' (caves below the Mendip Hills); risings, ponds and lakes; Mendip stone and Mendip buildings; walls and hedges; downland and heathland; woodland and parkland; historic landscapes; and roads, lanes and track ways;
- the Chew Valley with its rich farmed landscape and fields divided by hedges; and
- the underground karst landscape which includes numerous caves.

6.4.11 The objectives and actions for the Mendip Hills AONB are grouped under nine themes. The objectives of particular relevance to this assessment are grouped under the 'landscape quality' theme and include:

- monitor landscape change and make information available to aid decision making;
- promote appropriate management to ensure that the distinctive Mendip Hills AONB landscape is maintained and enhanced;
- provide and encourage training provision on land management to care for and promote the landscape and its special qualities;
- increase awareness and appreciation of the purposes of designation and the special qualities of the AONB to residents and visitors; and
- designate land of high importance as an AONB as appropriate.

Mendip Hills AONB Management Plan 2014-2019

6.4.12 The revised Mendip Hills AONB Management Plan for 2014 to 2019 (Ref 6.7) identifies in the 'Statement of Significance', the twelve special qualities that create the Mendip Hills sense of place and identity. One of these special qualities expands on the features and characteristics included in the AONB Management Plan 2009 to 2014, which refers to the far reaching changing seasonal views across the Severn Estuary to Wales and across the Somerset Levels to Glastonbury Tor and Hinkley Point. The Management Plan for 2014 to 2019 also refers to views towards to the Mendip Hills from the Somerset Levels and Moors, and from Exmoor, Quantocks, and the Chew Valley.

6.4.13 The revised Mendip Hills AONB Management Plan for 2014 to 2019 sets out the objectives to achieve the vision for the Mendip Hills AONB in fifteen years' time. These objectives are identified under eight themes (previously nine) and one of these themes continues to be 'landscape quality'. Four objectives have been identified under this theme (similar to those in the current Management Plan) and are as follows:

- promote appropriate management to ensure that the distinctive Mendip Hills AONB landscape is maintained and enhanced;
- provide opportunities to acquire and develop skills required to care for and promote the landscape and its special qualities;
- increase awareness and appreciation of the purposes of designation and the special qualities of the AONB; and
- increase awareness of the benefits of supporting local products and services that help conserve and enhance the landscape.

Mendip Hills AONB Landscape Assessment

6.4.14 The Countryside Commission's 'Mendip Hills AONB Landscape Assessment' produced in 1998 identifies eleven character areas. The following AONB character areas are of particular relevance to Section C:

- Lox Yeo Valley and Winscombe Vale;
- Bleadon Hills in the west;
- Banwell Hill to Towerhead in the north;
- Crook Peak to Callow Hill in the south and southeast; and
- Northern Slopes in the northeast.

6.4.15 The Countryside Commission's 'Mendip Hills AONB Landscape Assessment' produced in 1998 (Ref 6.8) is currently being reviewed. Local landscape character assessments for Sedgemoor (Ref 6.9) and North Somerset (Ref 6.10), include the landscape within the Mendip Hills AONB and have been reviewed to understand the existing landscape character of this AONB further. This review is provided later in this chapter under the sub-heading Local Landscape Character Assessment.

Quantock Hills AONB

6.4.16 The Quantock Hills AONB is approximately 9.5km to the southwest of where the proposed Bridgwater to Seabank connection would meet the VQ Route in Section A. The Quantock Hills AONB is approximately 5 km southwest of the proposed Hinkley Line Entries in Section H, at its closest point. See **Volume 5.6.2, Figures 6.1.1 and 6.1.2**.

6.4.17 The Quantock Hills AONB is of national importance and was designated under the 1949 Act, the primary purpose of which is to conserve and enhance the natural beauty of the landscape.

6.4.18 The Quantock Hills (National Landscape Character Area 144) stretch south-eastwards from the Bristol Channel as a 19km long ridge standing high above the surrounding agricultural plain. The ridge comprises open moorland and heath and extensive views are possible across the surrounding landscape.

National Landscape Character Assessment

6.4.19 Natural England is in the process of producing revised National Character Area (NCA) profiles. NCA profiles are guidance documents which include a description of the key ecosystem services in each character area and how these benefit people, wildlife and the economy. The NCA profiles identify potential opportunities for positive environmental change and provide the best available information and evidence as a context for local decision making and action. Revised profiles for all 159 Character Areas are due to be published by April 2014.

6.4.20 The majority of the NCA profiles relevant to the landscape within Sections A to H have been revised by Natural England. However, there are two NCA profiles which are yet to be revised in full. These are the Mid Somerset Hills and Vale of Taunton and Quantock Fringes, and are referenced below as National Landscape Character Areas (NLCA).

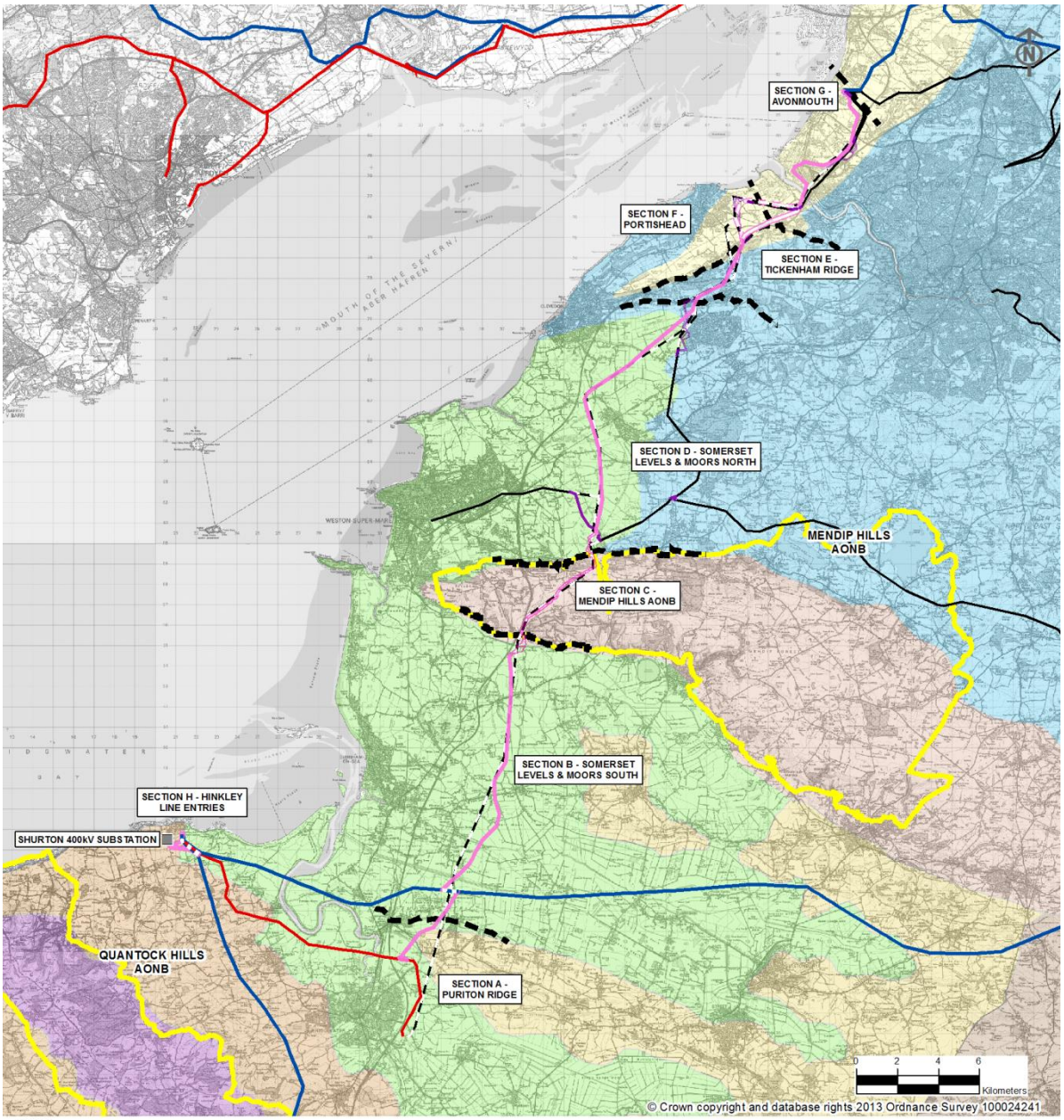
6.4.21 A brief summary of the NCAs and NLCAs relevant to Sections A to G, and Section H is provided below and they are illustrated at **Volume 5.6.2, Figures 6.1.1 - 6.1.2**. Topography within Sections A to H is illustrated at **Volume 5.6.2, Figures 6.3.1 - 6.3.5** and at **Inset 6.2**.

Sections A to G: Bridgwater to Seabank Connection

6.4.22 The following NCAs and NLCAs, illustrated at **Volume 5.6.2, Figure 6.1.1** and **Inset 6.1** overleaf, are relevant to the Bridgwater to Seabank connection proposed through Sections A to G:

- Somerset Levels and Moors (NCA 142);
- Mid Somerset Hills (NLCA 143);
- Vale of Taunton and Quantock Fringes (NLCA 146);
- Quantock Hills (NCA 144);
- Mendip Hills (NCA 141);
- Bristol, Avon Valleys and Ridges (NCA 118); and
- Severn and Avon Vales (NCA 106).

Inset 6.1 (of **Volume 5.6.2, Figure 6.1.1**): National Character Areas



Key

Proposed Infrastructure
- Proposed Route for 400kV Overhead Line
- Preferred Route (Option A) for 400kV Overhead Line
- Alternative Route (Option B) for 400kV Overhead Line
- Proposed Route for 132kV Overhead Line
- Proposed 400kV Underground Cable Route Limits of Deviation
- Proposed 132kV Underground Cable Route LoD

Existing Infrastructure
- Existing 400kV Overhead Line
- Existing 275kV Overhead Line
- Existing Western Power Distribution Overhead Line
- Existing 400kV Overhead Line to be Removed
- Existing 275kV Overhead Line to be Removed
- Existing Western Power Distribution 132kV Overhead Line for Removal

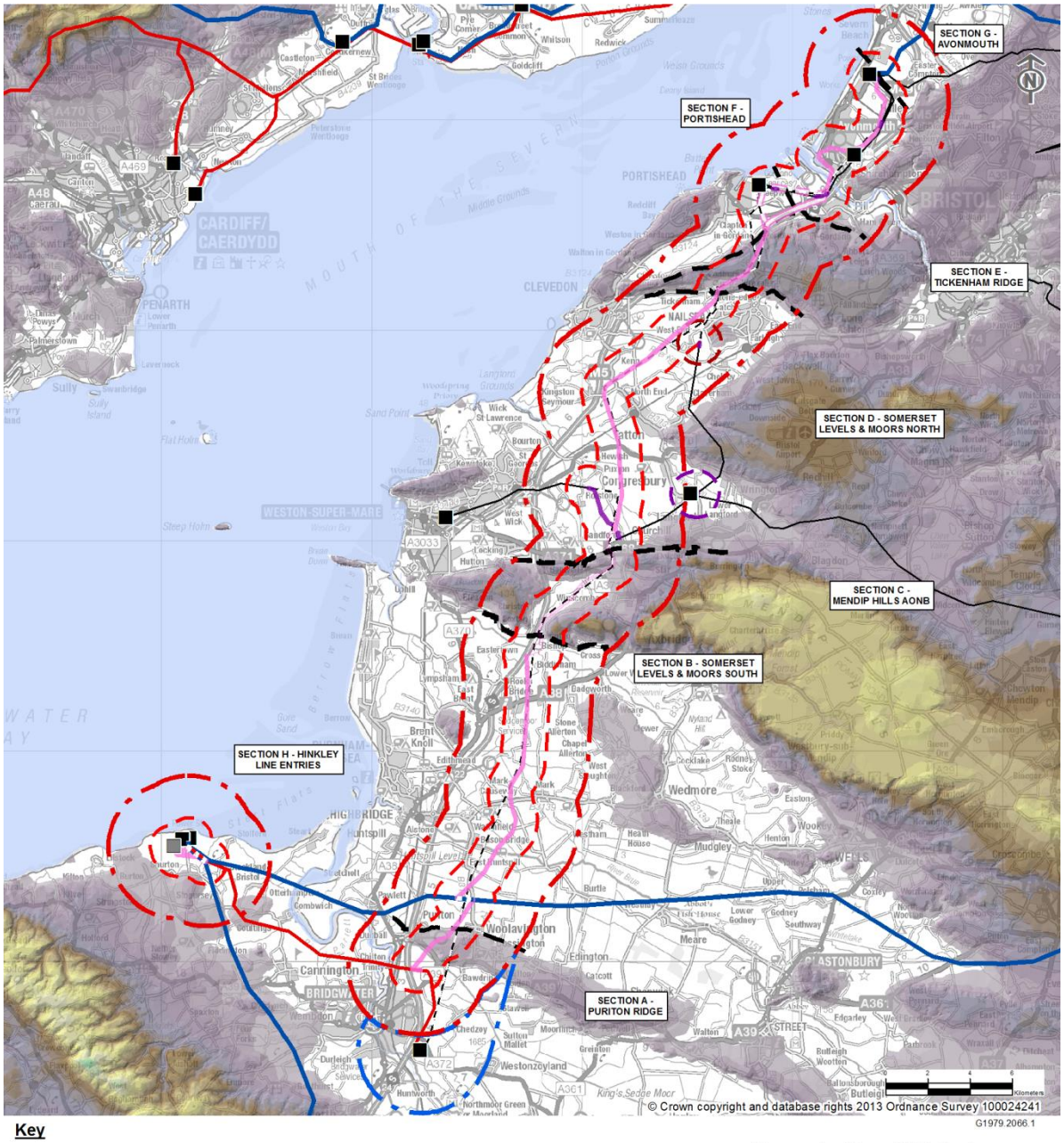
Consented Infrastructure
- Shurton 400kV Substation

Landscape Designations
- Areas of Outstanding Natural Beauty

National Landscape Character Areas
- Vale of Taunton and Quantock Fringes
- Quantock Hills
- Somerset Levels and Moors
- Mid Somerset Hills
- Mendip Hills
- Bristol, Avon Valleys and Ridges
- Severn and Avon Vales
- Yeovil Scarplands

Section Boundary
- Section Boundary (for the purpose of Landscape and Visual Assessments)

Inset 6.2 (of **Volume 5.6.2, Figure 6.3.1**): Topography Map of Sections A-H



Key

Proposed Infrastructure

- Proposed Route for 400kV Overhead Line
- Preferred Route (Option A) for 400kV Overhead Line
- Alternative Route (Option B) for 400kV Overhead Line
- Proposed Route for 132kV Overhead Line
- Proposed 400kV Underground Cable Route Limits of Deviation
- 1km from the Limits of Deviation of the Proposed Development
- 1km from the Limits of Deviation of the Proposed Works at Churchill Substation
- 1km from the Limits of Deviation of the Proposed Cable Sealing End Platform Pylon
- 3km Study Area from the Limits of Deviation of the Proposed Development
- 3km Study Area from the F Route (beyond 3km from the Proposed Development to Bridgwater Substation)

Existing Infrastructure

- Existing 400kV Overhead Line
- Existing 275kV Overhead Line
- Existing Western Power Distribution 132kV Overhead Line
- Existing 400kV Overhead Line to be Removed
- Existing 275kV Overhead Line to be Removed
- Existing Western Power Distribution 132kV Overhead Line for Removal
- Existing Substation

Consented Infrastructure

- Shurton 400kV Substation

Section Boundary

- Section Boundary (for the purpose of Landscape and Visual Assessments)
- Coastal Water Body

Topography (Above OS Datum)

Elevation

380 - 400	100 - 120
360 - 380	80 - 100
340 - 360	60 - 80
320 - 340	40 - 60
300 - 320	20 - 40
280 - 300	0 - 20
260 - 280	
240 - 260	
220 - 240	
200 - 220	
180 - 200	
160 - 180	
140 - 160	
120 - 140	

Somerset Levels and Moors (NCA 142)

6.4.23 Part of Section A and the majority of Sections B and D are in the Somerset Levels and Moors NCA.

6.4.24 The Somerset Levels and Moors character area (NCA 142) is described as a broad area of wet pasture, arable and wetland surrounded and divided by rhynes which form a planned reclaimed 'chequer-board' pattern in the landscape.

6.4.25 The Levels are closer to the coast and comprise a belt of clay that restricts the drainage of the Moors further inland. The Levels are an older and more irregular landscape with a slightly denser pattern of settlement. The area includes the largest lowland grazing marsh system in Britain.

6.4.26 The Moors lie in the inland basins formed by the surrounding hills and are a planned landscape reclaimed from wetland. Many parts of the Moors are described as comprising a strong rectilinear pattern of 'rhynes' with a long history of management comprising enclosures, historic track ways, and peat workings. The Moors are largely treeless and are more sparsely populated than the Levels.

6.4.27 Buildings on the open Levels and Moors are scarce, with a few farmsteads. The M5 motorway and railway lines run north south, linking several of the larger towns, including Weston-Super-Mare and Bridgwater. Incremental development and industrialisation from the towns is especially evident on the west side of the motorway.

6.4.28 The landscape is susceptible to flooding, with semi-natural unimproved grasslands, wet meadows, fen, mire and reed beds with the Rivers Axe, Brue, Parrett, Yeo and Isle draining into it.

Mid Somerset Hills (NLCA 143)

6.4.29 National Landscape Character Assessment previously amalgamated this area into a joint description with the Somerset Levels and Moors Character Area, NCA 142. NCA 142 has been revised and separated from the Mid Somerset Hills NLCA 143. The following paragraphs refer to the information currently available in relation to NLCA 143.

6.4.30 There is a close visual association between the Somerset Levels and Moors, and the Mid Somerset Hills character areas. The hills and ridges of the Mid Somerset Hills form a distinct and varied backdrop and skyline to the lower lying Levels and Moors with expansive views from the higher ground across the Levels and Moors.

6.4.31 The Mid Somerset Hills includes the Polden Hills. The westernmost extent of the Polden Hills is the Puriton Ridge in the northern part of Section A. The Mid Somerset Hills character area also extends across land to the east of the Proposed Development in Section B.

6.4.32 Hedgerow, shrub and tree cover is described as increasing on the ridges and 'islands' that comprise slightly higher drier ground above surrounding low-lying farmland divided by ditches and 'rhynes'. Orchards are characteristic features at the edge of the slopes of higher ground. The orchards and shrub and tree cover give an appearance of wooded hills. Settlement is described as being more common on the hills, ridges and islands above the lower lying Levels.

Vale of Taunton and Quantock Fringes (NLCA 146)

6.4.33 The Vale of Taunton and Quantock Fringes NLCA is approximately 2km to the southwest of Bridgwater Substation.

6.4.34 Along the coast to the north of the A39, the Quantock Fringes are described as a belt of rolling, open windswept landscape with a few scattered trees and small villages surrounded by a rectilinear field pattern. The main settlements lie away from the sea. This landscape is noted as being broken up by low-lying wet pasture where meandering streams meet the coast. The Vale of Taunton and Quantock Fringes is also described as comprising mixed farmland generally bound by thick hedgerows commonly on top of banks, and forming irregular, medium-sized fields. Woodland is noted as being sparse and the distribution of hedgerow trees variable.

Quantock Hills (NCA 144)

6.4.35 The Quantock Hills NCA is approximately 6.5km at its closest point to the southwest of Bridgwater Substation.

6.4.36 The Quantock Hills NCA is described as providing superb views over nine counties and is characterised by a central high heathland ridge with some beech clumps. This character area is completely surrounded by the Quantock Fringes and Vale of Taunton character area. The eastern slopes of the Quantock Hills are well farmed with a mixture of hedges, pasture and arable land.

6.4.37 The Quantock Hills encompasses heather moorland including grass, heather and bilberry. The area is described as being largely devoid of settlement resulting in a feeling of space and remoteness. In more sheltered areas an older landscape of scattered farmsteads exists, surrounded by a maze of small, irregular hedged fields connected by winding sunken lanes.

Mendip Hills (NCA 141)

6.4.38 Section C comprises the Mendip Hills NCA.

6.4.39 The Mendip Hills limestone ridge is broken up into prominent individual hills in the west including Bleadon Hill, Crook Peak and Wavering Down. These hills comprise open downland which contrasts with the small hedged fields at the foot of these slopes. Further east the Mendip Hills rise to an open limestone plateau with much of the area in pasture divided into medium-sized fields by dry stone walls with few hedges and trees.

6.4.40 The Mendip slopes and valleys surrounding the plateau support a range of woodland that forms an attractive mosaic with limestone grassland and agricultural land. The majority of the Mendip Hills comprises improved pasture with some horticulture in the south-west referred to as the Strawberry Belt. Hedgerows define field boundaries on the slopes and in the valleys.

6.4.41 The valley bottoms commonly include marshy land, some neutral unimproved meadows, damp woodland, and parkland trees within pasture fields or close to roads.

6.4.42 Winscombe Church is identified as a distinctive element in the Mendip Hills landscape visible from distance, noted alongside other churches with tall towers in the Mendip Hills.

6.4.43 Villages are concentrated at the foot of the plateau slopes and scattered farmsteads are found on the plateau and western slopes. The M5 motorway and A38 run through the Mendip Hills and affect tranquillity.

Bristol, Avon Valleys and Ridges (NCA 118)

6.4.44 The Bristol Avon Valleys and Ridges (NCA 118) is on higher ground to the north and east of the Somerset Levels and Moors in Section D and to the south is the Mendip Hills which form an abrupt boundary to this character area. Tickenham Ridge is a strong landscape feature in the Bristol, Avon Valleys and Ridges character area and extends across the northern part of Section D and defines the northern extent of Section E.

6.4.45 The Bristol, Avon Valleys and Ridges (NCA 118) is described as a landscape of very mixed landform, geology and settlement pattern with low-lying, shallow valleys that contrast with the limestone ridges and scarps. Tickenham Ridge in Section E rises steeply from the Somerset Levels and Moors. The steep wooded scarps of the Failand Hills ridge lie northeast of Section D and overlook the River Severn and the low ground of Kenn Moor.

6.4.46 The Bristol, Avon Valleys and Ridges (NCA 118) include wooded scarps, mostly ancient woodland, and downland ridges. The most extensive areas of woodland are between Congresbury and the Avon Gorge and on the Failand Ridge. Agricultural land is a mix of arable and pasture with a variable hedgerow pattern. Settlement comprises frequent large villages, small towns and major conurbations.

6.4.47 High ground in the west and south of the Bristol, Avon Valleys and Ridges character area is noted as being settled at an early date and remaining important through the Iron Age particularly as the area comprises the sites of hill forts, of which Cadbury Hill north of Congresbury is noted as being the best known and is now managed by the National Trust.

6.4.48 The western part of the Bristol, Avon Valleys and Ridges (NCA 118) extends to the west and includes Portishead in Section F. The Bristol, Avon Valleys and Ridges character area encloses the Severn and Avon Vales character area in the west, providing backgrounding to low-lying land. The area is described as a landscape of very mixed landform, geology and settlement pattern with low-lying, shallow valleys that contrast with the limestone ridges and scarps.

6.4.49 The Bristol, Avon Valleys and Ridges (NCA 118) is also to the east of Royal Portbury Dock and Avonmouth beyond the M5 in Section G. It extends over higher ground, including Windmill Hill in the south and Kings Weston Hill, Coombe Hill and Spaniorum Hill to the east and southeast and provides a backdrop to low-lying ground in Section G, in particular in the north of this Section.

6.4.50 To the west, the NCA overlooks the flat Lower Severn and North Somerset Levels and, beyond that, the Severn Estuary and Wales. The area is described as having occasional high points which break through creating landmarks. One example is Dundry Hill to the south of Bristol, at 233m AOD with 360° views. Another example, in the City of Bristol itself, is Brandon Hill, topped by Cabot Tower, which provides a platform for a panoramic view of the city and beyond to the hills in the distance.

Severn and Avon Vales (NCA 106)

6.4.51 The Severn and Avon Vales (NCA 106) extends along the east side of the River Severn comprising the lower valleys of the River Severn and Avon which are described as a flat low-lying predominantly pastoral, vale landscape. These rivers are described as prone to flooding at times of peak rainfall.

6.4.52 The northern most part of Section E, and Sections F and G are in the Severn and Avon Vales (NCA 106).

6.4.53 Woodland is sparse and the landscape is generally open with frequent hedgerow trees, parkland and surviving traditional orchards.

6.4.54 Urban and industrial influences include Portbury Wharf, Royal Portbury Dock and Avonmouth Docks. The M5 motorway runs in a southwest northeast direction along the southern boundary of this area and is particularly prominent where it is elevated on a bridge crossing over the River Avon.

Section H: Hinkley Line Entries

6.4.55 The following NCAs and NLCA are relevant to the proposed Hinkley Line Entries in Section H, and are briefly summarised below:

- Somerset Levels and Moors (NCA 142);
- Vale of Taunton and Quantock Fringes (NLCA 146); and
- Quantock Hills (NCA 144).

6.4.56 NCAs and the NLCA relevant to the proposed Hinkley Line Entries in Section H are illustrated at **Volume 5.6.2, Figure 6.1.1 and 6.1.2** and at **Inset 6.1** above.

Somerset Levels and Moors (NCA 142)

6.4.57 The eastern part of Section H, including the eastern part of the Hinkley Line Entries, is in the Somerset Levels and Moors (NCA 142).

6.4.58 The Somerset Levels and Moors (NCA 142) extend north and northwest of Bridgwater along the River Parrett, and west between and including Stockland Bristol and Stolford, towards the existing Hinkley Point Power Station Complex. The Somerset Levels and Moors also extend north of the River Parrott, along the coast and beyond Burnham-on-Sea.

6.4.59 The Somerset Levels and Moors (NCA 142) is described as a broad area of wet pasture, arable and wetland surrounded and divided by rhynes which form a planned reclaimed ‘chequer-board’ pattern in the landscape.

6.4.60 The Levels are closer to the coast and comprise a belt of clay that restricts the drainage of the Moors further inland. The Levels are an older and more irregular landscape with a slightly denser pattern of settlement. The area includes the largest lowland grazing marsh system in Britain.

Vale of Taunton and Quantock Fringes (NLCA 146)

6.4.61 The western part of the proposed Hinkley Line Entries is in the Vale of Taunton and Quantock Fringes (NLCA 146), which extends south and west across Section H.

6.4.62 The Vale of Taunton and Quantock Fringes (NLCA 146) is described as comprising low-lying fields surrounded by upland landscapes including the Quantock Hills. This character area extends between the Somerset Levels and Moors in the east and the Quantock Hills in the west.

6.4.63 Along the coast, north of the A39, the Quantock Fringes (NLCA 146) are described as a belt of rolling, open windswept landscape with a few scattered trees and small villages surrounded by a rectilinear field pattern. The main settlements lie away from the sea. This landscape is noted as being broken up by low-lying wet pasture where meandering streams meet the coast. Parts of the coastline are described as remote and bleak, incorporating low cliffs, with the existing Hinkley Point Power Station Complex noted as being prominent in the east. Views are described as extending from the coastline towards the Welsh Coast.

6.4.64 The Vale of Taunton and Quantock Fringes (NLCA 146) is also described as comprising mixed farmland generally bound by thick hedgerows commonly on top of banks, and forming irregular, medium-sized fields. Woodland is noted as being sparse and the distribution of hedgerow trees variable.

Quantock Hills (NCA 144)

6.4.65 The Quantock Hills (NCA 144) is approximately 5.5km at its closest point to the southwest of the proposed Hinkley Line Entries.

6.4.66 The Quantock Hills (NCA 144) stretch southeastwards from the Bristol Channel as a 19km long ridge standing high above the surrounding agricultural plain. Extensive views are possible from the open moorland and heath covered ridge across the surrounding landscape.

6.4.67 This NCA is surrounded by the Vale of Taunton and Quantock Fringes (NLCA 46). The eastern slopes of the Quantock Hills are well farmed with a mixture of hedges, pasture and arable land.

6.4.68 The Quantock Hills (NCA 144) encompasses heather moorland including grass, heather and bilberry. The area is described as being largely devoid of settlement resulting in a feeling of space and remoteness. In more sheltered areas an older landscape of scattered farmsteads exists, surrounded by a maze of small, irregular hedged fields connected by winding sunken lanes.

Local Landscape Character Assessment

6.4.69 This part of the chapter provides a review of the local landscape character assessments applicable to Sections A to G of the proposed Bridgwater to Seabank connection and to the proposed Hinkley Line Entries in Section H.

6.4.70 Local Landscape Character Areas (LLCAs) are illustrated at **Volume 5.6.2, Figures 6.2.1 - 6.2.5**. **Insets 6.3 - 6.18** have been included below to illustrate LLCAs and topography within each Section of the Proposed Development.

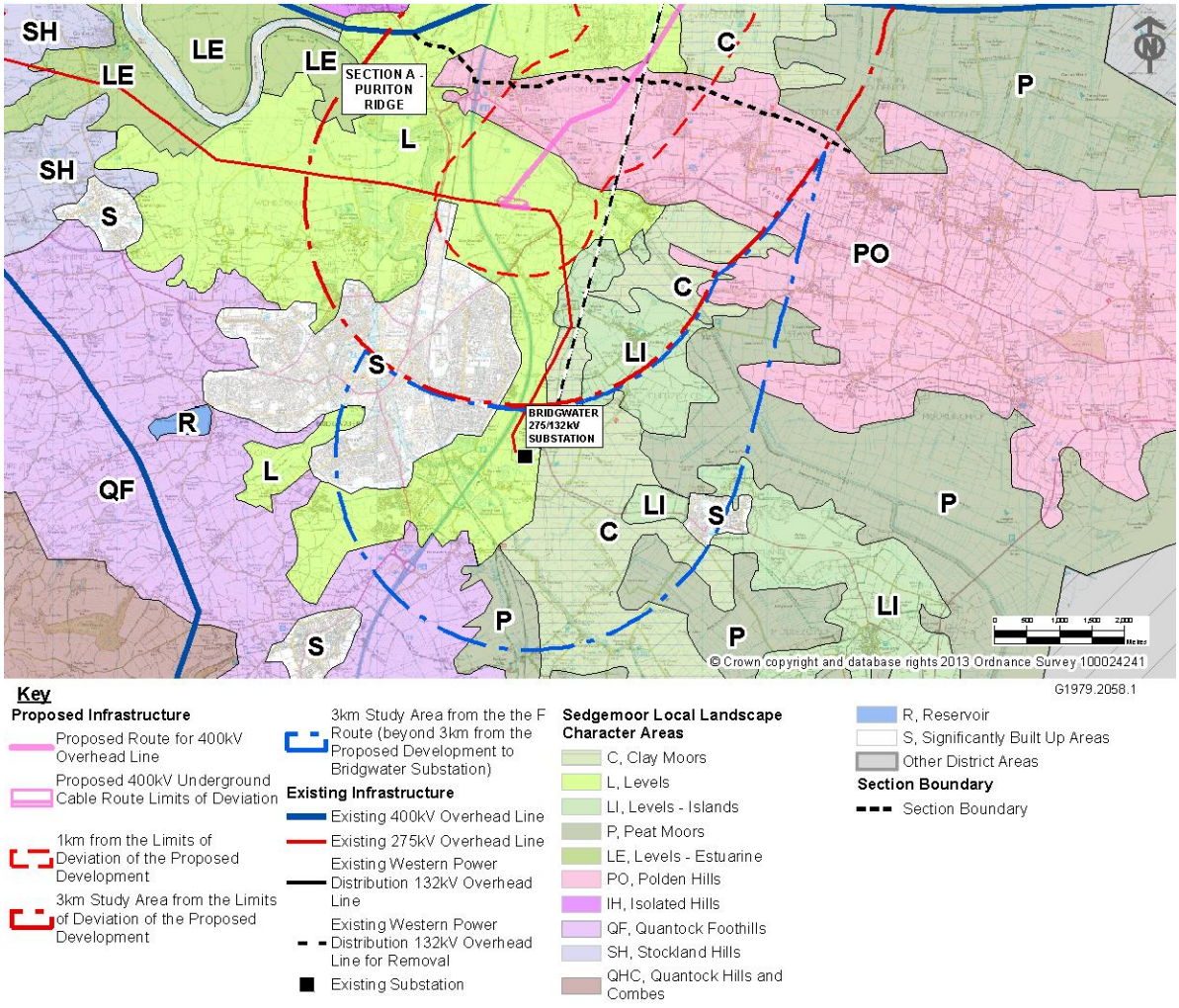
Section A: Puriton Ridge

6.4.71 Sedgemoor District Council's (SDC) Landscape Assessment (Ref. 6.9), characterises the land comprising Section A as the Polden Hills (LLCA PO), and as the Levels (LLCA L), and Clay Moors (LLCA C).

6.4.72 Bridgwater Substation is in the Levels (LLCA L), which extends south of Puriton Ridge to the east and south of Bridgwater. The landscape to the south within 3km

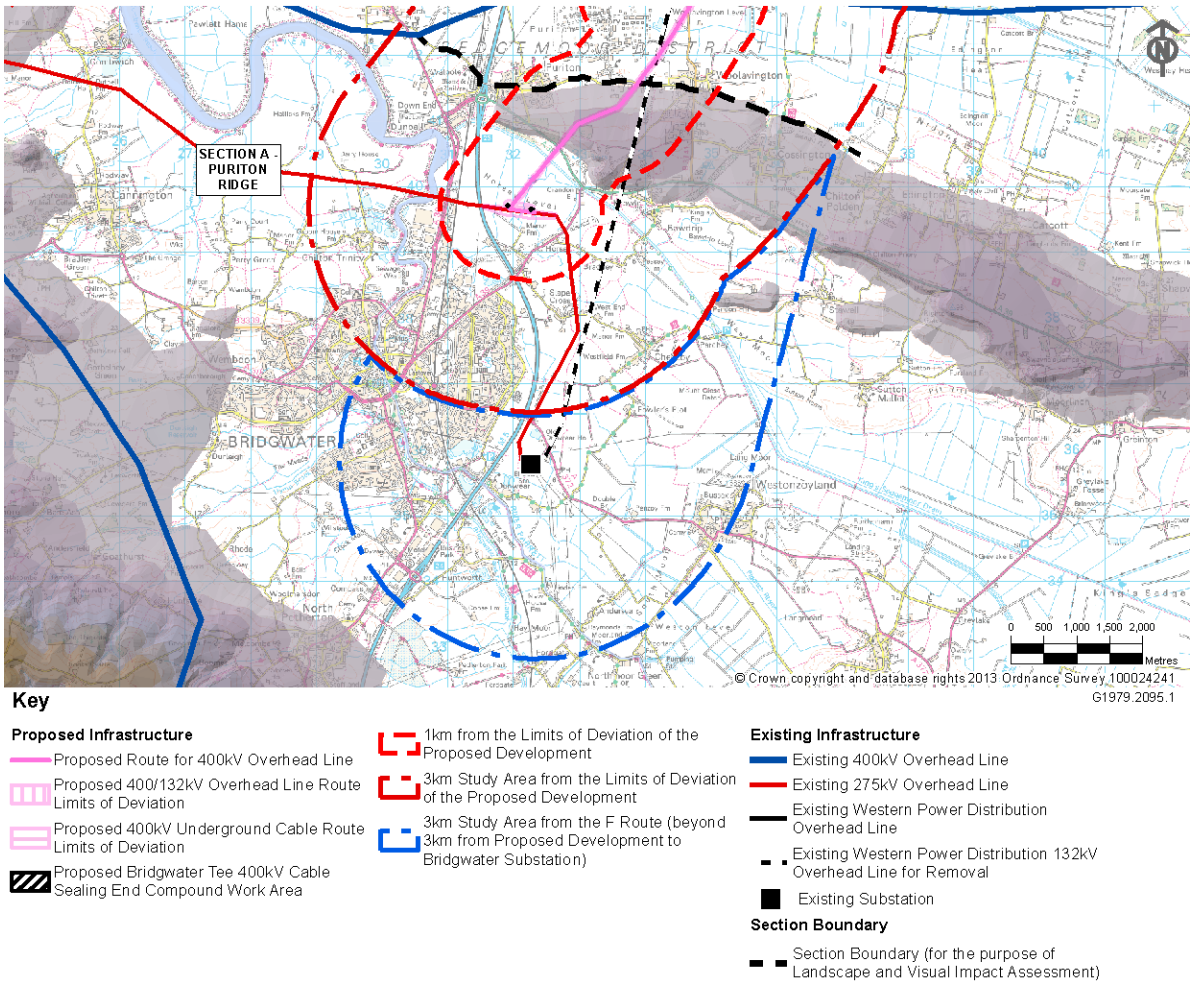
of Bridgwater Substation also comprises the Clay Moors (LLCA C), Peat Moors (LLCA P) and the Quantock Foothills (LLCA QF). The F Route runs north through the Levels and through the Clay Moors (LLCA C) before running north on slightly higher ground characterised as the 'Levels – Islands' (LLCA LI). The F Route continues north through the Levels (LLCA L) and uprising ground in the Polden Hills (LLCA PO).

Inset 6.3 (of **Volume 5.6.2, Figure 6.3.1**): Section A LLCAs



6.4.73 The Polden Hills (LLCA PO) are described as a strong landscape feature with visual prominence from the lowland wetland landscape. The southern side of Puriton Ridge in the Polden Hills (LLCA PO) has steeper slopes and hillocks and the northern side has shallower gradients that lead down to the Somerset Levels and Moors (NCA 142).

Inset 6.4 (of **Volume 5.6.2, Figure 6.3.1**): Section A Topography (See Inset 6.2 for the key illustrating Topography (Above OS Datum))



6.4.74 Woodland is a feature of Puriton Ridge with much of the remaining land in agricultural use. Several settlements are situated along the ridge, particularly to the northern slopes.

6.4.75 The hills have been settled since prehistoric times offering dry land for settlement with easy access to rich fishing, hunting and later agricultural land on the adjacent wetland. There is a strong visual and historical association between the Polden Hills (LLCA PO) and the Levels (LLCA L). Small woodlands are important features of the higher ground. Parkland and estates are evident in a number of locations including Knowle Hall and Knowle Park on the southern side of Puriton Ridge in Section A.

6.4.76 The Levels (LLCA L) are a largely flat landscape around 6m AOD. Field patterns are irregular and defined by sinuous drainage ditches or 'rhynes'. 'Islands' of slightly higher drier ground (characterised by the Sedgemoor Landscape Character Assessment (Ref. 6.9) as the Levels–Islands (LLCA LI) include Chedzoy and Westonzoyland southeast of the proposed 400kV overhead line. A longer history of settlement is noted in the higher Levels and the Sedgemoor Landcape Character Assessment (Ref. 6.9) notes that widespread hedgerow cover gives rise to a more inhabited and civilised character than the adjacent Clay Moors (LLCA C).

6.4.77 As stated in the Sedgemoor Landscape Assessment (Ref. 6.9) in relation to the Levels (LLCA L), the extent of views in the flat Levels landscape is generally dependent upon the extent of tree cover. Low-cut hedgerows often allow long views, and thick hedgerows and trees can obstruct views or help to screen buildings. SDC Landscape Assessment (Ref. 6.9), states that the issue of scale is relevant in the flat Levels landscape. It comments that structures such as electricity pylons demonstrate the more intrusive impact of tall buildings, but also states that the larger modern agricultural buildings and industrial units can tend to be locally prominent due to scale and also the colour of materials.

6.4.78 In Section A, urban and industrial development is concentrated to the west of the M5 in the vicinity of Bridgwater and includes a large Morrison's distribution centre and housing development on the northeastern edge of Bridgwater. SDC Landscape Assessment also comments that:

"the approach to the urban area of Bridgwater…is one where the industrial activities create a negative impression of the town, but large industrial and warehouse buildings are an inevitable element of the urban landscape."

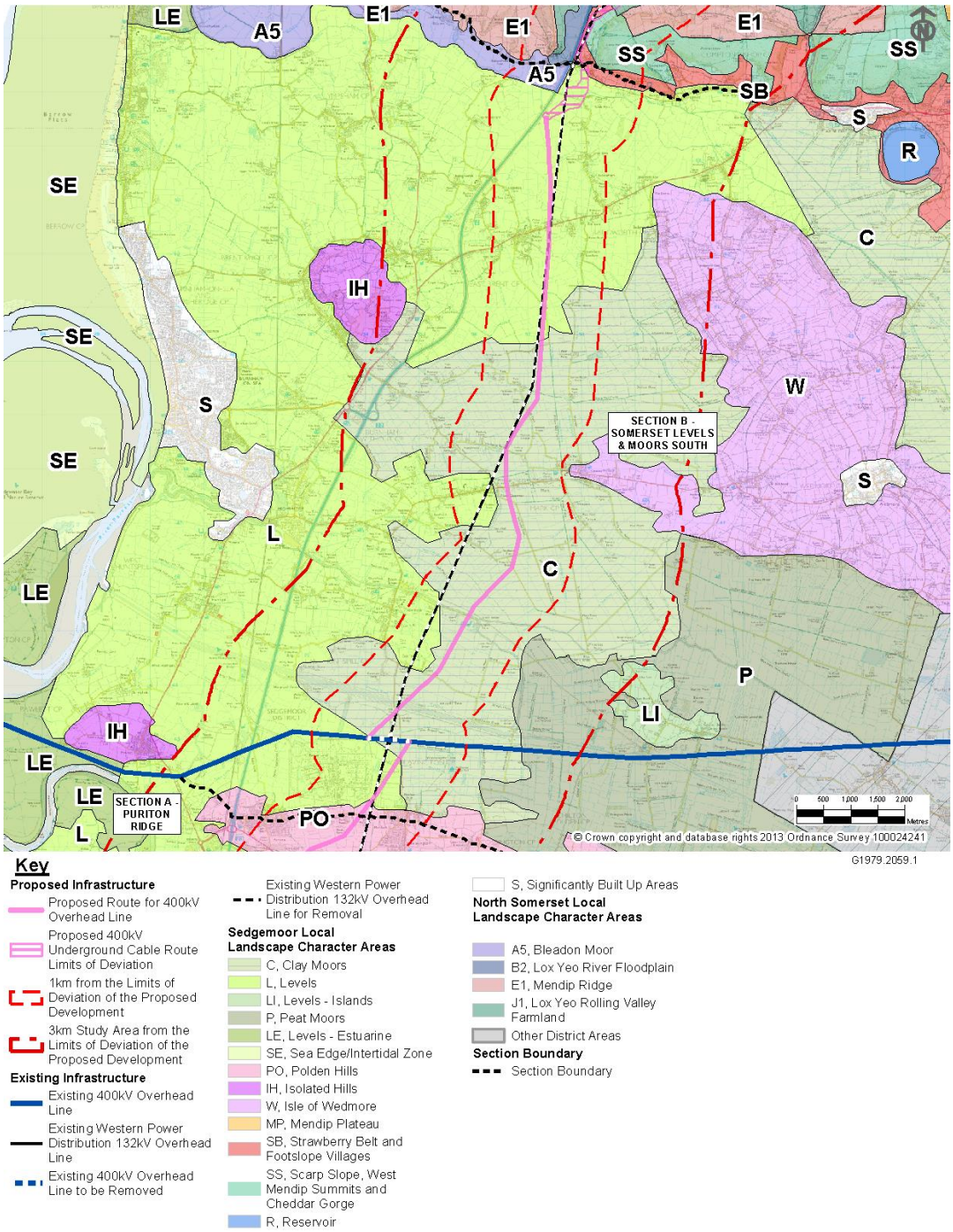
6.4.79 The M5 motorway and the railway line between Taunton and Bristol running through the Levels are noted in SDC Landscape Assessment (Ref. 6.9), as being important view corridors in terms of perceptions of the landscape." (Ref. 6.9)

6.4.80 SDC Landscape Assessment (Ref. 6.9) refers to the visual prominence of the Polden Hills and the variety and richness of its landscape as being a high priority area for conservation. In particular, the western end of the Polden Hills, and the southern hillocks are noted has having a high value in terms of views from lowland areas. This landscape assessment also refers to the A39 running along the ridge as being an 'important' view corridor with views over the Levels and Moors. However views from the western end of the ridge towards Bridgwater, are noted as being towards the mixed industrial and residential areas on the east side of the town, referred to above.

Section B: Somerset Levels and Moors South

6.4.81 SDC Landscape Assessment (Ref. 6.9), characterises the landscape in the southern part of Section B as the Clay Moors (LLCA C) and the Levels (LLCA L), and in the north as predominantly the Levels (LLCA L). Puriton Ridge, (LLCA PO), part of the Polden Hills, forms a strong landscape feature south of Section B and is visually prominent from the low lying landscape.

Inset 6.5 (of **Volume 5.6.2, Figure 6.3.1**): Section B LLCAs



6.4.82 Further north the Clay Moors rise in the east to form the Isle of Wedmore (LLCA W). The Isle of Wedmore (LLCA W) rises to approximately 70m AOD and includes

the settlement of Wedmore and other smaller or linear developments. The area is described as being predominantly pasture with unmanaged hedgerows and small woodlands.

6.4.83 Brent Knoll and Pawlett Hill are characterised as Isolated Hills (LLCA IH). The Isolated Hills LLCA encompassing Brent Knoll extends over 3km from the Proposed Development, and the Isolated Hills LLCA encompassing Pawlett Hill is just beyond 3km from the Proposed Development. These Isolated Hills rise dramatically out of the Levels and Moors. Brent Knoll in particular provides a reference point in the landscape. These hills were a natural location for early settlement and an earthwork survives on the summit of Brent Knoll.

6.4.84 There is a strong visual and historical association between the Lowland Hills and Isolated Hills and the low wetland landscape. The hills have been settled since prehistoric times, forming dry land for settlement with easy access to rich fishing, hunting and later agricultural land on the adjacent wetland. Hedgerows and small woodlands are a feature of the higher ground.

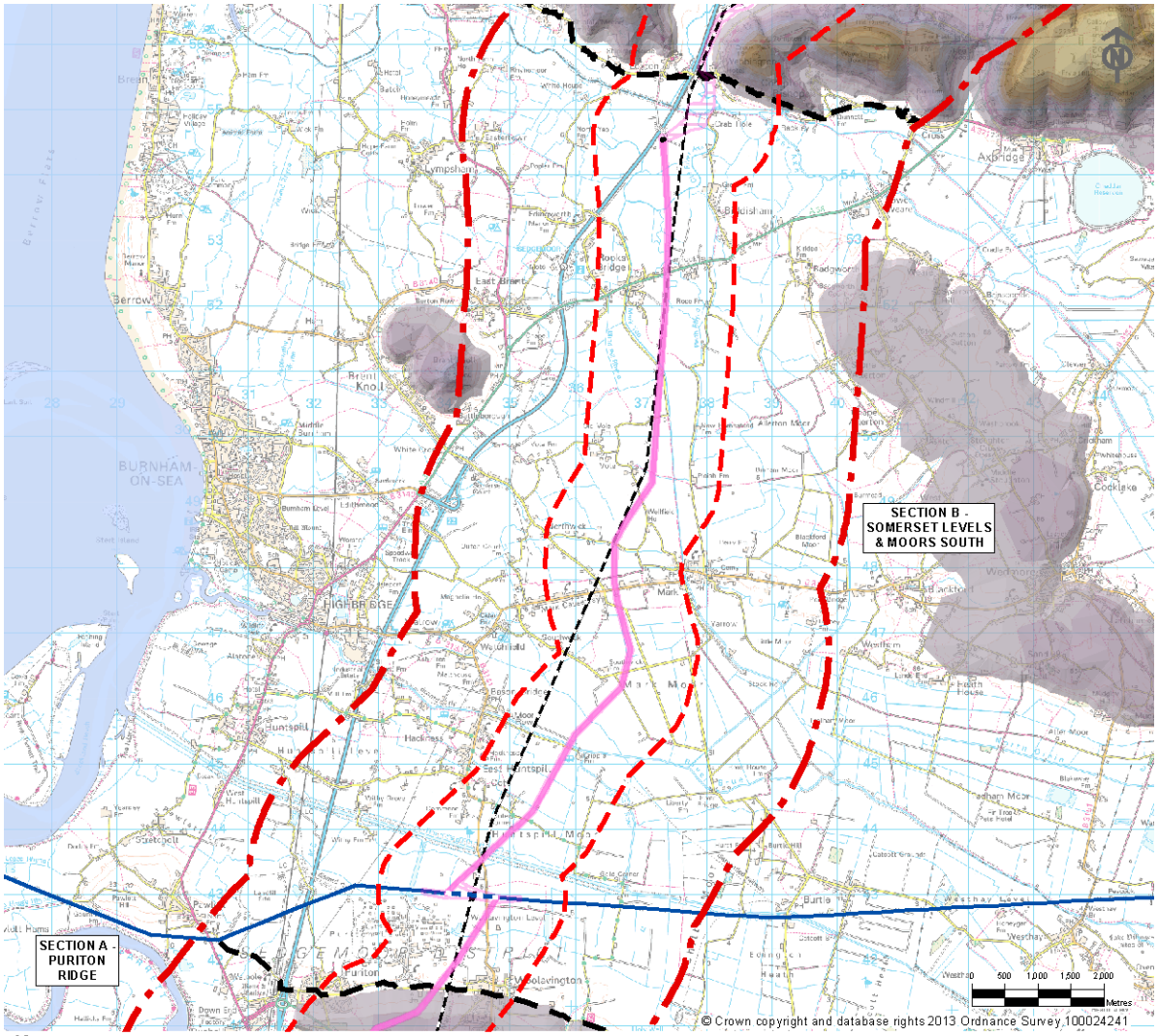
6.4.85 The North Somerset Landscape Character Assessment (Ref. 6.10) characterises the most northern part of Section B west of the M5 as Bleadon Moor (LLCA A5). Bleadon Moor is a small area of land south of Weston-super-Mare and the Mendip Hills AONB, comprising flat lowland pastoral and arable farmland. The field pattern is regular with larger geometric fields to the east and around the margins of the Moor. Drainage channels, ditches and 'rhynes' are not visually dominant due to gappy hedgerows along smaller channels.

6.4.86 As stated in the Sedgemoor Landscape Assessment (Ref. 6.9), and referred to above in relation to the Levels (LLCA L) in Section A also, the extent of views in the flat Levels landscape is generally dependent upon the extent of tree cover. Low-cut hedgerows often allow long views, and thick hedgerows and trees can obstruct views or help to screen buildings.

6.4.87 SDC Landscape Assessment (Ref. 6.9), states that in the traditional Levels landscape church towers were the only significant landmark buildings. Other buildings, which were generally no more than two storeys high usually were not visible at any great distance. This issue of scale is considered in Sedgemoor's Landscape Assessment as being particularly relevant in this flat landscape and structures such as electricity pylons, the armaments factory at Puriton, and the former milk-processing factory at Bason Bridge are noted as demonstrating the more intrusive impact of tall buildings.

6.4.88 The M5 motorway and the main railway from Taunton to Bristol are noted in the SDC Landscape Assessment (Ref. 6.9), as important view corridors in terms of perceptions of the landscape. SDC Landscape Assessment (Ref. 6.9) also states that the opportunity for screening of new low level development as viewed from other areas at low elevation means that capacity for development in the Levels is often higher than in many other areas of the District. This is, however, noted as being dependent on the extent of existing tree cover or potential for this to be reinforced by new planting. SDC Landscape Assessment (Ref. 6.9) highlights that sites which lie close to the higher ground and view corridors such as the ridge of the Polden Hills will also need to take account of views from these vantage points.

Inset 6.6 (of **Volume 5.6.2, Figure 6.3.1**): Section B Topography (See Inset 6.2 for the key illustrating Topography (Above OS Datum))



Key

Proposed Infrastructure

- Proposed Route for 400kV Overhead Line
- Proposed 400/132kV Overhead Line Route Limits of Deviation
- Proposed 400kV Underground Cable Route Limits of Deviation
- Proposed South of the Mendip Hills 400kV Cable Sealing End Compound Work Area
- 1km from the Limits of Deviation of the Proposed Development
- 3km Study Area from the Limits of Deviation Proposed Development

Existing Infrastructure

- Existing 400kV Overhead Line
- Existing Western Power Distribution Overhead Line
- Existing 400kV Overhead Line to be Removed
- Existing Western Power Distribution 132kV Overhead Line for Removal

Section Boundary

- Section Boundary (for the purpose of Landscape and Visual Impact Assessment)

Section C: Mendip Hills AONB

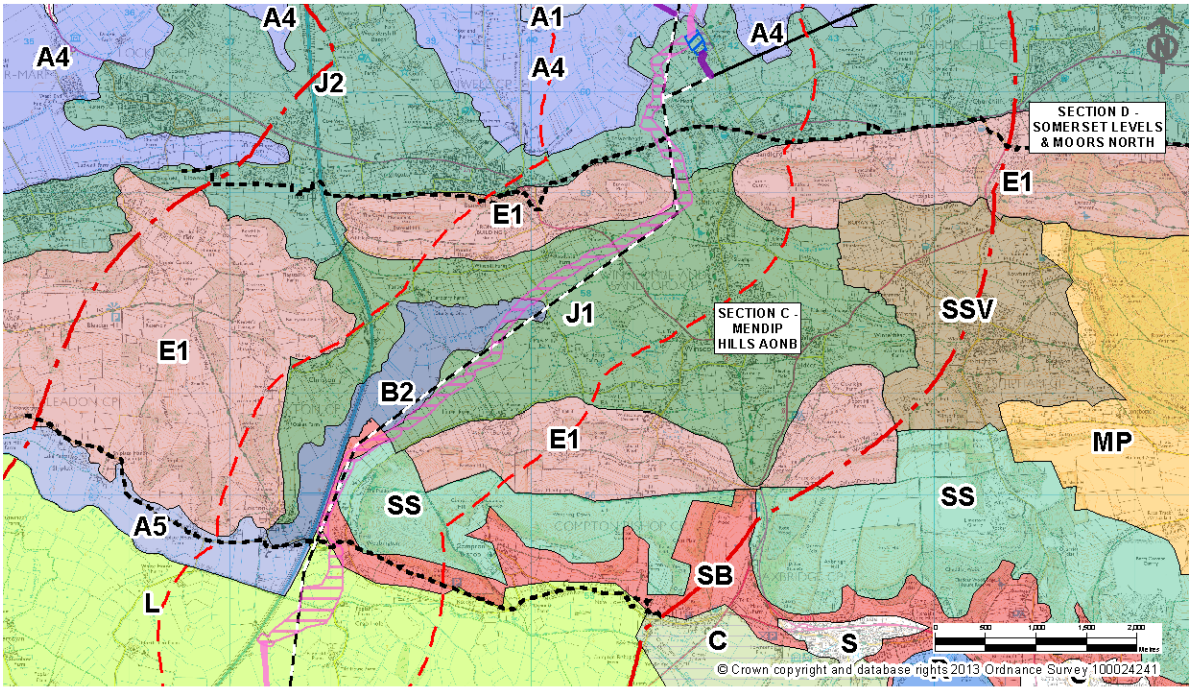
6.4.89 The administrative boundary between Sedgemoor and North Somerset runs along the southern slopes of the Mendip Hills. The relevant parts of the Sedgemoor and North Somerset Landscape Character Assessments are described below.

6.4.90 The Sedgemoor Landscape Character Assessment (Ref. 6.9) characterises the south of the Mendip Hills to the east of the M5 as the Strawberry Belt and Footslope Villages (LLCA SB) on the lower ground and the Scarp Slope, West Mendip Summits and Cheddar Gorge (LLCA SS) on the higher ground.

6.4.91 The Strawberry Belt and Footslope Villages (LLCA SB) refer to the gentle foothills of the Mendip escarpment with fertile, small fields enclosed by hedgerows.

6.4.92 The Scarp Slope, West Mendip Summits and Cheddar Gorge (LLCA SS) within Section C include the Mendip Hills ridgeline which extends west to Crook Peak. A mix of open downland, heath, deciduous woodland and pasture is noted across the relatively steep hillside.

Inset 6.7 (of **Volume 5.6.2, Figure 6.3.1**): Section C LLCAs



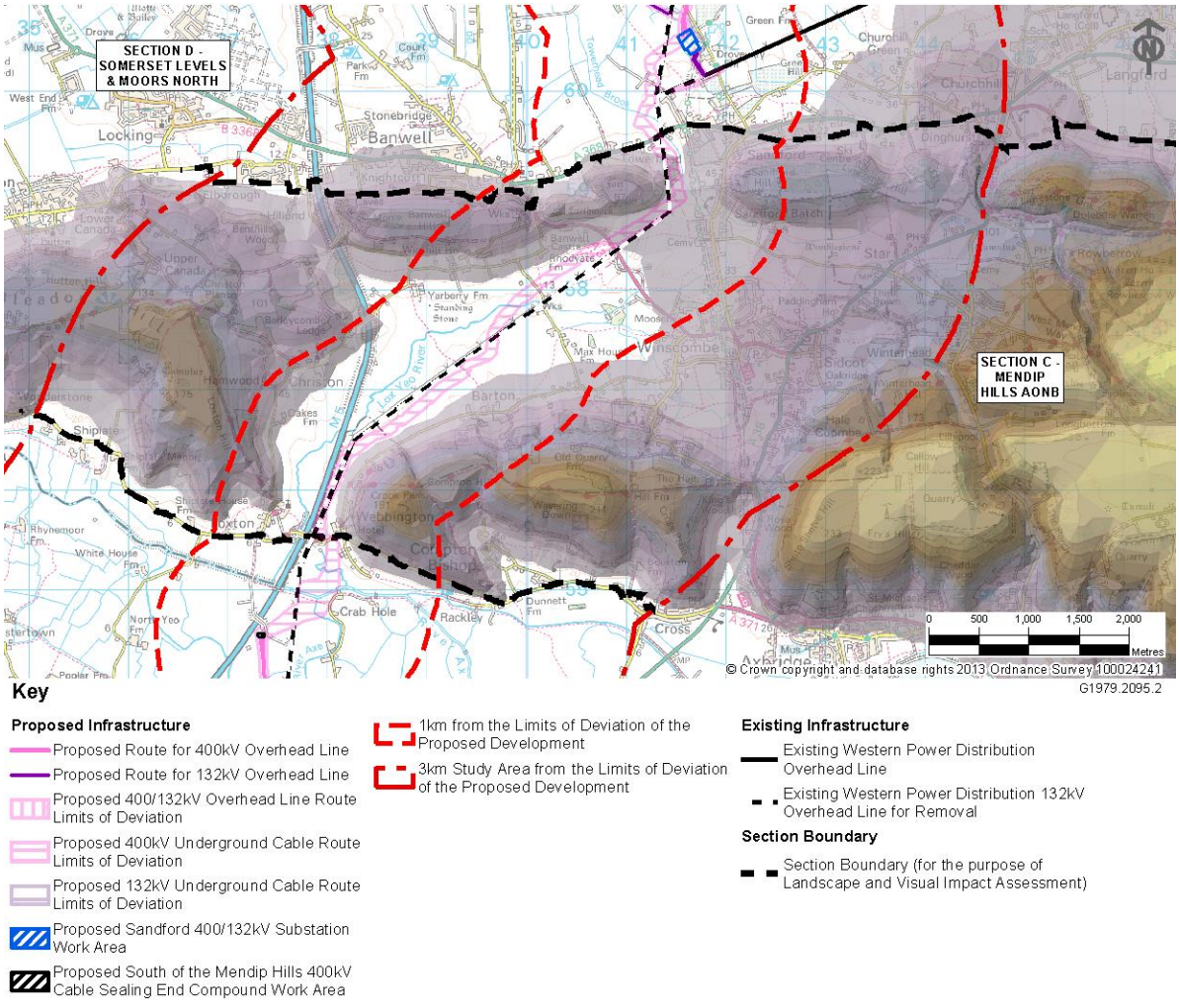
6.4.93 The North Somerset Landscape Character Assessment (Ref. 6.10) encompasses the remainder of Section C, which includes the Lox Yeo Valley, the area to the west of the M5 and the central and northern parts of the Mendip Hills. The Lox Yeo River

Flood Plain (LLCA B2) and the Lox Yeo Rolling Valley Farmland (LLCA J1) cover the lower lying land running through the Mendip Hills.

6.4.94 The Lox Yeo River Flood Plain (LLCA B2) is described as a narrow area following the Lox Yeo River cutting through the Mendip Hills. The open flat landform contrasts with the valley sides rising to limestone ridges. It is a rural landscape with large open fields bounded by low managed hedges. The M5 runs through the valley, although the area is noted as still retaining a remote feel. Views are generally channelled along the valley and up the valley sides.

6.4.95 The Lox Yeo Rolling Valley Farmland (LLCA J1) encompasses the Lox Yeo River which creates a broad valley between wooded limestone outcrops that create a backdrop and a feeling of partial enclosure. The area is described as a pastoral landscape with views to the wooded ridges of the Mendip Hills. Fields are bounded by thick hedges with hedgerow trees and the area is divided by a complex network of winding rural roads and deep sunken lanes. Settlement is concentrated to the east of the study area at Winscombe, which is an area of slightly raised ground, with dispersed farmsteads throughout along winding roads.

Inset 6.8 (of **Volume 5.6.2, Figure 6.3.1**): Section C Topography (See Inset 6.2 for the key illustrating Topography (Above OS Datum))



6.4.96 The Mendip Ridge (LLCA E1) within the Limestone Ridges and Coombes Landscape Character Type includes Bleadon Hill in the west, Banwell Hill to the north and Barton Hill and Hale Coombe to the south. The Mendip Ridge (LLCA E1) comprises an extensive series of limestone ridges running east to west across the southern end of North Somerset. This area is characterised by steep scarp slopes covered in broadleaved and mixed woodland, and open grassland plateaus.

6.4.97 The northern most part of Section C includes a small part of the River Yeo Rolling Valley Farmland (LLCA J2), which is an extensive area of undulating lowland north of the Mendip Hills. This area is described as a rural pastoral landscape with irregular medium sized fields divided by hedgerow with frequent hedgerow trees.

Section D: Somerset Levels and Moors North

6.4.99 North Somerset Council's (NSC) Landscape Character Assessment (Ref. 6.10) characterises the most southern part of Section D as the River Yeo Rolling Valley Farmland (LLCA J2).

6.4.100 The River Yeo Rolling Valley Farmland (LLCA J2) extends west to include Banwell, Locking and Hutton, and east to include Sandford, Churchill, Langford and Lower Langford, and Brinsea and Congresbury further north. This character area is described as an extensive area of gently undulating lowland between 5m and 60mAOD, along the northern edge of the Mendip Limestone Ridges and Combes. In the east undulating lowland forms a valley enclosed by wooded limestone ridges including the Mendip Ridge in the south and Cleeve Ridge in the north. This character area is described as a peaceful pastoral landscape with thick maintained hedgerows and frequent mature hedgerow trees. Willows line the rivers and streams running through this area.

6.4.101 Further west there are cider orchards north of Sandford and grazing land north of Banwell. The rural valley character of the area in the east diminishes in the west, where land use is more diverse and there is settlement along the A368 and A371 at the base of the Mendip Ridge.

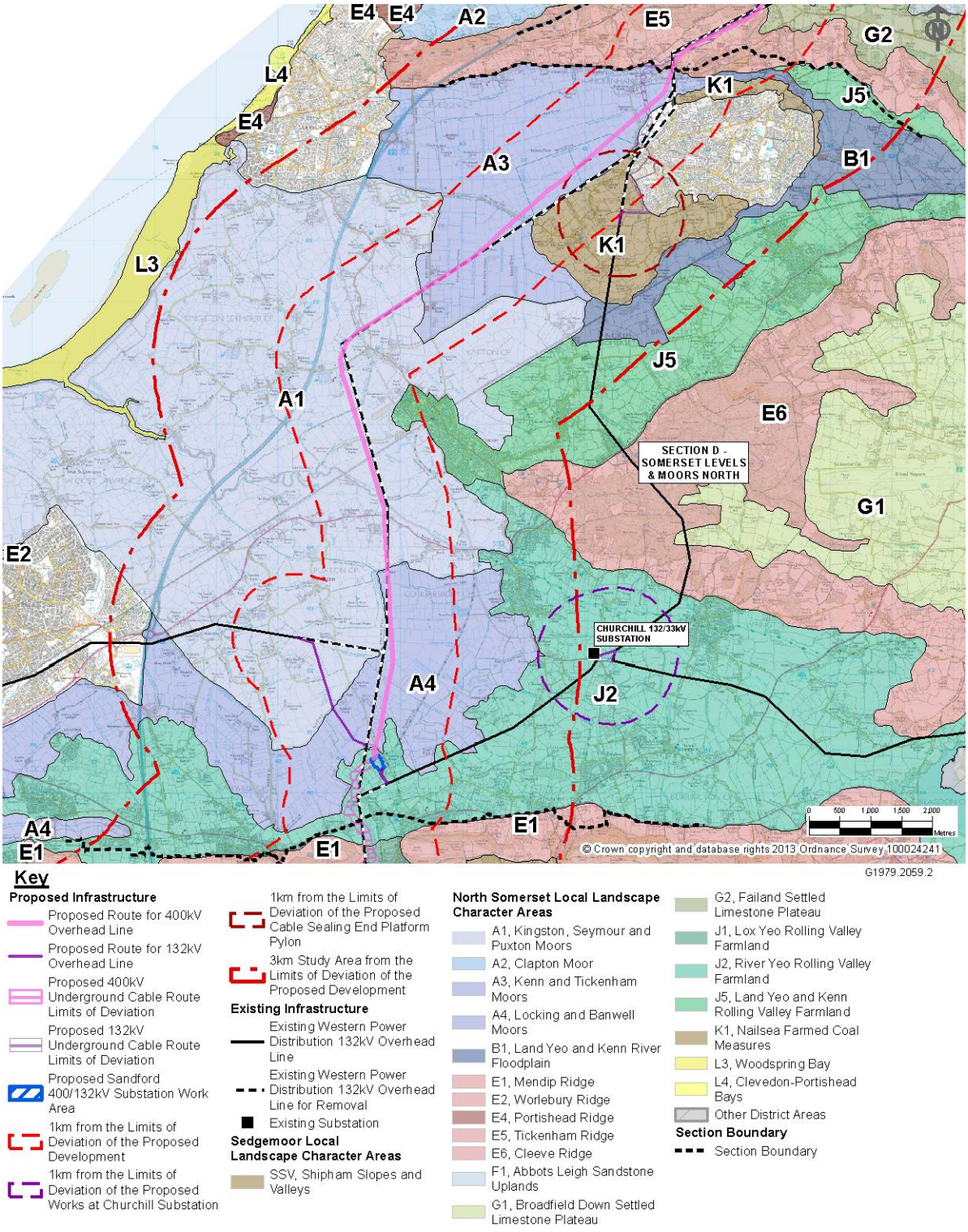
6.4.102 North of the River Yeo Rolling Valley Farmland the landscape in Section D is characterised as the Moors Landscape Character Type, which extends north across the majority of Section D towards Tickenham Ridge.

6.4.103 The Moors comprises a broad area of low-lying reclaimed wetland on the west side of North Somerset with areas to the north and south separated by limestone ridges. The Moors are described as a flat pastoral landscape with hedgerows of varying condition, frequent hedgerow trees and an extensive drainage system of ditches and 'rhynes'. The area is remote and isolated in places.

6.4.104 The Moors are further characterised into the following LLCAs illustrated on **Inset 6.9** overleaf:

- Locking and Banwell Moors (LLCA A4) in the south;
- Kingston Seymour and Puxton Moors (LLCA A1) across the central part of this Section; and
- Kenn and Tickenham Moors (LLCA A3) in the north.

Inset 6.9 (of **Volume 5.6.2, Figure 6.3.1**): Section D LLCAs



6.4.105 The Locking and Banwell Moors (LLCA A4) extend as low-lying generally flat and predominantly pastoral land between Congresbury in the east and Weston-Super-Mare in the west. The field pattern is generally regular and geometric, defined by hedgerow and reed-filled drainage ditches or 'rhynes' with numerous trees including pollarded willow and some poplar shelterbelts. The majority of the ditches

or ‘rhynes’ are noted as being associated with mixed hedgerows that have grown up over them, whilst larger channels have remained open. The area east of the M5 is more remote and rural in character, particularly as settlement is sparse and the area is occasionally crossed by straight rural roads, only accessible by foot further east.

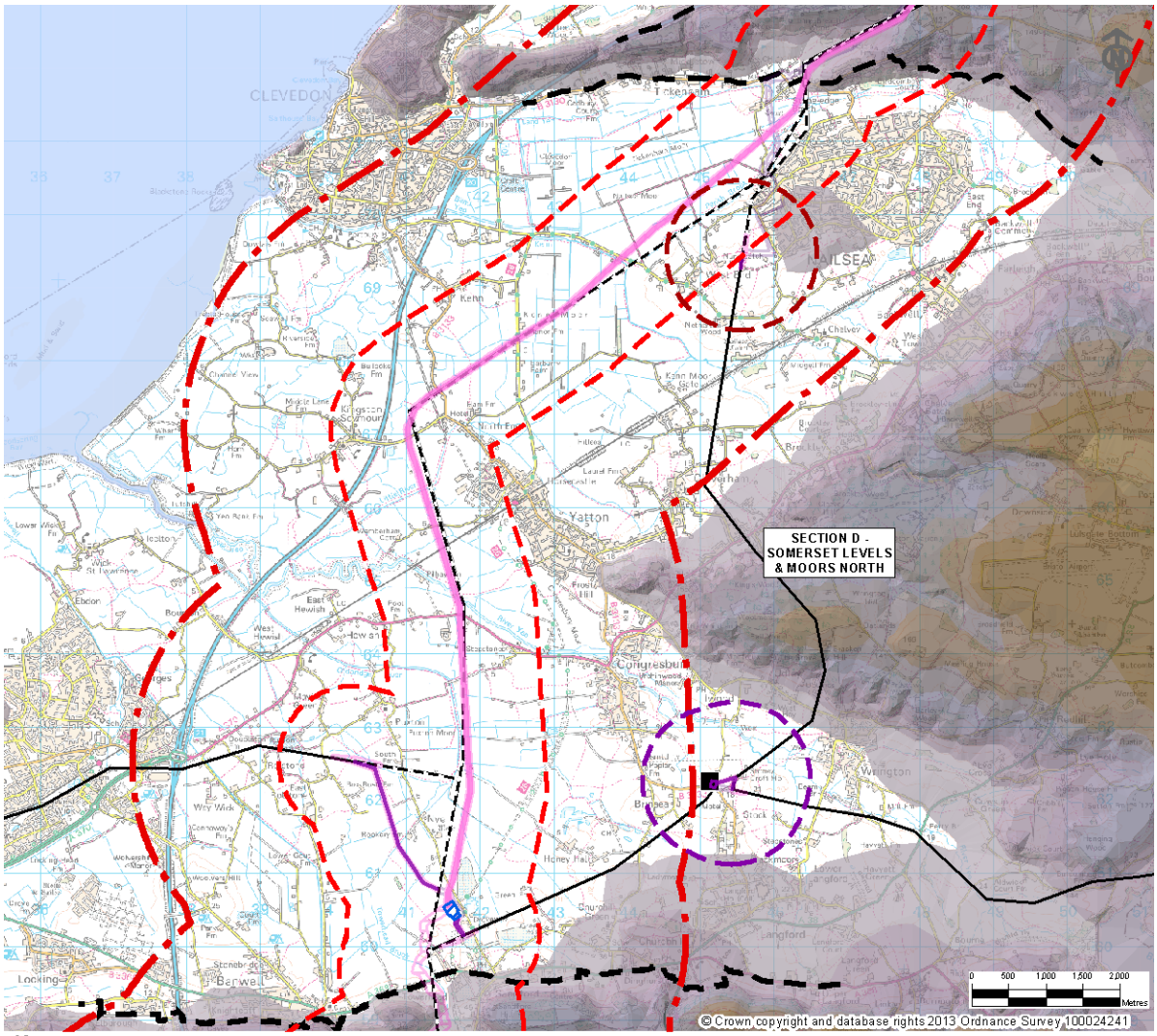
6.4.106 The Kingston Seymour and Puxton Moors (LLCA A1) extend across the central part of this Section and represent the largest character area in the Moors landscape character type. The earlier enclosure, presence of settlement and generally more irregular field pattern (partly defined by older sinuous drainage ditches) distinguish the Kingston Seymour and Puxton Moors (LLCA A1) from other flat low-lying Moor landscapes that are predominantly pastoral and remote in places.

6.4.107 The Kingston Seymour and Puxton Moors (LLCA A1) landscape is described as being semi-enclosed with trees and hedgerows framing views to the wooded limestone ridges. Hedgerows are noted as being intermittent, and in places have formed from regenerated scrub growing over ditches and ‘rhynes’. The M5 runs through the centre of this character area and is noted as having a visual and audible impact on the rural character of adjacent land. Masts and signage associated with the M5 corridor are also noted.

6.4.108 The Kenn and Tickenham Moors (LLCA A3) is also a flat, low-lying, predominantly pastoral and remote landscape. This area is however influenced by Nailsea in the east and settlement at the base of Tickenham Ridge in the north. The area also gently rises northwest to Clevedon. There is very little settlement in this character area with the few roads including Nailsea Wall running east west between West End and Clevedon, and Causeway running north south between Nailsea and Tickenham. Moving traffic on the M5 motorway in the west is noted as being visible.

6.4.109 Ditches and ‘rhynes’ are regular and rectilinear in this character area, particularly to the north and east where there are fewer hedgerows. Hedgerows are noted as being fragmented, many originating as scrubbed over ditches, with many hedgerow trees. Isolated remnants of ancient woodland are noted in this character area along with some small plantation woodlands. Tree cover including orchards is evident south of Kenn and north of Claverham Drove.

Inset 6.10 (of **Volume 5.6.2, Figure 6.3.1**): Section D Topography (See Inset 6.2 for the key illustrating Topography (Above OS Datum))



6.4.110 Higher ground to the east of the lower lying Moors landscape is characterised into the following LLCAs:

- Land Yeo and Kenn Rolling Valley Farmland (LLCA J5);
- Cleeve Ridge (LLCA E6); and
- Nailsea Farmed Coal Measures (LLCA K1).

6.4.111 These character areas and the interrelationship between the adjacent Moors landscape are described below.

6.4.112 The Land Yeo and Kenn Rolling Valley Farmland (LLCA J5) includes two parcels of land separated by the Land Yeo and Kenn Rivers Floodplain (LLCA B1), which follows the course of the Land Yeo, Kenn River and River Avon further east. One of the parcels of land in the Land Yeo and Kenn Rolling Valley Farmland encompasses the large settlement of Yatton (largely surrounded by the low-lying Moors) in the central part of Section D, and the large village of Claverham linked by winding roads and the A370. This parcel of land extends northeastwards to the south and southeast of Nailsea.

6.4.113 The Land Yeo and Kenn Rolling Valley Farmland (LLCA J5) comprises a gently undulating rural pastoral landscape divided by an irregular and intact hedgerow pattern. The wide valley is framed by wooded ridges to the north and south. The rural peaceful ambience of this LLCA is described as being strongest in the south, where there are thick hedgerows, frequent mature hedgerow trees and the wooded backdrop of the limestone ridges.

6.4.114 The Cleeve Ridge character area (LLCA E6) runs eastwards from Yatton and is a limestone ridge which rises from the rolling valley farmland to a flat limestone plateau characterised as the Broadfield Down Settled Limestone Plateau (LLCA G1).

6.4.115 Cleeve Ridge comprises distinctive steep escarpment slopes rising above the low-lying Moors and Valleys providing a backdrop to the lower ground. Ancient woodland and large scale mixed and deciduous plantation woodland cover these slopes. This wooded landscape is intimate and enclosed contrasting with occasional wide views out over the surrounding lowland Moors and Valleys and to the distant Bristol Channel. The area is described as being largely inaccessible with only a few rural roads winding up the ridge through coombes. At the summit of the ridge open elevated views contrast with enclosed views on narrow winding coombes. Settlement is around the periphery of Cleeve Ridge and pasture land extends across the lower slopes. An Iron Age Hill Fort stands at Cadbury Hill north of Congresbury.

6.4.116 Beyond Cleeve Ridge is the Broadfield Down Settled Limestone Plateau (LLCA G1) approximately 4.5km east of the proposed 400kV overhead line. This open, elevated limestone plateau has distant views to lowland and wooded ridges.

6.4.117 In the northern part of Section D is the Nailsea Farmed Coal Measures (LLCA K1), which extends across land south and southwest of Nailsea including West End. This LLCA also includes land around the northern periphery of this town. The Nailsea Farmed Coal Measures (LLCA K1) is described as a raised plateau or ‘island’ between 5m and 30mAOD rising from the Moors in the west and the river floodplain in the east. Occasional extensive views are possible from this area over the flat extensive Moors. This predominantly pastoral landscape is described as remote and intimate with irregular and sinuous, small to medium scale fields divided by dry stone walls and hedgerows, often overgrown. On lower ground in the west fields are bound by ditches and ‘rhynes’.

6.4.118 Farms and residential properties in the Nailsea Farmed Coal Measures (LLCA K1) are dispersed or in small groups along narrow rural roads. NSC Landscape

Character Assessment (Ref. 6.10) states that this character area comprises a generally remote intimate scale landscape; although notes that the urban edge of Nailsea is highly visible in places..

6.4.119 The northern boundary of Section D is defined by Tickenham Ridge in Section E. This prominent landscape feature extends east to west as steeply rising ground above the Somerset Moors.

6.4.120 Views from Section D extend to the wooded hills including Tickenham Ridge in the north and Cleeve Ridge in the east. High ground partly encloses this landscape.

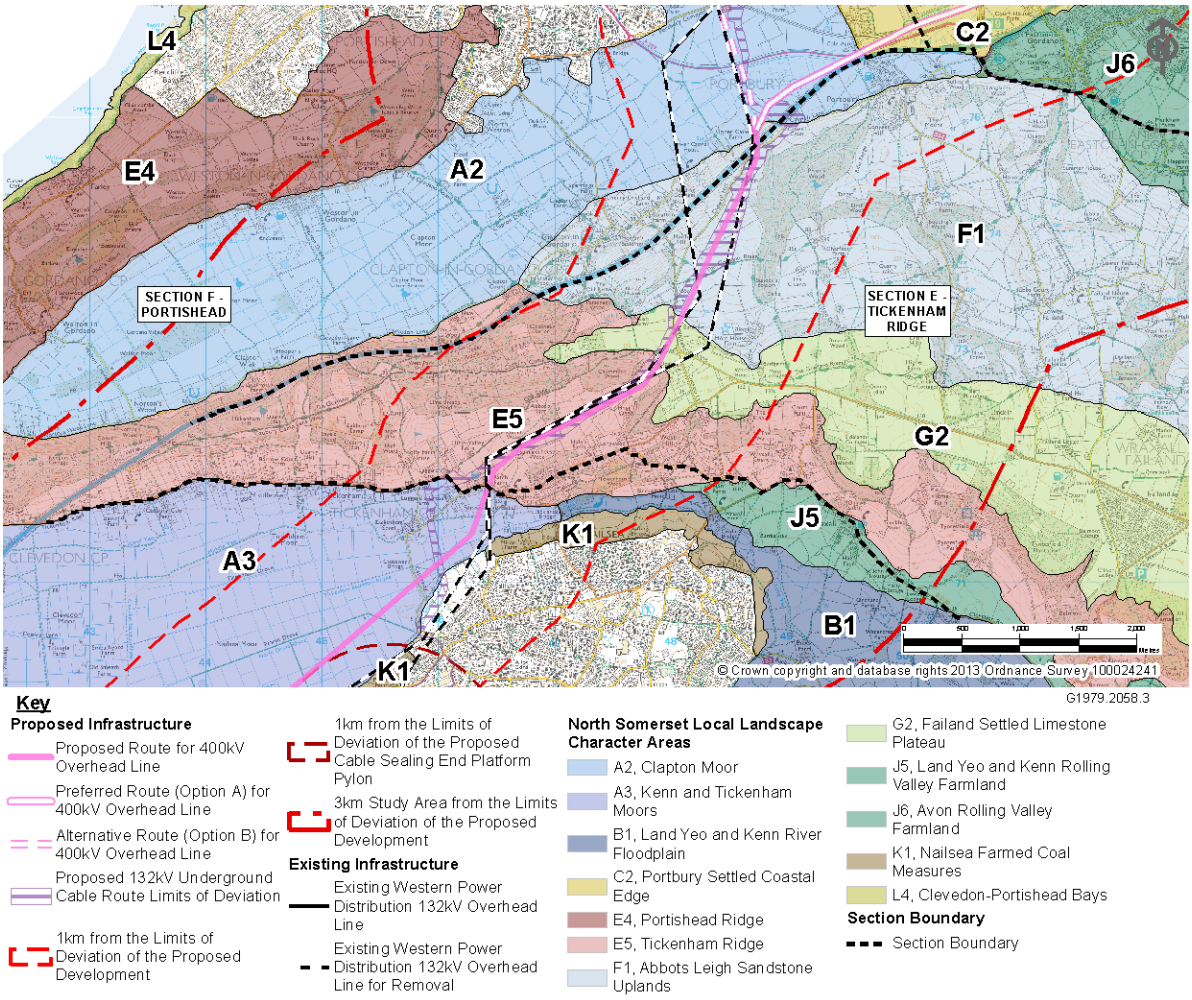
6.4.121 In the southeastern part of Section D Churchill Substation is 3km directly east of the proposed 400kV overhead line, and is in the River Yeo Rolling Valley Farmland (LLCA J2), which borders the Locking and Banwell Moors (LLCA A4) 1km to the west. The landscape to the north within 1.5km of the Churchill Substation comprises Cleeve Ridge (LLCA E6).

Section E: Tickenham Ridge

6.4.122 The North Somerset Landscape Character Assessment (Ref. 6. characterises Section E as the Tickenham Ridge (LLCA E5), the Failand Settled Limestone Plateau (LLCA G2) and the Abbots Leigh Sandstone Uplands (LLCA F1).

6.4.123 Tickenham Ridge (LLCA E5) covers the southern part of Section E. It is described as an elevated ridge of Carboniferous Limestone and Mercia Mudstone that rises steeply to a substantial area of high ground south of Bristol. The southern boundary of this LLCA is defined by the B3130 and 50m contour whilst the top of the ridge defines this LLCA in the north.

Inset 6.11 (of **Volume 5.6.2, Figure 6.3.1**): Section E LLCAs



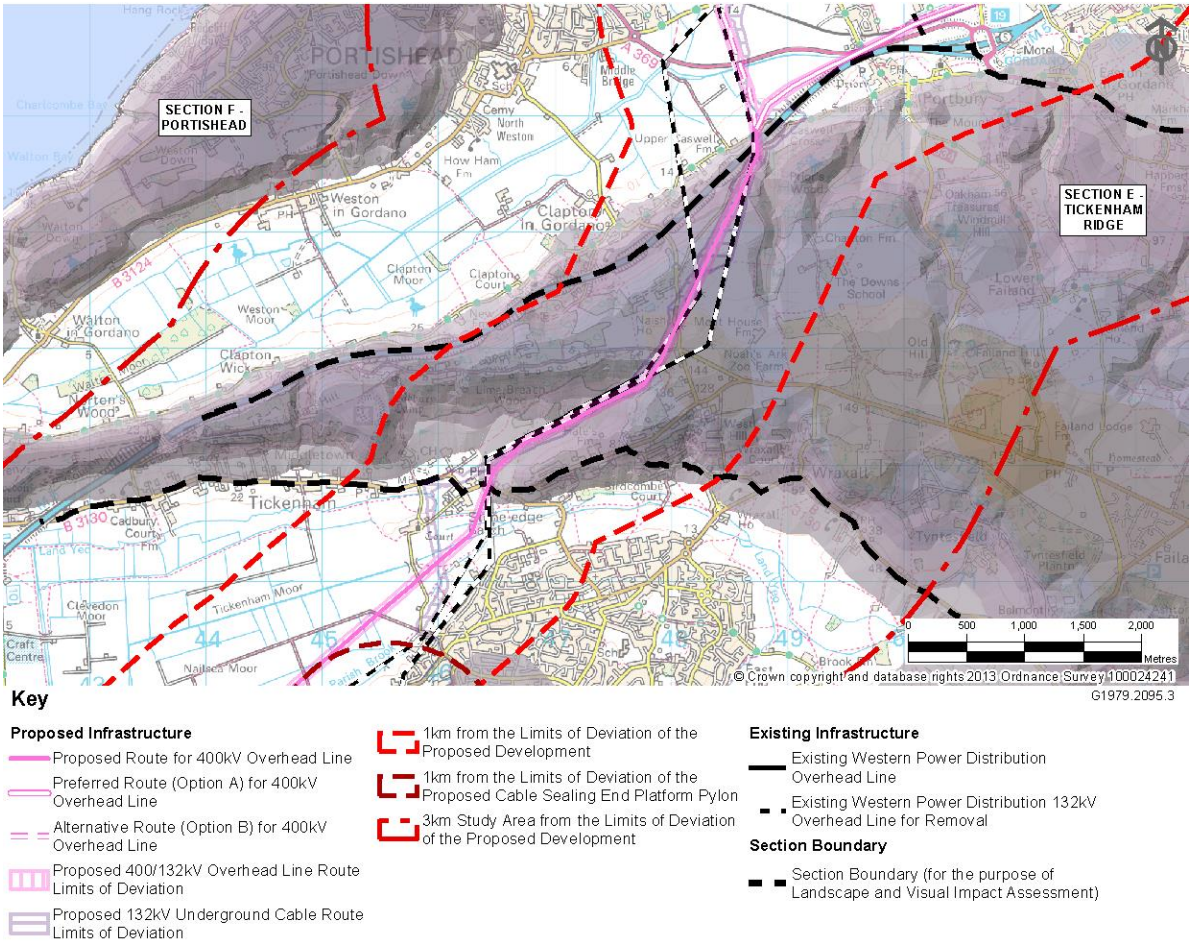
6.4.124 Tickenham Ridge provides a distinctive backdrop to the flat Moors landscape in the south. Wide views over the open lowlands are described as contrasting with views enclosed by intricate wooded slopes in part of this LLCA.

6.4.125 The area is noted in the North Somerset Landscape Character Assessment (Ref. 6.10) as being largely peaceful and secluded. There are extensive areas of broad-leaved woodland much of which is Ancient Woodland. Parkland is also noted in large historic estates; Tyntesfield Registered Park and Garden is approximately 3km southeast of the route of the proposed 400kV overhead line on the ridge and

Clevedon Court, also a Registered Park and Garden, is approximately 4km to the west.

6.4.126 The North Somerset Landscape Character Assessment (Ref. 6.10) description for the Tickenham Ridge (LLCA E5) identifies one of the 'Forces for Change' being a demand for tall vertical structures in this area referred to as visually prominent from lowland areas.

Inset 6.12 (of **Volume 5.6.2, Figure 6.3.1**): Section E Topography (See Inset 6.2 for the key illustrating Topography (Above OS Datum))



6.4.127 The western extent of the Failand Settled Limestone Plateau (LLCA G2) extends across high ground through the central part of Section E, between Tickenham Ridge in the south and the Abbots Leigh Sandstone Uplands in the north. This area is a level or gently shelved upland landscape with large regular open fields with variable hedgerows. A large proportion of this LLCA, particularly in the east, is used for leisure including Bristol and Clifton Golf Club. Other parts of the area are noted as being more rural and pastoral with some ancient woodland and grassland.

6.4.128 The northern part of Section E comprises the western extent of the Abbots Leigh Sandstone Uplands (LLCA F1), which is described as an undulating upland area that falls to the north. Wide views extend over the Bristol Channel and the urban areas of Bristol further east. The area is rural comprising mainly pasture with woodland and is described as having a peaceful ambience. This landscape is

semi-enclosed with rolling hills and valleys and sinuous woodland blocks and belts. Ancient woodlands occur frequently and include Prior's Wood. Woodland is generally easily accessible for walkers via a network of footpaths including along the steep coombe valleys.

6.4.129 The North Somerset Landscape Character Assessment (Ref. 6.10) description for the Sandstone Uplands (LLCA F1) identifies the pressures for masts and other tall structures in this area.

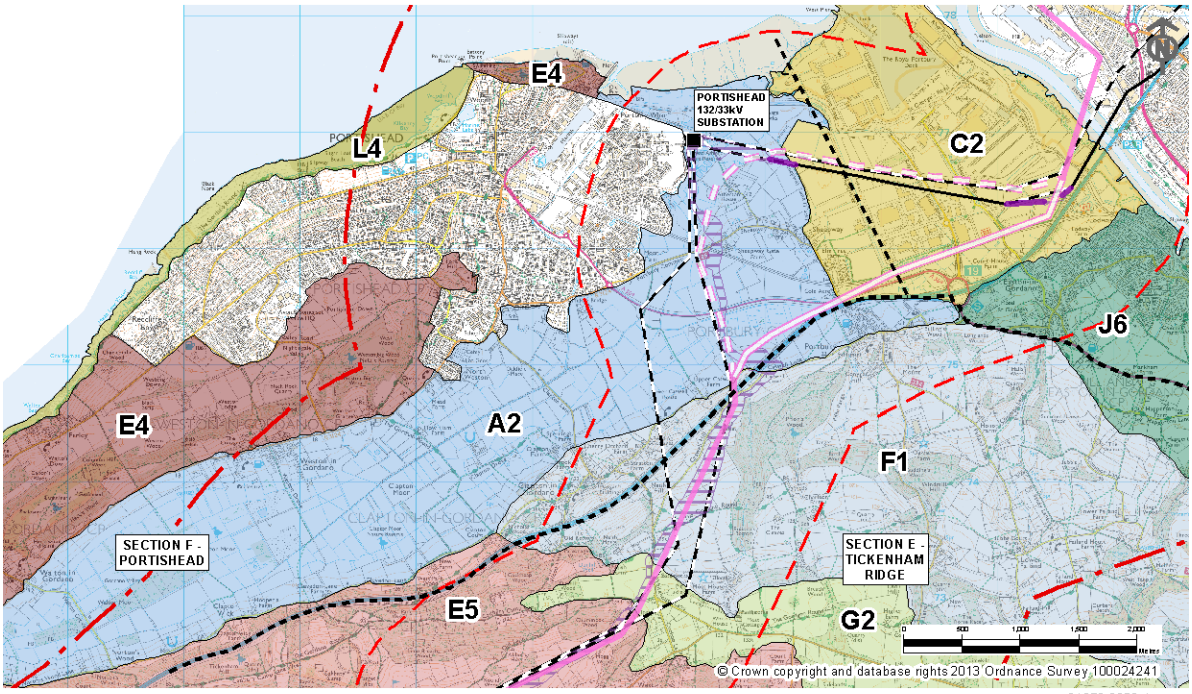
6.4.130 Settlement within the Abbots Leigh Sandstone Uplands (LLCA F1) comprises scattered farmsteads and a few villages linked by winding rural roads, for example Portbury on lower ground at the northern edge of the character area in Section E.

6.4.131 Portbury to the north of Caswell Lane and High Street, along with farmland and sports fields to the east and west of this settlement are included within Clapton Moor (LLCA A2). Clapton Moor extends to the north and northwest across lower lying ground in Section F, and is discussed further overleaf.

Section F: Portishead

6.4.132 The North Somerset Landscape Character Assessment (Ref. 6.10) characterises Section F as the Abbots Leigh Sandstone Uplands (LLCA F1), Clapton Moor (LLCA A2), Portbury Settled Coastal Edge (LLCA C2) and Portishead Ridge (LLCA E4).

Inset 6.13 (of **Volume 5.6.2, Figure 6.3.1**): Section F LLCAs

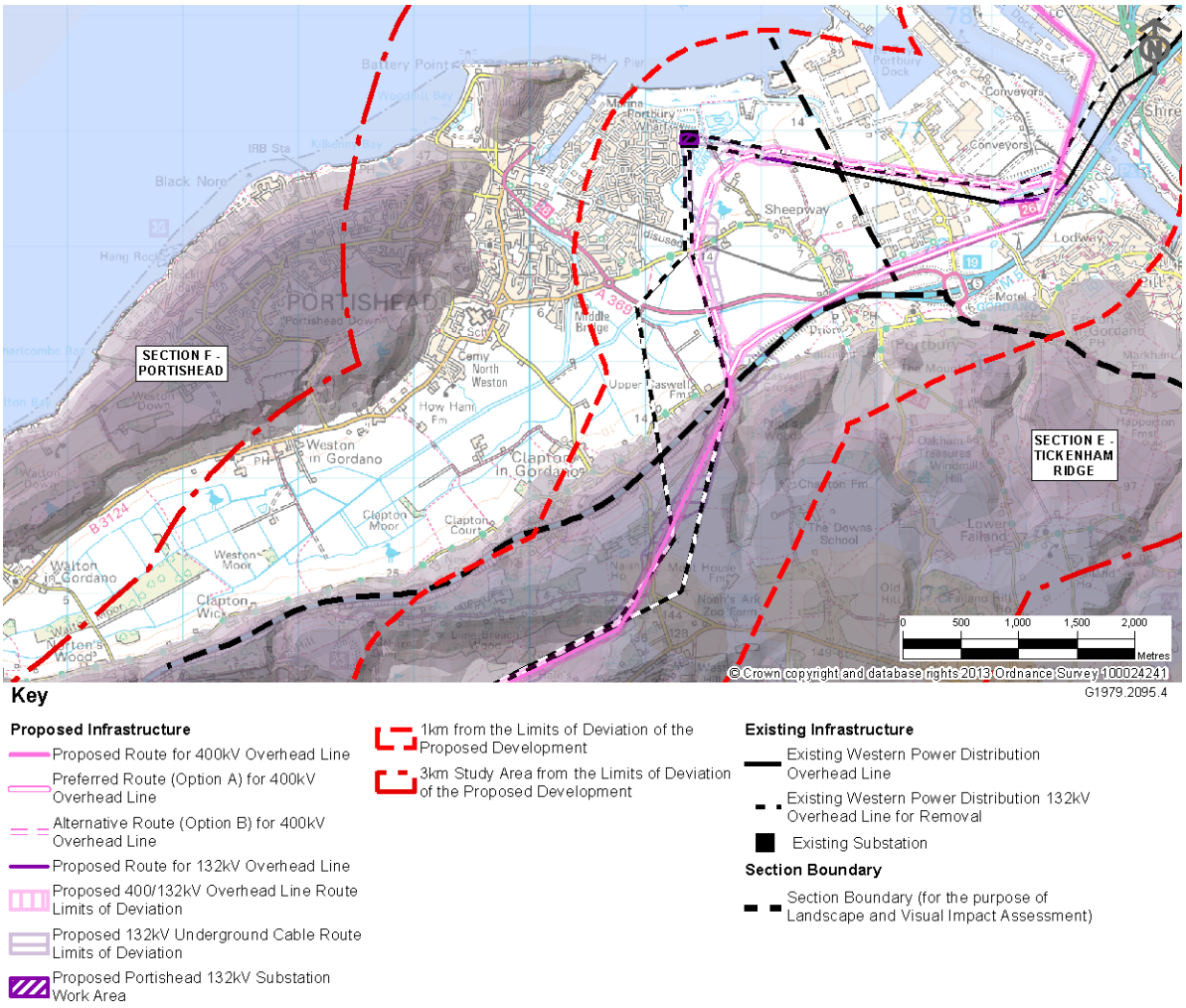


6.4.133 The most southern extent of Section F is characterised as the western most part of the Abbots Leigh Sandstone Uplands (LLCA F1) which extends west, and east into the adjacent Section E. This LLCA is described as an undulating upland area that falls to the north. The area is rural, mainly pasture with woodland. Settlement comprises scattered farmsteads and a few villages linked by winding rural roads, for example Clapton in Gordano north of the M5. Wide views are noted as extending over the Bristol Channel.

6.4.134 The North Somerset Landscape Character Assessment (Ref. 6.10) description for the Sandstone Uplands landscape type identifies one of the 'Forces for Change' being the pressures for masts and other tall structures in this area.

6.4.135 The majority of Section F is in the Clapton Moor (LLCA A2) which comprises Clapton Moor and the Gordano Valley enclosed by the steep slopes of limestone ridges to the north and south.

Inset 6.14 (**of Figure 6.3.1**): Section F Topography (See Inset 6.2 for the key illustrating Topography (Above OS Datum))



Key

Proposed Infrastructure

- Proposed Route for 400kV Overhead Line
- Preferred Route (Option A) for 400kV Overhead Line
- Alternative Route (Option B) for 400kV Overhead Line
- Proposed Route for 132kV Overhead Line
- Proposed 400/132kV Overhead Line Route Limits of Deviation
- Proposed 132kV Underground Cable Route Limits of Deviation
- Proposed Portishead 132kV Substation Work Area
- 1km from the Limits of Deviation of the Proposed Development
- 3km Study Area from the Limits of Deviation of the Proposed Development

Existing Infrastructure

- Existing Western Power Distribution Overhead Line
- Existing Western Power Distribution 132kV Overhead Line for Removal
- Existing Substation

Section Boundary

- Section Boundary (for the purpose of Landscape and Visual Impact Assessment)

6.4.136 The pastoral landscape of Clapton Moor is more varied than the Moors landscapes south of Tickenham Ridge and includes greater woodland cover, marshy grassland, wet and mixed woodland and occasional arable fields. Field boundaries are also more varied including an increasing use of fencing to replace hedgerows and ditches, along with hedgerow field boundaries with mature trees.

6.4.137 The eastern extent of Section F includes the western part of the Portbury Settled Coastal Edge (LLCA C2), which largely comprises car depots with large areas of hardstanding and tall mature tree planting around car storage areas. Other parts of the Portbury Settled Coastal Edge (LLCA C2) in this Section comprise flat low-lying pastoral land with areas of marshy ground.

6.4.138 Views from Section F extend across the Bristol Channel, and include industrial activity at Portbury Dock and Avonmouth Dock further east and northeast. Industrial dockland activity provides a frequently changing scene of container ships docking, loading and unloading and cranes are visible along with wind turbines and tall buildings at Avonmouth Dock.

6.4.139 Portishead Ridge (LLCA E4) refers to the prominent outcrop of limestone and sandstone forming the coastal edge between Portishead and Clevedon in the southwest. This higher ground includes steep wooded slopes which provide a backdrop to the lower ground. There are extensive views over the Gordano Valley.

6.4.140 The North Somerset Landscape Character Assessment (Ref. 6.10) description for the Portishead Ridge LLCA identifies one of the 'Forces for Change' being a demand in this area for tall vertical structures such as masts referred to as prominent when viewed from lowland areas.

Section G: Avonmouth

6.4.141 NSC Landscape Character Assessment (Ref. 6.10) characterises the southern part of Section G south of the River Avon as the Portbury Settled Coastal Edge (LLCA C2).

6.4.142 The Portbury Settled Coastal Edge (LLCA C2) comprises The Royal Portbury Dock and adjacent industry including a coal workings site and car depots with large areas of hardstanding. The M5 contains this area to the south.

6.4.143 Views from the Portbury Settled Coastal Edge (LLCA C2) extend across the Bristol Channel, and include industrial activity at The Royal Portbury Dock and at Avonmouth Dock north of the River Avon. Industrial dockland activity provides a frequently changing scene of container ships docking, loading and unloading. Cranes are prominent features along with wind turbines and tall industrial buildings at Avonmouth Docks around the southern and western periphery of Avonmouth.

6.4.144 To the south of the M5 motorway and the Portbury Settled Coast Edge (LLCA C2) is the Avon Rolling Valley Farmland (LLCA J6), which is described as a disjointed area, lacking unity and a coherent pattern. The A369 and its associated ribbon development cut through the area and effectively divides the area into two. To the south of the road there is a network of large fields bounded by low, gappy hedgerows and fences. To the west of the area is a large swathe of historic parkland.

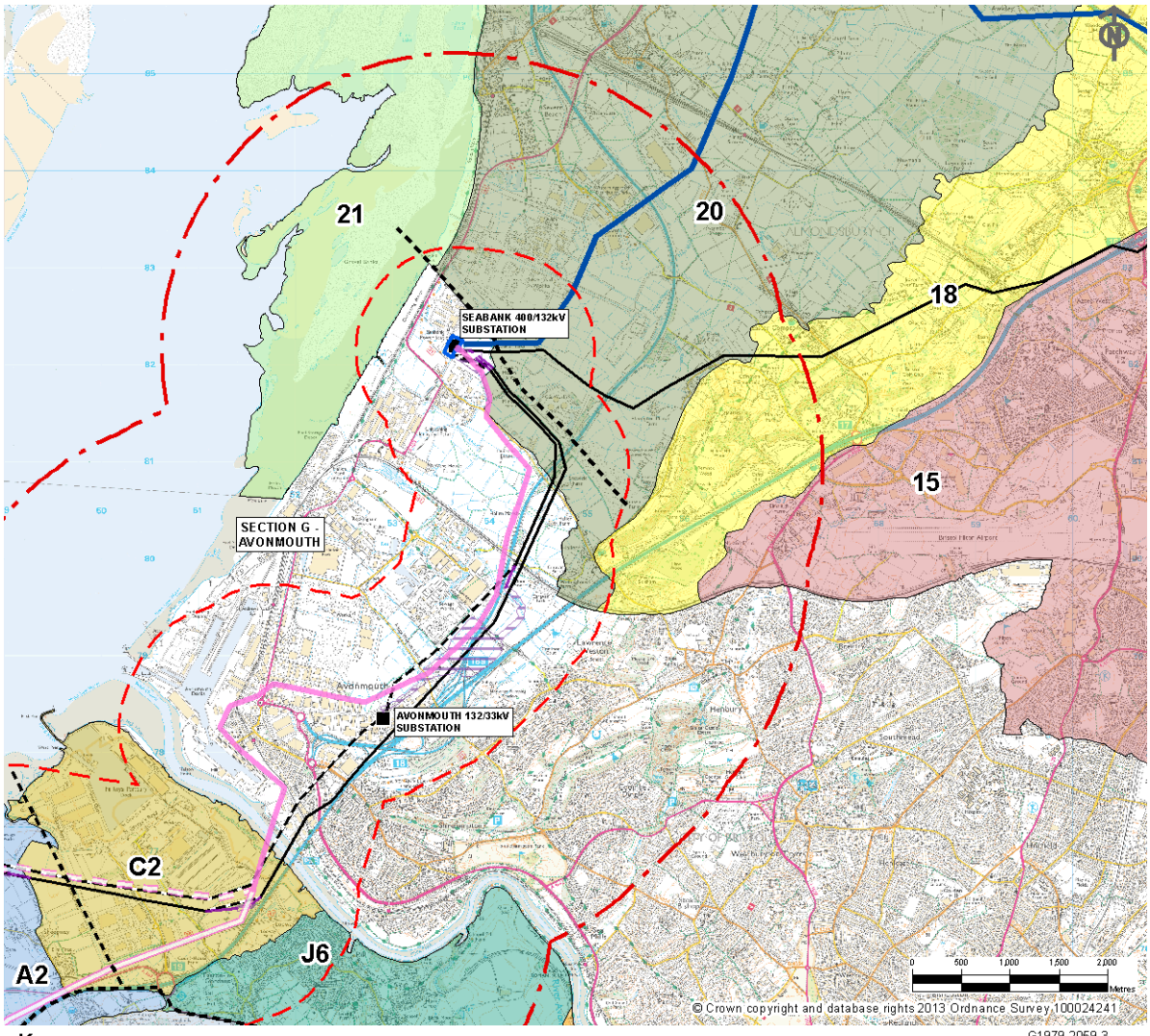
6.4.145 The large settlement of Pill, which merges into Easton-in-Gordano along the A369, is described as having a major urbanising influence on the area. New development of red brick residential properties and large office and institutional buildings to the east of the village are noted as being particularly visible.

6.4.146 There is no LLCA that considers Avonmouth. The character of this area is dominated by dockland and industrial activity including container ships, tall cranes and wind turbines, tall industrial buildings, motorways including the elevated section of the M5 and 132kV overhead lines including the tall pylons on the G Route and BW Route crossing the River Avon. There are particularly tall pylons on the G Route where it crosses the River Avon.

6.4.147 The southern and western edge of Avonmouth adjacent to the River Avon in the south and the River Severn in the west is dominated by dockland industry. The residential area of Avonmouth lies north of the River Avon between a redundant railway line and the road network where the A4 and B4054 meet slip roads to the M5 and M49. There is a dense mix of large and smaller scale industrial units north of this road network, including a trading estate adjacent to Avonmouth Substation. North of these industrial units is a slag heap and industrial works, and commercial development beyond fields divided by ditches and hedgerow.

6.4.148 North of Kings Weston Lane there is a sewage treatment works in the east and additional large scale and smaller scale industrial units in the west accessed off St Andrews Road. Further north on St Andrews Road a different road runs southwest passed large car storage areas towards large commercial and distribution units in the southeast close to the M49. These units appear to have been built more recently than other industrial areas in Avonmouth and appear more spacious and set in well-maintained amenity landscape areas.

Inset 6.15 (of **Volume 5.6.2, Figure 6.3.1**): Section G LLCAs



Key

Proposed Infrastructure
- Proposed Route for 400kV Overhead Line
- Preferred Route (Option A) for 400kV Overhead Line
- Alternative Route (Option B) for 400kV Overhead Line
- Proposed Route for 132kV Overhead Line
- Proposed 132kV Underground Cable Route Limits of Deviation
- Proposed Seabank 400/132kV Substation Work Area
- 1km from the Limits of Deviation of the Proposed Development
- 3km Study Area from the Limits of Deviation of the Proposed Development

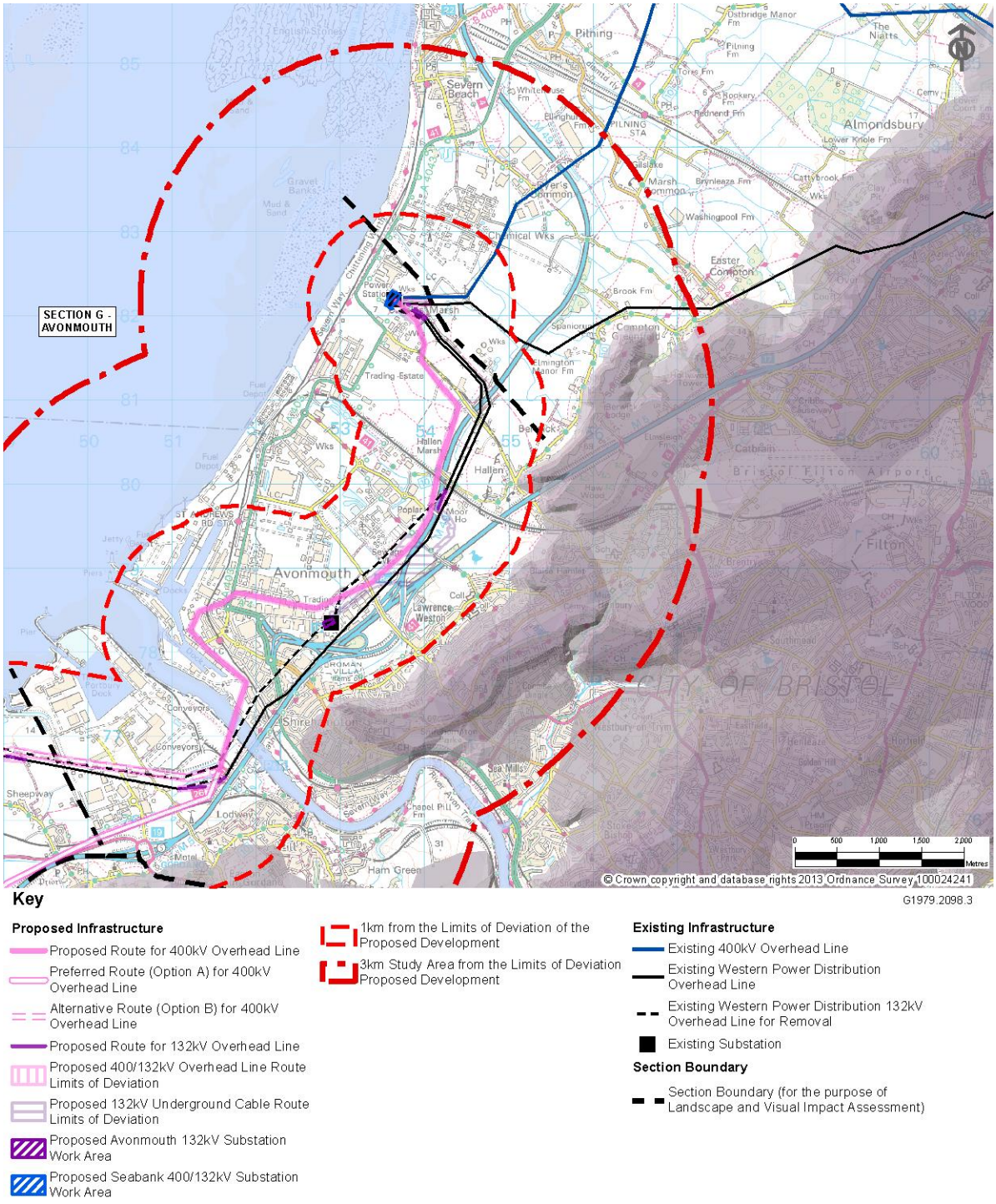
Existing Infrastructure
- Existing 400kV Overhead Line
- Existing Western Power Distribution 132kV Overhead Line
- Existing Western Power Distribution 132kV Overhead Line for Removal
- Existing Substation

North Somerset Local Landscape Character Areas
- A2, Clapton Moor
- C2, Portbury Settled Coastal Edge
- D1, Avon Gorge
- F1, Abbots Leigh Sandstone Uplands
- J6, Avon Rolling Valley Farmland

South Gloucestershire Local Landscape Character Areas
- 20, Pilning Levels
- 21, Severn Shoreline and Estuary
- 18, Severn Ridges
- 15, Patchway and Filton

Section Boundary
- Section Boundary

Inset 6.16 (of **Volume 5.6.2, Figure 6.3.1**): Section G Topography (See Inset 6.2 for the key illustrating Topography Above OS Datum))



6.4.149 Fields divided by ditches and mature hedgerow lie north of a disused railway line running northwest-southeast on a vegetated embankment across Section G. This area has aspects of rural and remote character that contrasts with industrial areas elsewhere in this Section. Southeast of this area beyond the M49 and adjacent farmland is the small settlement of Hallen. East of Hallen the land rises steeply to the northeast to Spaniorum Hill (in Section G) with woodland across the steep

slopes. South of Hallen and the M5, settlement extends across low-lying land, which rises up to wooded hills including Kings Weston Hill and Coombe Hill, also in Section G.

6.4.150 North of the fields in the northeastern part of this Section, there are an industrial works site, a gas works, Chittening Industrial Estate and Seabank Power Station (with adjacent substation) to the west, closer to the Severn Estuary.

6.4.151 The South Gloucestershire Landscape Character Assessment (Ref. 6.11) characterises the northern extent of Section G, beyond Seabank Power Station and including Hallen in the southeast, as the Pilning Levels (LLCA 20).

6.4.152 The Pilning Levels (LLCA 20) is described as a largely flat, semi-enclosed to open agricultural landscape divided by 'rhynes', motorways and a railway line and is punctuated by large scale industry. This LLCA extends northeast from the route of the proposed 400kV overhead line and includes farmland divided by ditches and hedgerow in the east and Severnside Works, Avlon Works and the Western Approach Distribution Park in the west and north. The South Gloucestershire Landscape Character Assessment (Ref. 6.11) refers to industrial chemical works and distribution sheds as being prominent to the south of this character area, along with the two Severn Bridges in the west and several overhead lines and pylons crossing this area.

6.4.153 Land southeast of the Pilning Levels (LLCA 20) is characterised as the Severn Ridges (LLCA 18) and includes Spaniorum Hill. LLCA 18 is described as an extensive, complex landform of abrupt scarps and gentle ridges which rise from the lower Levels area. The South Gloucestershire Landscape Character Assessment (Ref. 6.11) refers to the Severn Ridges as being greatly influenced by the adjacent Levels and Severn Estuary.

Section H: Hinkley Line Entries

6.4.154 The West Somerset Landscape Character Assessment (Ref. 6.12) by WS Atkins South West, on behalf of West Somerset District Council, characterises the landscape within which the Hinkley Line Entries are proposed as the Quantock Vale (LLCA 3) with Wick Moor and Coast; Eastern Lowlands; and Wall Common and Coast forming sub-character areas (SLCA) within it.

6.4.155 The Quantock Vale (LLCA 3) is described as a flowing lowland landscape of wide valleys and gentle hills, a cliffed coastline (from St Audries to Hinkley Point), and with areas of marsh and salt marsh. Vegetation across this area comprises mixed species hedges, hedgerow trees, limited small and medium sized deciduous woodlands and copses, grazing marsh and pasture fields. Built settlement includes the historic village of Stogursey, Holford and numerous small hamlets.

6.4.156 Beyond the Quantock Vale (LLCA 3) are the Doniford Stream and Quantock Fringe (LLCA 5) and the Central Quantocks (LLCA 4) approximately 3.5km and 6.5km southwest of the proposed Hinkley Line Entries site respectively.

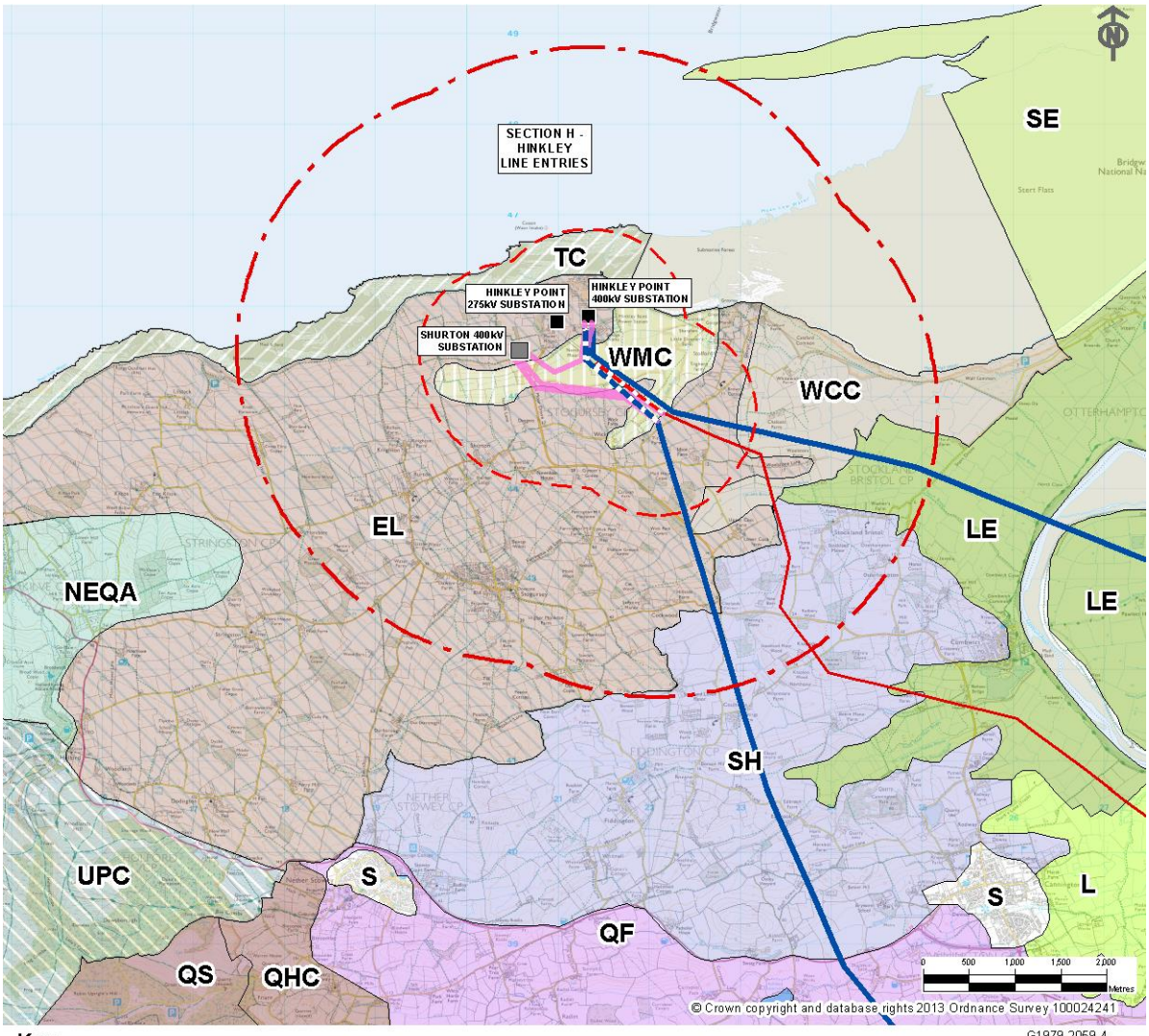
6.4.157 The existing Hinkley Point Power Station Complex is within the Eastern Lowlands (SLCA EL). The proposed Hinkley Line Entries are predominantly in the Wick Moor and Coast character area (SLCA WMC). The Wall Common and Coast character area (SLCA WCC) is to the east and is separated from Wick Moor by the Eastern Lowlands (SLCA EL) which extends around Wick Moor.

6.4.158 The Wick Moor and Coast (SLCA WMC) includes coastal marsh below 10m AOD, subject to flooding and covered with recent alluvial deposits. Marsh is noted as being used for grazing in the summer and is not divided into fields. Scrubby vegetation exists along drainage ditches. The area is described as being open and bleak and visually dominated by the existing Hinkley Point Power Station Complex.

6.4.159 The Wall Common and the Coast (SLCA WCC) has similar characteristics to the Wick Moor and Coast (SLCA WMC), but is separated from Wick Moor in the west by slightly higher land referred to as the Stolford Ridge. The Wall Common and the Coast (SLCA WCC) includes low-lying land below 10m AOD and pasture fields used as grazing marsh in the summer divided by drainage ditches. The area also is described as being open and bleak.

6.4.160 The Eastern Lowlands surround Wick Moor and comprise low rolling hills to about 70m AOD. In the south-west the gently sloping landform rises to the Quantock Hills. Medium-size deciduous woodlands and copses are noted as being scattered throughout the area. The visual dominance of the existing Hinkley Point Power Station Complex in the area is noted as being less than might be expected due to the area's rolling landform and woodland and hedgerow screening. The power station is however noted as a significant feature in views of the area from the Quantock Hills. Power lines in the east are noted as being locally dominant features.

Inset 6.17 (of **Volume 5.6.2, Figure 6.3.1**): Section H LLCAs



Key

Proposed Infrastructure
- Proposed Route for 400kV Overhead Line
- 1km from the Limits of Deviation of the Proposed Development
- 3km Study Area from the Limits of Deviation of the Proposed Development

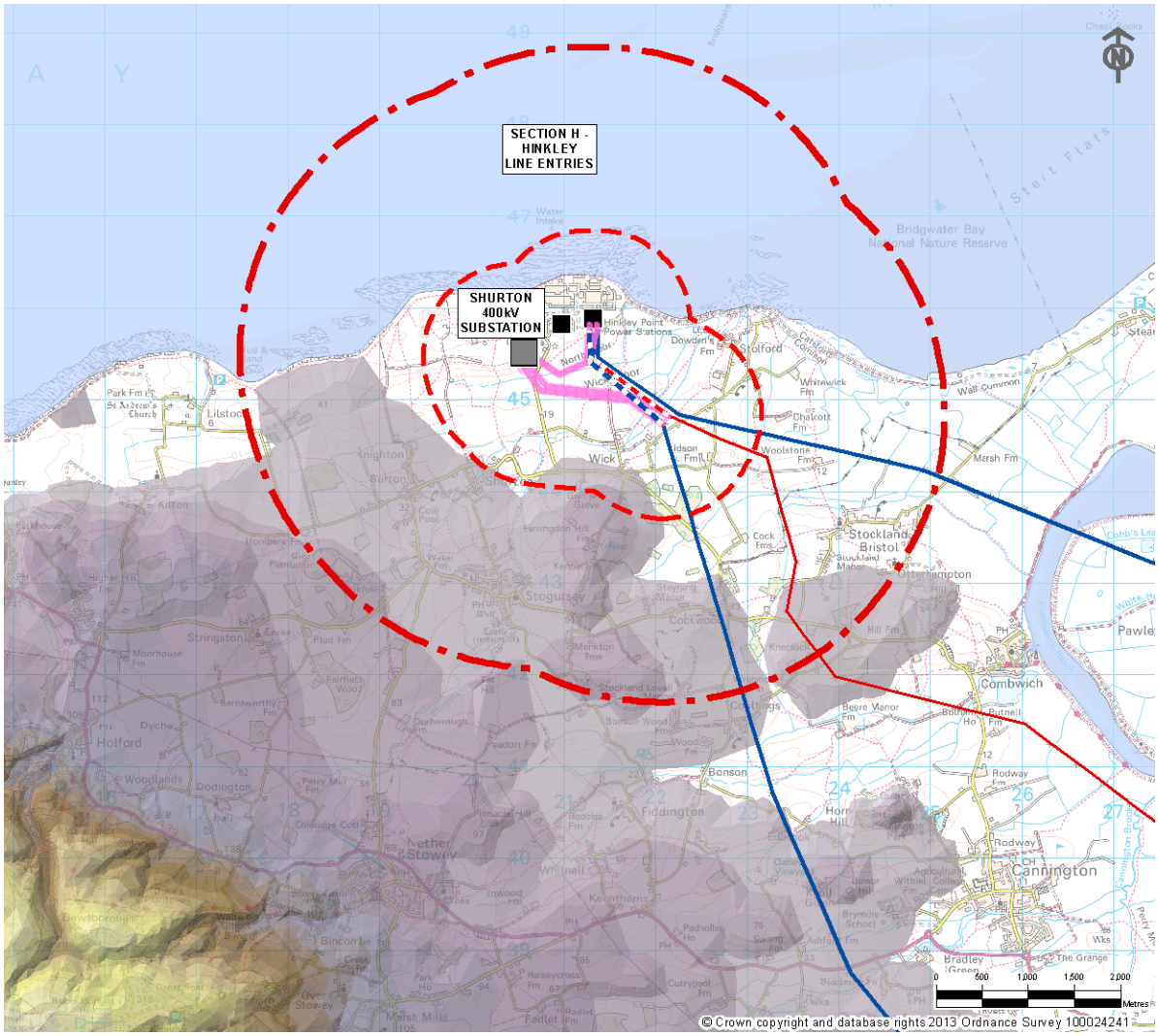
Existing Infrastructure
- Existing 400kV Overhead Line
- Existing 275kV Overhead Line
- Existing 400kV Overhead Line to be Removed
- Existing 275kV Overhead Line to be Removed
- Existing Substation

Consented Infrastructure
- Shurton 400kV Substation

West Somerset Local Landscape Characters
- WMC, Wick Moor and Coast
- EL, Eastern Lowlands
- TC, The Coast (St Audries to Hinkley Point)
- WCC, Wall Common and Coast

Sedgemoor Local Landscape Character Areas
- L, Levels
- LE, Levels - Estuarine
- SE, Sea Edge/Intertidal Zone
- QF, Quantock Foothills
- SH, Stockland Hills
- NEQA, North East Quantock Agricultural Fringe
- QHC, Quantock Hills and Combes
- QS, Quantock Summits
- UPC, The Upland Plateau and Combes
- R, Reservoir
- S, Significantly Built Up Areas

Inset 6.18 (of **Volume 5.6.2, Figure 6.3.1**): Section H Topography (See Inset 6.2 for the key illustrating Topography Above OS Datum))



6.4.161 The Sedgemoor District boundary is just less than 3km to the southeast of the power station. Sedgemoor is characterised into LCAs in SDC Landscape Assessment (Ref. 6.9).

6.4.162 To the east the Wall Common and Coast (SLCA WCC) within West Somerset becomes the Estuarine Levels (SLCA LE) within Sedgemoor.

6.4.163 The Estuarine Levels (SLCA LE) partly comprises the open and windswept landscape surrounding the Parrett Estuary, and is described as comprising largely

flat lowland areas where alluvial and marine clay or gravel deposits have created land slightly above the low-lying Moors. The area's field pattern is defined by ditches and 'rhynes'. Tree (and hedgerow) cover is noted as influencing the extent of views in this flat landscape.

6.4.164 To the southeast and south of the Eastern Lowlands (SLCA LE) in West Somerset become the Stockland Hills (SLCA SH) in Sedgemoor. The Stockland Hills (SLCA SH) are described as rising gently above the Levels of the Steart peninsula and comprise a series of small hills rising from 10m AOD to an average of 50-60m AOD. Higher ground includes Pinnacle Hill at 95 m AOD and the hill fort site of Cannington Park at 80m AOD. The Stockland Hills (SLCA SH) have a close association with the estuarine and coastal areas of the Parrett and Bridgwater Bay.

6.4.165 The Stockland Hills include small pasture fields and larger arable fields, unmanaged hedgerows and small woodlands, with a dispersed settlement pattern. Much of the area is described as having an undeveloped remote character, but features such as existing pylons are noted as bringing modern development into the landscape. Copses, coverts and other woodland blocks are noted across this area.

Forest of Avon Community Forest

6.4.166 The Forest of Avon is one of twelve Community Forests in England and extends over 57,000 hectares across four local authority areas including North Somerset, Bath and North East Somerset, Bristol and South Gloucestershire. The Forest of Avon Trust is an independent charity, whose key objectives include getting trees planted in gardens, streets, green spaces or as woodlands, focusing on areas of low tree cover; provide training for communities and individuals to help them plant and manage trees; giving advice to help improve woodland management and safeguard woodlands under threat; and to campaign for and deliver strategic woodland creation in support of the Forest of Avon.

6.4.167 The Forest of Avon is east of Section D, (beyond Nailsea and Yatton), and extends across the most northern part of Section D. The Forest of Avon also extends across Tickenham Ridge in Section E, across Section F, and across parts of Section G outside the predominantly urban areas of Section G.

6.4.168 The following paragraphs refer to the Forest of Avon Plan 2002 (Forest Plan) (Ref. 6.13) and provide an indication of woodland cover within the Forest of Avon, within and close to the landscape in Sections D to G.

6.4.169 In the east and north of Section D, the Forest Plan (Ref. 6.13) identifies that woodland cover comprises between 10% and 20% of the land.

6.4.170 The Forest Plan (Ref. 6.13) identifies that more than 30% of the area in Section E is woodland, which is a higher percentage of tree cover than surrounding areas. Less than 10% of the low-lying land in Section F has woodland cover, which is a lower percentage of tree cover compared to surrounding areas, including Portishead Ridge. The Forest Plan (Ref. 6.13) also identifies that land outside the predominantly urban area in Section G comprises less than 10% of woodland cover.

6.4.171 As well as setting out objectives for local areas and woodland cover, the Forest Plan (Ref. 6.13) identifies two main strategy areas for North Somerset including the 'Lulsgate Plateau' in the east and 'Gordano Parkland' in the north across Section E.

Results of Site Assessment

6.4.172 This part of the chapter provides a description of the baseline environment, (i.e. what the existing landscape character across Sections A to H is at present), supplementing the review of published landscape assessments and information from consultation with field survey. The value of the landscape potentially affected in each Section of the Proposed Development is also described.

Section A: Puriton Ridge: Landscape Character

6.4.173 Section A includes Horsey Level, part of the wider Somerset Levels and Moors, comprising flat low-lying farmland divided by field drains and 'rhynes', including Bath Road Rhyne, and mature hedgerow in places. King's Sedgemoor Drain runs in a northwest direction to the north of Horsey Level at the foot of Puriton Ridge. Farmland is both pasture and arable on the Levels and on Puriton Ridge, with a larger field pattern across Horsey Level compared to the field pattern on the northern slopes of the ridge. Puriton Ridge provides a distinct backdrop and skyline, and provides expansive distant views across the Levels and Moors.

Photograph 6.1: View from a public right of way (PRoW) BW 2/46 on Puriton Ridge looking south down the southern slopes of Puriton Ridge towards and across Horsey Level on flat lower lying ground

6.4.174 Hedgerow and tree cover across Horsey Level includes mature field boundary hedgerow and hedgerow trees particularly to the south (hedgerow is overgrown with gaps in places and maintained in others); mature trees along Horsey Lane track and surrounding Manor Farm (including garden trees); young tree planting adjacent to Horsey Lane near Manor Farm, and also along the east side of the M5 motorway. Woodland is a feature of Puriton Ridge including Home Covert, New Ground Covert, Ashen Covert, Chisland Covert and Eleven Acre Covert. There is also mature parkland tree cover on Knowle Hill. Hedgerow, with some hedgerow trees, also defines field boundaries on the northern slopes of Puriton Ridge.

6.4.175 There are properties on lower ground including properties on Bath Road and Horsey Lane and new housing on the edge of Bridgwater west of the M5 motorway. There are also properties on Puriton Ridge, with settlement on the northern slopes including Puriton, Woolavington and Cossington. The M5 motorway, the A39 (Puriton Hill and Bath Road), and King's Sedgemoor Drain form the boundaries of

Horsey Level in Section A. The M5 motorway and traffic on the M5 are particularly discernible, along with the large Morrison's distribution centre on the edge of Bridgwater.

Photograph 6.2: View across Horsey Level looking towards the VQ Route and towards the large Morrison's distribution centre on the edge of Bridgwater beyond the M5 motorway

Section A: Landscape Value

6.4.176 There are no national or local level landscape designations in Section A.

6.4.177 This Section comprises an area of the wider Somerset Levels and Moors, and a ridge of higher ground, Puriton Ridge. The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section A, include the:

- flat low-lying agricultural landscape;
- irregular field pattern on Horsey Level defined by sinuous drainage ditches or 'rhynes';
- mature hedgerow with hedgerow trees in places across Horsey Level and on Puriton Ridge (hedgerow is overgrown with gaps in places and maintained in others);
- Puriton Ridge (the western part of the wider Polden Hills), a strong landscape feature with visual prominence from the lowland wetland landscape, and which has a strong historical, and visual, association with the Levels;
- expansive long distance views over the Levels and Moors and to other hills including Brent Knoll, and the distant Mendip Hills and Quantock Hills;
- woodland and parkland trees on Puriton Ridge; and
- smaller field pattern on the northern slopes of Puriton Ridge, defined by hedgerow, with some hedgerow trees.

6.4.178 The rural Levels landscape to the east of the M5 motorway is generally in good condition, and farmland is generally intact. The larger field pattern on Horsey Level

however suggests that some hedgerow field boundaries have been removed to accommodate changes in agricultural practice.

6.4.179 Urban and industrial development is concentrated to the west of the M5 in the vicinity of Bridgwater and includes a large Morrison's distribution centre and housing development on the northeastern edge of Bridgwater. SDC Landscape Assessment (Ref. 6.9) refers to industry on the approach to the urban area of Bridgwater as creating a negative impression of the town, but states that large industrial and warehouse buildings are an inevitable element of the urban landscape.

6.4.180 SDC Landscape Assessment (Ref. 6.9) also refers to the visual prominence of the Polden Hills and the variety and richness of its landscape as being a high priority area for conservation. The western end of the Polden Hills, and the southern hillocks are noted in particular has having high value in terms of views from lowland areas.

6.4.181 The Levels landscape in Section A has similar landscape characteristics and features as the wider Somerset Levels and Moors but is influenced by industry and housing development on the northeastern edge of Bridgwater, including the M5 motorway and motorway traffic. Existing overhead lines run through this landscape including the VQ Route, and the F Route.

6.4.182 The Levels in Section A is assessed as having local value. Puriton Ridge is recognised as an important and valued landscape feature; however this ridge landscape is assessed as having no more than local value.

Section B: Somerset Levels and Moors South: Landscape Character

6.4.183 Section B comprises a significant part of the wider Somerset Levels and Moors including Woolavington Level, Huntspill Moor and Mark Moor within the southern part of Section B. Flat low-lying farmland throughout Section B is divided by numerous field drains and 'rhynes', for example Stoningpound Rhyne and Pyde Rhyne across Woolavington Level, Southwick Rhyne and Northwick Rhyne south and north of Mark Causeway, and Blind Pill Rhyne and Plash Rhyne between Knoll View Farm and Rooksbridge. There are also mature hedgerows and hedgerow trees along field boundaries and drains. Hedgerows are overgrown and or gappy in places and well-maintained in others.

Photograph 6.3: View across pasture in Section B to the east of Brent Knoll

6.4.184 Other features in the landscape include the Huntspill River running in a northwest direction across the southern part of Section B, and the River Brue running northwest across the landscape north of Huntspill Moor and East Huntspill. The Old River Axe and Mark Yeo generally meander across farmland in the northern part of Section B.

6.4.185 Settlement in Section B includes the northern part of Woolavington and Puriton; East Huntspill; the settlement of Mark; residential properties on Southwick Road and Northwick Road; residential properties at and near Vole; Rooksbridge; Tarnock; Biddisham; and Edingworth, as well as individual farms and groups of residential properties throughout Section B. Development in Section B perceptible in the landscape includes the Royal Ordnance Factory on Woolavington Level in the south, a factory at East Huntspill and the M5 motorway.

Section B: Landscape Value

6.4.186 There are no national or local level landscape designations in Section B, however the northern boundary of this Section abuts part of the southern boundary of the Mendip Hills AONB and is within the wider setting of the Mendip Hills AONB.

6.4.187 This Section comprises the Somerset Levels and Moors, and is defined by Puriton Ridge to the south and the Mendip Hills AONB to the north. The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section B, include the:

- flat low-lying farmland divided by numerous field drains and ‘rhynes’;
- mature hedgerows and hedgerow trees along field boundaries and drains (hedgerow is overgrown and or gappy in places and well-maintained in others);
- rivers and other watercourses running across and through this Section, either in a straight direct channel or meandering across farmland; and
- linear settlement along rural and main roads, and individual farms and properties dispersed on the rural road network.

6.4.188 The Somerset Levels and Moors landscape in Section B has many of the landscape characteristics and features which categorise the wider Somerset Levels and Moors landscape. The predominantly agricultural landscape of the Somerset Levels and Moors in Section B is managed and is generally in good condition, although hedgerows are fragmented and gappy in places, for example to the east of Brent Knoll. Development perceptible in Section B includes the Royal Ordnance Factory on Woolavington Level in the south, a factory at East Huntspill and the M5 motorway. Existing overhead lines run through this landscape including the ZG Route, F Route and the Bridgwater to Weston-super-Mare low voltage overhead line.

6.4.189 This landscape has recreational value recognised by the presence of a number of camping and caravan sites, and holiday cottages; Middlemoor Water Park and fishing on the Hunstpill River in the southern part of Section B; and numerous PRoW running across the countryside. The landscape in Section B is also experienced from higher ground on Puriton Ridge, from Brent Knoll, from Crook Peak in the Mendip Hills AONB and from the West Mendip Way long distance route and PRoW on Loxton Hill, Bleadon Hill and Wavering Down, also in the Mendip Hills AONB.

6.4.190 The Somerset Levels and Moors landscape in Section B is assessed as having local value. The landscape in Section B in particular the northern part of this Section has greater value due to its contribution to the setting of the nationally designated Mendip Hills AONB; however the landscape is assessed as having no more than local value.

Section C: Mendip Hills AONB: Landscape Character

6.4.191 Section C comprises the western part of the Mendip Hills AONB and includes the broad low-lying valley of the Lox Yeo River, which is surrounded by the higher ground of the Mendip Hills including Crook Peak, Compton Hill and Wavering Down to the south; Loxton Hill to the west; and Banwell Hill and Sandford Hill to the north and northeast. The rural landscape of the Lox Yeo valley in the AONB is partly enclosed by the generally wooded Mendip Hills.

Photograph 6.4: View from Christon Road on higher ground in Loxton looking east towards Crook Peak

6.4.192 Crook Peak is a prominent feature in the landscape across the valley and is also a backdrop to the Somerset Levels and Moors in Section B to the south. It is

characterised by open high ground with rock outcrops. This hill contrasts with adjacent hills which are characterised by woodland and pasture.

Photograph 6.5: View from within the Lox Yeo Valley looking southeast towards the F Route within the valley and at the foot of Crook Peak

6.4.193 East of Barton the field pattern is slightly smaller but remains irregular. A slightly higher degree of enclosure is provided by more frequent hedgerow and hedgerow trees along field boundaries. Riparian trees along the Lox Yeo River, groups of trees around isolated properties and the presence of mature woodland on the valley sides and high ground increase the perceived sense of tree cover within the valley. Where present hedgerows are generally well maintained although there are some localised areas where there are gaps in hedgerow.

Photograph 6.6: View from Crook Peak looking north and northeast across the Lox Yeo Valley and the Mendip Hills AONB

6.4.194 To the east of Banwell Road the predominantly arable fields are typically bordered by well-maintained hedgerows with relatively few hedgerow trees. Trees tend to be more closely associated with the Lox Yeo River. Woodland on Banwell Hill and Sandford Hill is prominent and contrasts with the more open farmland.

6.4.195 Settlement is generally concentrated on the edges of the valley on the valley slopes, often nestled at the base of the wooded hills. Loxton and Christon are distinctive villages at the eastern edge of this Section near the base of Loxton Hill and are designated as Conservation Areas. Other settlement in Section C includes

farms and properties at Barton on the slopes of Compton Hill and isolated properties along the northern and southern valley side roads.

6.4.196 Development is particularly evident at Winscombe in the eastern part of Section C. The development extends across the Lox Yeo Valley and is excluded from the AONB designation. The M5 runs north-south through the lower lying valley within the Mendip Hills AONB.

6.4.197 Banwell Castle and Winscombe Church are local landmarks visible across the valley.

Section C: Landscape Value

6.4.198 Section C comprises the most western extent of the Mendip Hills AONB, which is a designated landscape with national value.

6.4.199 The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section C, include the:

- broad low-lying valley of the Lox Yeo River, surrounded by the higher ground of the Mendip Hills;
- Crook Peak, a prominent feature in the surrounding landscape and a backdrop to the Somerset Levels and Moors in Section B;
- open high ground of Crook Peak with rock outcrops, contrasting with woodland and pasture on higher ground partly enclosing the Lox Yeo valley;
- irregular field patterns, and a slightly higher degree of enclosure east of Barton provided by more frequent hedgerow and hedgerow trees along field boundaries.
- riparian trees along the Lox Yeo River, and groups of trees around isolated properties;
- east of Banwell Road the predominantly arable fields are typically bordered by well-maintained hedgerows with relatively few hedgerow trees;
- settlement is generally concentrated on the edges of the valley on the valley slopes;
- Loxton and Christon are distinctive villages and are designated as Conservation Areas; and
- Banwell Castle and Winscombe Church are local landmarks visible across the valley.

6.4.200 The Mendip Hills AONB, including the Lox Yeo valley and adjacent hills, is actively managed in accordance with the Mendip Hills AONB Management Plan (Ref 6.7) and is in good condition. Where present hedgerows are generally well maintained although there are some localised areas where there are gaps in hedgerow.

6.4.201 The Mendip Hills AONB landscape has recreational value and attracts visitors and tourists to the area including walkers on the West Mendip Way long distance route,

and on Crook Peak experiencing the surrounding landscape often in panoramic far reaching views.

Section D: Somerset Levels and Moors North: Landscape Character

6.4.202 In the southernmost part of Section D the land falls to a lowland pastoral landscape north of the A368 along the northern boundary of the Mendip Hills AONB (in Section C) at Sandford. The landform is also undulating north of the A371 further west (near the M5 motorway) and includes Woolvers Hill. There are cider orchards north of Sandford associated with the Thatcher's Cider factory and shop. Settlement west of Sandford includes Banwell adjacent to the A371 and individual farms north of Banwell. The predominantly pastoral landscape in this part of Section D includes well maintained mature hedgerow and frequent mature hedgerow trees. Trees also line Towerhead Brook in the south of this Section.

Photograph 6.7: View from the Strawberry Line cycleway and footpath looking west and northwest across an orchard off Nye Road towards the N Route

6.4.203 Beyond Sandford, Banwell and Woolvers Hill, Section D is a low-lying generally flat and predominantly pastoral Moors landscape. Field patterns and hedgerow and tree cover varies across the Moors. There is a regular and geometric field pattern across the southern part of this Section north of Banwell and west of Congresbury and particularly across Kenn Moor and Nailsea Moor in the north. There is a more irregular field pattern partly defined by sinuous 'rhynes' and ditches between Kenn in the north and Puxton in the south.

Photograph 6.8: View from Lampley Road looking northeast towards the F Route

6.4.204 There are mature hedgerow field boundaries with hedgerow trees throughout Section D, and mature field trees in places. Hedgerows are generally well maintained however some hedgerows are fragmented and some field boundaries comprise scrub that has grown over ditches.

Photograph 6.9: View towards the F Route running across the flat open landscape of the Somerset Moors with scattered trees and hedgerows

6.4.205 South of Kenn there are orchards, tall mature hedgerow field boundaries with trees and low maintained hedgerow. There is also a mix of low hedgerow and tall mature hedgerows and trees along field boundaries across Kenn Moor with occasional small areas of woodland. Hedgerow and tree cover is more sparse and the landscape more open across Nailsea Moor particularly in the north of this Section. In the northernmost part of Section D between Nailsea and Tickenham Court there are mature trees along field boundaries adjacent to the edge of Nailsea, and mature trees along Parish Brook. North of Parish Brook hedgerow is low and well maintained.

6.4.206 Development is particularly evident in the central part of Section D including Yatton, North End, the M5 motorway and properties along Kenn Road and at Kenn. Section D is more remote in places including across Puxton Moor in the south, and across parts of Nailsea Moor, Clevedon Moor and Tickenham Moor in the north.

6.4.207 In the north of Section D landscape character is influenced by the large settlement of Nailsea and development along the B3130 including Stone-edge Batch, Tickenham and Tickenham Court. The landform also rises northwards to Tickenham Ridge, which defines the northern extent of Section D.

Section D: Landscape Value

6.4.208 There are no national or local level landscape designations in Section D, however the southern part of this Section abuts part of the northern boundary of the Mendip Hills AONB and is within the wider setting of the Mendip Hills AONB.

6.4.209 Section D comprises the Somerset Moors landscape, defined by the Mendip Hills AONB to the south, and Tickenham Ridge to the north, with Cleeve Ridge to the east. The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section D, include the:

- lowland pastoral landscape north of the Mendip Hills AONB, including well maintained mature hedgerow, frequent mature hedgerow trees, and trees along Towerhead Brook;
- cider orchards north of Sandford, and south of Kenn further north;
- low-lying generally flat and predominantly pastoral Moors landscape, with varied field patterns and hedgerow and tree cover;
- generally well maintained mature hedgerow field boundaries with hedgerow trees, mature field trees in places, and occasional small areas of woodland across Kenn Moor;
- more remote areas including across Puxton Moor in the south, and across parts of Nailsea, Clevedon, and Tickenham Moors in the north; and
- Tickenham Ridge, rising north of Tickenham Moor.

6.4.210 The Somerset Moors landscape in Section D has many of the landscape characteristics and features which categorise the Somerset Moors landscape.

6.4.211 NSC 'Landscape Character Assessment' (2005) (Ref. 6.10) describes the strength of character of the predominantly pastoral landscape of the Somerset Moors as being moderate in the south increasing to strong across Kingston Seymour and Puxton Moors, Kenn and Tickenham Moors and the Nailsea Farmed Coal Measures in the north with some weakening noted close to the B3130.

6.4.212 NSC 'Landscape Character Assessment' (2005) (Ref. 6.10) identifies the condition of the River Yeo Rolling Valley Farmland character area (LLCA J2) in the south of Section D as in generally good condition; however farm orchards are noted as being less intact.

6.4.213 The Moors landscape in Section D is also described as being in generally good condition, where it is not affected by the urban edge of Weston-super-Mare and the M5 in the west, and where field boundaries are less in decline. Grazed pastoral farmland and field boundaries are described as being mainly well-maintained, and the historic pattern of roads and settlement across the Kingston Seymour and Puxton Moors are largely intact and farmland well-maintained, with an intact

network of drainage ditches and ‘rhynes’ and other surviving historic features such as the straight roads, droves (tracks), and hedgerows across Kenn and Tickenham Moors.

6.4.214 This landscape has recreational value recognised by the presence of the Strawberry Line footpath and cycle route, numerous PRoW and national and regional cycle routes; Puxton Park; and a fishery near North End. The landscape in Section D is also experienced from vantage points in the northern extent of the Mendip Hills AONB and from Tickenham Ridge.

6.4.215 The northern part of Section D has historical interest as Tickenham Church and a number of local buildings are Listed. This historical interest contributes to the value of the landscape.

6.4.216 The Moors landscape in Section D is assessed as having local value. The landscape in the southern part of this Section has greater value due to its contribution to the setting of the nationally designated Mendip Hills AONB; however the landscape is assessed as having no more than local value.

Section E: Tickenham Ridge: Landscape Character

6.4.217 Section E comprises Tickenham Ridge, which rises steeply from lower lying land and provides a distinctive backdrop to the Moors in the south and Clapton Moor to the north. In the south of Section E the landscape is enclosed in parts with localised low ground and sinuous woodland blocks and belts, including Chummock Wood and Mogg’s Wood (Ancient Woodland) on higher ground to the north and south.

Photograph 6.10: View from PRoW LA16/1 (north of Stone-edge Batch) looking northeast up Tickenham Ridge along the F Route and the W Route

6.4.218 Prior’s Wood comprising Ancient Woodland, extends across the northern slopes of Tickenham Ridge. Prior’s Wood is a nature reserve protected and promoted by the Avon Wildlife Trust and accessible to walkers via a network of footpaths including along the steep valley.

Photograph 6.11: View within Prior's Wood

6.4.219 Settlement at the base of the south-facing ridge includes ribbon development along the B3130 Clevedon Road at Tickenham. The Iron Age hill fort Cadbury Camp sits on the top of Tickenham Ridge northwest and west of the F Route and W Route in Section E. On the northern slopes and edge of Tickenham Ridge there are scattered farmsteads including Naish Farm and Little Naish, and few villages linked by rural roads including Portbury on lower ground near the M5 motorway.

Section E: Landscape Value

6.4.220 There are no national or local level landscape designations in Section E, and the Mendip Hills AONB is approximately 13km to the south.

6.4.221 Section E comprises the prominent Tickenham Ridge landscape. The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section E, include the:

- ridge landform rising steeply from the lower lying Moors providing a backdrop to the surrounding landscape;
- localised valley in the southern part, enclosed by higher ground including sinuous woodland blocks and belts to the north and south;
- Chummock Wood, Mogg's Wood and Prior's Wood (Ancient Woodland); and
- scattered farmsteads, and few villages linked by rural roads including Portbury on lower ground.

6.4.222 The ridge landscape in Section E has many of the landscape characteristics and features which categorise the wider Tickenham Ridge landscape.

6.4.223 The landscape in this Section is in good condition and is generally intact. This landscape also has recreational value, as many PRoW run through Section E including part of the Gordano Round long distance route which crosses a much wider area.

Photograph 6.12: View from the Gordano Round long distance route along Tickenham Ridge near Breach Wood and Noah's Ark Zoo Farm towards the W Route and the F Route

Photograph 6.13: View from the Gordano Round long distance route looking northeast towards the F Route and the W Route, and towards Portishead and Avonmouth in the distance

6.4.224 The southern slopes of Tickenham Ridge in Section E have historical interest including Cadbury Camp, and Tyntesfield Park and Garden further east, which contribute to the value of this landscape.

6.4.225 The Tickenham Ridge landscape in Section E is assessed as having local value.

Section F: Portishead: Landscape Character

6.4.226 Section F comprises generally flat low-lying land across Clapton Moor and across the Gordano Valley to the southwest. The land falls towards lower-lying land north of the M5 motorway which is built on an embankment. Farmland is predominantly pasture with some arable fields in particular to the south of the A369 The Portbury Hundred. There are numerous horse paddocks and stables in Section F. Mature trees and hedgerow define field boundaries across Clapton Moor and in Portbury Wharf Nature Reserve. Some hedgerows in the Nature Reserve are maintained at a low height. There are also mature trees and hedgerow on both sides of the A369 The Portbury Hundred and along the dismantled railway. The A369 runs

approximately east to west and the disused railway approximately southeast northwest across the southern part of this Section.

6.4.227 Low-lying land is in the foreground of Tickenham Ridge rising steeply to the south and Portishead Ridge to the west and north of the Gordano Valley. Woodland extends across these ridge landscapes.

Photograph 6.14: Existing view from Sheepway looking south across low-lying horse pasture towards Tickenham Ridge including Prior's Wood

6.4.228 Portishead and Portbury Wharf are in the northwestern extent of Section F. Portishead is partly on lower-lying ground but extends west onto the higher ground of Portishead Ridge. New housing development on the edge of Portbury Wharf has extended the development edge further east. Portbury Wharf Nature Reserve is to the east of the settlement and includes bird hides and a network of recreational footpaths and PRoW. Portishead Substation is adjacent to the settlement edge and is partly encompassed by the Nature Reserve. The F Route and W Route run into Portishead Substation to the south of the site and close to the settlement edge. The G Route and BW Route run out of the Portishead Substation site to the east.

Photograph 6.15: View from a footpath on the mound adjacent to Portishead Substation looking southeast across the Portbury Wharf Nature Reserve along the F Route and the W Route towards Tickenham Ridge

6.4.229 On the eastern edge of Section F there are large car depots and storage areas accessed off The Drove and surrounded by fencing and tree planting with tall lighting columns. Large warehouses and dockland activity are evident further east at The Royal Portbury Dock, with dockland activity, cranes and wind turbines at Avonmouth visible beyond.

Section F: Landscape Value

6.4.230 There are no national or local level landscape designations in Section F. Tickenham Ridge prevents intervisibility between the landscape in Section F and the Mendip Hills AONB in the far south.

6.4.231 Section F comprises Clapton Moor, Portbury Wharf Nature Reserve and industry on the western edge of the Royal Portbury Docks. The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section F include:

- flat, low-lying land across Clapton Moor, and the Gordano Valley to the southwest;
- Portishead Ridge and Tickenham Ridge, which are strong landscape features with a close association with Clapton Moor, and the Gordano Valley on lower ground;
- pasture with some arable fields and horse paddocks; and
- mature trees and hedgerow along field boundaries, roads and a dismantled railway.

6.4.232 The landscape in Section F generally includes many of the landscape characteristics and features which categorise the wider Clapton Moor landscape in the Gordano valley.

6.4.233 This landscape also has recreational value, including footpaths and PRoW with information boards, and bird hides at Portbury Wharf Nature Reserve; the Gordano Round long distance route which crosses a much wider area; and Weston Big Wood Nature Reserve on higher ground on Portishead Ridge. Open space on the eastern edge of new housing at Portbury Wharf provides recreational and educational interest for local residents.

6.4.234 The strength of character of the predominantly pastoral landscape of Clapton Moor (LLCA A2) in Section F is recorded in NSC Landscape Character Assessment (2005) (Ref. 6.10) as being moderate as it includes characteristics typical of the Moors landscape although shows greater diversity in land cover. The urban edge of Portishead, the M5 motorway and views to dockland activity to the east and northeast are described as disruptions to the rural and generally remote landscape character. The character of Portishead Ridge (LLCA E4) is noted as being moderate in strength and affected by mixed land use and the visible urban edge of Portishead.

6.4.235 NSC Landscape Character Assessment (2005) (Ref. 6.10) records the condition of Clapton Moor (LLCA A3) across the majority of this Section as being generally good due to active management of pasture land, Portbury Wharf Nature Reserve and the Gordano Valley Nature Reserve in the west. However the North Somerset

Landscape Character Assessment (Ref. 6.10) states that activities such as installing fences to replace hedgerows and a change in the nature of activity around the periphery of the area is damaging its integrity and unity and reducing its distinctive character.

6.4.236 The landscape in Section F is assessed as having local value.

Section G: Avonmouth: Landscape Character

6.4.237 Section G comprises generally flat low-lying land adjacent to the River Severn and the River Avon. The area is dominated by industry and dock development including large warehouses and depots, car storage areas comprising large areas of fenced hardstanding, a coal stockyard, large industrial buildings, wind turbines, cranes, dock activity, numerous industrial and trading estates, a sewage treatment works, gas works and Seabank Power Station in the north of this Section. Industry continues northeast of Seabank Power Station and includes Severnside Works, Severn View Industrial Park, Avalon Works and the Western Approach Distribution Park. The M49 and M5 motorways are parallel to the east.

6.4.238 Beyond this to the northeast of Section G the landscape is more remote from industry and rural in character referring to Hallen Marsh, divided into an irregular field pattern by hedgerow and field drains. Hallen Marsh is set amongst large industrial scale features, the M49 motorway, gasworks and various landfill type operations. There are also a number of existing 132kV overhead lines.

Photograph 6.16: View from Clayton Street in Avonmouth looking southwest towards industrial buildings at Avonmouth Dock

6.4.239 Settlement in Section G includes the village of Avonmouth contained by industrial buildings and activity at Avonmouth Dock to the south and west. Avonmouth also extends southeast onto rising ground east of the M5 motorway along Shirehampton and Lawrence Weston east of the M5. There are numerous PRoW running through Section G including the Severn Way long distance route, National Cycle Route 41 and a footpath network across and to the east and south of Hallen Marsh. The small settlement of Hallen is in the northeastern extent of Section G between the M49 and the M5 motorways, and is east of the BW Route and G Route running northeast and northwest towards Seabank Substation adjacent to Seabank Power Station.

6.4.240 There is higher ground to the south of Section G including Tickenham Ridge in the adjacent Section E, and to the east in Section G including Kings Weston Hill, Coombe Hill and Spaniorum Hill. Woodland is a feature on the slopes and on the top of this higher ground.

6.4.241 The majority of Section G comprises development relating to industry including structures such as cranes and plant, buildings and areas of hardstanding. Vegetation cover softens the industrial character of this area in places and includes mature trees, hedgerow and scrub along the M5 motorway and the A369 The Portbury Hundred, along the disused railway, around the periphery of car storage areas and the coal stockyard, and defining field boundaries across land north of Avonmouth Substation and across Hallen Marsh.

Photograph 6.17: View from PRoW LA8/40 looking north across the settlement of Pill towards industrial buildings and dockland activity at Avonmouth in the distance

Section G: Landscape Value

6.4.242 There are no national or local level landscape designations in Section G.

6.4.243 Section G comprises The Royal Portbury Dock and Avonmouth, and settlement including Shirehampton and Lawrence Weston on rising ground to the east of the M5 motorway.

6.4.244 The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section G, include:

- generally flat low-lying land adjacent to the River Severn and the River Avon;
- mature trees, and hedgerow along the M49 motorway and local roads, and around car storage areas and industry;
- Hallen Marsh, comprising farmland defined with hedgerow and tree field boundaries with aspects of more remote and rural character set amongst an otherwise industrial, and developed landscape; and
- higher ground with woodland, to the east including Coombe Hill and Spaniorum Hill, and Tickenham Ridge to the south.

6.4.245 The Royal Portbury Dock and Avonmouth in Section G are important industrial areas adjacent to the River Severn and the River Avon, and close to motorways and the City of Bristol. The heritage of this area and the wider landscape of the City of Bristol and the Severn Estuary are valued nationally. However the landscape in Section G has a strong urban and industrial character. This landscape has some recreational value, including a number of long distance footpath and cycle routes, including the Severn Way along the River Severn and River Avon, PRoW across Hallen Marsh, (although with limited access during field assessment in 2013), and PRoW on higher ground to the east near settlement and running through woodland in places. Kings Weston Park and Gardens is also on higher ground to the east with views towards Avonmouth within Section G.

6.4.246 Overall, the landscape in Section G is assessed as having local value.

Section H: Hinkley Line Entries: Landscape Character

6.4.247 Many of the landscape characteristics described in published landscape character assessments are present across the site of the proposed Hinkley Line Entries and in the surrounding area in Section H. The remote coastline and coastal marsh with the prominent power station are readily apparent. There is low-lying mixed farmland and wetland with ditches and rhynes dividing fields, sometimes with scrubby vegetation.

Photograph 6.18: View from the West Somerset Coast Path looking southwest across coastline and coastal marsh towards the existing Hinkley Point Power Station Complex and the ZG Route, VQ Route and ZZ Route backgrounded by the Quantock Hills AONB

6.4.248 The landscape south of the proposed Hinkley Line Entries across Wick Moor and North Moor comprises arable farmland and pasture on land that rises to the south and falls towards a minor road and PRoW WL 23/57 between Wick Moor Drove and Wick. There is horse pasture adjacent to Head Weir House. Field boundaries comprise mature dense hedgerow with occasional trees.

Photograph 6.19: View from Wick Moor Drove looking north and northeast towards the existing Hinkley Point Power Station Complex and overhead lines above intervening trees

6.4.249 The site of the proposed Hinkley Line Entries predominantly comprises flat, low lying wet pasture defined from west to east by mature hedgerow with occasional trees. Ditches across North Moor are open with little scrub vegetation. West Brook and East Brook flow in a northeasterly direction towards Bridgwater Bay. Tree and hedgerow cover varies along these watercourses, being dense closer to Wick and more open where watercourses run northeast across open marshland.

Photograph 6.20: View from PRoW WL23/71 looking southwest across Wick Moor towards existing overhead lines, partly backgrounded by the Quantock Hills AONB in the distance

6.4.250 The existing Hinkley Point Power Station Complex on the West Somerset Coast is prominent in the landscape. The power station site is surrounded by woodland to the south and east. This woodland screens existing substations and ground level activity within the power station site. The ZG, VQ Route and ZZ Routes run south

from Hinkley B Substation and run southeast across the landscape into the distance. These overhead lines run parallel to each other over Wick Moor before running on different routes south of Whitewick Lane.

6.4.251 The existing Hinkley Point Power Station Complex is on higher ground to the north of North Moor and Wick Moor and has a strong influence on this landscape. Wick Moor is a generally open low-lying landscape with long distance views towards the Bristol Channel in the northeast and the Quantock Hills AONB in the southwest. Existing overhead lines feature in the landscape, often visible against the sky above backgrounding by gently rising landform and mature hedgerow beyond.

Section H: Landscape Value

6.4.252 There are no national or local level landscape designations in Section H.

6.4.253 Section H comprises Wick Moor and Coast, and part of the wider Eastern Lowlands. The landscape characteristics and features that have value as individual landscape components, and which contribute to the value of the landscape in Section H, include the:

- medium scale, generally open, flat low-lying mixed farmland, including horse pasture in places, and wetland with ditches and rhynes;
- generally intact boundary mature hedgerow with mature trees;
- the gently sloping landform falling to the open, low-lying Moors;
- the West Somerset coastline; and
- backdrop of the distant Quantock Hills AONB.

6.4.254 However, the landscape in Section H has undergone change as a result of the existing Hinkley Point Power Station Complex, on higher ground to the north, adjacent to the West Somerset Coast. The existing Hinkley Point Power Station Complex is a dominant feature in the local and wider landscape, and which will be extended to include the proposed Hinkley Point C Power Station to the west of existing power stations. Electricity overhead lines also feature in this landscape.

6.4.255 Wick Moor and the Eastern Lowland landscape in Section H are generally well maintained and in good condition, although hedgerows are fragmented in places. The existing Hinkley Point Power Station Complex has a strong influence on landscape character.

6.4.256 The landscape in Section H is assessed as having local value.

Summary of Existing Landscape Character within Sections A - H

6.4.257 Further to the review of landscape designations and published national and local landscape assessments, and taking account of information from consultation and field survey, a summary of landscape character within Sections A to H (within the 3km study area) is provided below.

Landscape Designations

6.4.258 There are no national or local landscape designations within Sections A to H of the project study area, excluding Section C which includes the nationally designated landscape of the Mendip Hills AONB.

6.4.259 Section C includes the western extent of the Mendip Hills AONB, which comprises a range of limestone hills that stretch eastwards from the Bristol Channel rising dramatically above the flat Somerset Levels and Moors.

6.4.260 The Quantock Hills AONB is approximately 9.5km to the southwest at its closest point to the proposed 400kV overhead line on Horsey Level where it would meet the VQ Route. The Quantock Hills are approximately 5km (at its closest point) to the southwest of the proposed overhead line modifications at Hinkley Point. The Quantock Hills stretch southeastwards from the Bristol Channel as a 19km long ridge standing high above the surrounding agricultural plain. The ridge comprises open moorland and heath and extensive views are possible across the surrounding landscape.

Landscape Character

6.4.261 Landscape character within Sections A to H broadly comprises the flat, low-lying and generally rural Somerset Levels and Moors, which are more extensive to the south and north of the Mendip Hills AONB; ridges (including Puriton Ridge, the Mendip Hills AONB and Tickenham Ridge) that run east west dividing the lower lying landscape; isolated hills and higher ground to the east and west of the Somerset Levels and Moors; the dockland and industrial landscape near Portishead and at Avonmouth; and the low-lying Wick Moor and undulating farmland surrounding the existing Hinkley Point Power Station Complex on the West Somerset coast.

6.4.262 To the south of the Proposed Development the Vale of Taunton and Quantock Fringes (NLCA146) and the Quantock Hills (NCA 144) are approximately 2km and 6.5km (at their closest points respectively) to the southwest of Bridgwater Substation.

6.4.263 The southern end of the proposed 400kV overhead line runs across Horsey Level, part of the wider Somerset Levels and Moors landscape, and defined by the M5 motorway, the A39 and King's Sedgemoor Drain. Horsey Level comprises flat low-lying farmland divided by the River Parrett, field drains and 'rhynes', including Bath Road Rhyne. Woodland is a feature of Puriton Ridge including Home Covert and Chisland Covert, and there is mature parkland tree cover on Knowle Hill.

6.4.264 Puriton Ridge provides a backdrop to the lower lying landscape in the south including Horsey Level as well as to the more expansive Somerset Levels and Moors to the north. Puriton Ridge is in the Mid Somerset Hills (NLCA 143), which also extends across land in the eastern extent of Section B south of the Mendip Hills AONB.

6.4.265 The Somerset Levels and Moors (NCA 142), extends across the majority of the project study area to the south and north of the Mendip Hills AONB, and comprises a broad area of wet pasture, arable and wetland surrounded and divided by rhynes which form a planned reclaimed landscape. The Levels are closer to the coast and comprise a belt of clay that restricts the drainage of the Moors further inland.

6.4.266 South of the Mendip Hills the Somerset Levels and Moors landscape includes Woolavington Level, Huntspill Moor and Mark Moor in the south. This part of the Levels and Moors also includes the Huntspill River in the south and the River Brue running northwest. In the north the Old River Axe and Mark Yeo generally meander across farmland.

6.4.267 The landscape of the Somerset Levels and Moors generally consists of irregularly shaped pastoral and arable farmland bordered by hedgerows and divided by field drains and 'rhynes' particularly across Horsey Level, and across farmland north of Puriton Ridge and the Mendip Hills AONB. Further east from the coast, low-lying farmland is interrupted in places by steep landscape features such as Crook Peak and the ridgelines of Puriton, Tickenham and the hills of Mendip AONB. These often have wooded valley slopes and ridgelines create a distinct backdrop and skyline that provide expansive views across the low-lying generally pastoral landscape.

6.4.268 The Mendip Hills AONB is in the Mendip Hills NCA (NCA 141). The western part of the Mendip Hills AONB within Section C includes the broad low-lying valley of the Lox Yeo River which is surrounded by the higher ground of the Mendip Hills including Crook Peak, Compton Hill and Wavering Down to the south; Loxton Hill to the west; and Banwell Hill and Sandford Hill to the north and north east.

6.4.269 Crook Peak is a prominent feature in the landscape across the valley and is also a backdrop to the Somerset Levels and Moors to the south. It is characterised by open high ground with rock outcrops. This hill contrasts with adjacent hills which are characterised by woodland and pasture.

6.4.270 The Somerset Levels and Moors north of the Mendip Hills AONB is a low-lying generally flat and predominantly pastoral Moors landscape. There is a regular and geometric field pattern across the southern part of this landscape north of Banwell and west of Congresbury and particularly across Kenn Moor and Nailsea Moor in the north. There is a more irregular field pattern partly defined by sinuous 'rhynes' and ditches between Kenn in the north and Puxton in the south.

6.4.271 The Bristol Avon Valleys and Ridges (NCA 118) extends across higher ground to the east of the Somerset Levels and Moors north of the Mendip Hills AONB, and encompasses Tickenham Ridge, and Portishead Ridge to the north.

6.4.272 Tickenham Ridge rises steeply from lower-lying land and provides a distinctive backdrop to the Levels in the south and Clapton Moor to the north. In the south the landscape is enclosed in parts with localised low ground and sinuous woodland blocks and belts on higher ground to the north and south.

6.4.273 The northern most part of Tickenham Ridge, Clapton Moor to the north, and The Royal Portbury Docks and Avonmouth are in the Severn and Avon Vales (NCA 106).

6.4.274 The landscape north of Tickenham Ridge comprises generally flat low-lying land across Clapton Moor and across the Gordano Valley to the southwest. Farmland is predominantly grazing land with some arable fields in particular to the south of the A369 The Portbury Hundred. There are numerous horse paddocks and stables. Low lying land in the foreground of Tickenham Ridge rises steeply to the south and at Portishead Ridge to the west and north of the Gordano Valley. Woodland extends across these ridge landscapes.

6.4.275 Avonmouth comprises generally flat low lying land adjacent to the River Severn and the River Avon. To the southeast of this industry is farmland divided into an irregular field pattern defined by hedgerow and field drains.

6.4.276 There is higher ground to the east of Avonmouth including Kings Weston Hill, Coombe Hill and Spaniorum Hill, as well as to the south referring to Tickenham Ridge. Woodland is a feature on the slopes and on the top of the higher ground of this area.

6.4.277 Hedgerow and tree cover varies across Sections A to H, but generally consists of mature hedgerows and hedgerow trees along field boundaries and drains. Hedges are overgrown and or gappy in places and well maintained in others. Field patterns are generally larger across the low lying areas compared to the field pattern on valley slopes and ridges. Field patterns become more irregular when defined by the sinuous 'rhynes' and ditches across the lower-lying landscape. Central areas of the project study area including the Mendip Hills AONB, and Tickenham Ridge, become more enclosed in parts with localised low ground and sinuous woodland blocks and belts on higher ground to the north and south.

6.4.278 Settlement within Sections A to H include Bridgwater in the south (including new housing and industry on the north-eastern edge of Bridgwater contained by the M5 motorway); settlement on the northern slopes of Puriton Ridge including Puriton, Woolavington and Cossington, as well as groups of residential properties, and individual farms; small villages including East Huntspill, and Watchfield; and the linear settlements of Mark along Mark Causeway, Rooksbridge and Tarnock along the A38 Bristol Road, and Biddisham along Biddisham Lane.

6.4.279 Settlement in the western part of the Mendip Hills AONB within Section C is generally concentrated on the edges and slopes of the Lox Yeo valley, often nestled at the base of the wooded Mendip Hills. Loxton and Christon are distinctive villages at the eastern edge near the base of Loxton Hill and are designated as Conservation Areas. There are also farms and properties at Barton on the slopes of Compton Hill and isolated properties along the northern and southern valley side roads. Banwell Castle and Winscombe Church are local landmarks visible across the valley. The settlement of Winscombe is in the eastern part of the Lox Yeo Valley and is excluded from the Mendip Hills AONB designation

6.4.280 Settlement in the central part of the Somerset Levels and Moors north of the Mendip Hills AONB includes Yatton, North End, Kenn and individual properties along Kenn Road. Settlement is more remote elsewhere, including across Puxton Moor and across parts of Nailsea Moor, Clevedon Moor and Tickenham Moor in the north. Landscape character in the north is influenced by the large settlement of Nailsea and development along the B3130 including Stone-edge Batch, Tickenham and Tickenham Court.

6.4.281 On the edge and northern slopes of Tickenham Ridge there are scattered farmsteads including Naish Farm and Little Naish, and few villages linked by rural roads including Portbury on lower ground near the M5. South of the M5 to the east of Portbury, beyond the A369 are the settlements of Easton-in-Gordano and Pill.

6.4.282 Portishead and Portbury Wharf are the main settlements in the lower lying northwestern extent of Clapton Moor. New housing development on the edge of Portbury Wharf has extended the development edge further east. There are large

car depots and storage areas to the east of Portishead accessed off The Drove and surrounded by fencing and tree planting with tall lighting columns. There are large warehouses and dockland activity further east at The Royal Portbury Dock, with dockland activity, cranes and wind turbines at Avonmouth visible beyond.

6.4.283 Settlement further north includes the residential area of Avonmouth surrounded by dockland activity and industry. South of the M5 motorway are the larger settlements of Shirehampton and Lawrence Weston on rising ground. The small settlement of Hallen is in the most northern extent between the M49 and the M5 motorways.

6.4.284 The M5 motorway is a visible man-made feature running through Sections A to G, including through the Mendip Hills AONB. Development in the southern part of the project study area includes a large Morrison's distribution centre on the edge of Bridgwater, the former Royal Ordnance Factory across Woolavington Level, and a factory at East Huntspill. Industry is dominant and extensive in the north at Avonmouth, and includes large warehouses and depots, car storage areas comprising large areas of fenced hardstanding, a coal stockyard, large industrial buildings, wind turbines, cranes, dock activity, numerous industrial and trading estates, a sewage treatment works, gas works and Seabank Power Station in the north. There is also industry northeast of the Seabank Power Station site.

6.4.285 Near the West Somerset Coast, the eastern part of the proposed Hinkley Line Entries site is in the Somerset Levels and Moors (NCA 142) and the western and southern extent is in the Vale of Taunton and Quantock Fringes (NLCA 146). The landscape consists of a remote coastline with coastal marsh, with the prominent Hinkley Point Power Station Complex on the West Somerset coast. There is low-lying mixed farmland and wetland with ditches and rhynes dividing fields, sometimes with scrubby vegetation. The landscape south of the proposed Hinkley Line Entries comprises arable farmland on slightly higher ground.

6.4.286 Settlement close to the proposed overhead line modifications at Hinkley Point include Wick to the south, Shurton to the southwest, Stogursey further south and Stolford to the west. Stockland Bristol is approximately 2km to the southeast, and Cannington is more distant approximately 5.5km to the southeast. Nether Stowey is approximately 5km southwest of the proposed Hinkley Line Entries.

6.4.287 The landscape as a whole (within Sections A to H) includes several existing electricity overhead lines, predominantly 132kV overhead lines with larger 275kV and 400kV overhead lines in the south and north of the project study area, as well as at Hinkley Point in the vicinity of the existing Hinkley Point Power Station Complex.

Landscape Value within Sections A - H

6.4.288 The value of the landscape across the project study area is highest across the Mendip Hills in Section C where the landscape is designated as an AONB and has national value. There are no national or local landscape designations across other Sections of the project study area.

6.4.289 The Somerset Levels and Moors abut the nationally designated landscape of the Mendip Hills to the south and to the north and are within the setting of the Mendip Hills AONB. Puriton Ridge in the south and Tickenham Ridge in the north are beyond 10km from the Mendip Hills AONB, and distance and topography prevents

intervisibility between the Mendip Hills and the Levels landscape south of Puriton Ridge and Clapton Moor to the north of Tickenham Ridge. The proposed modifications to existing overhead lines at Hinkley Point in Section H are not within designated or locally protected landscape areas and are approximately 5km northeast of the Quantock Hills AONB at its closest point.

6.4.290 In general the landscape across the project study area has local value. The landscape within the setting of the Mendip Hills AONB is noted as having greater value, but no greater than of local value.

6.4.291 Avonmouth (comprising dockland activity and industry adjacent to the River Severn and the River Avon) has limited local landscape value due to the strong urban and industrial character of this landscape.

Landscape Quality or Condition

6.4.292 The quality or condition of a landscape contributes to determining the value of a landscape.

6.4.293 The rural landscape across Sections A to H generally is in good condition and generally is intact. The predominantly agricultural landscape across the Somerset Levels and Moors, south and north of the Mendip Hills AONB, is managed, although hedgerows are fragmented and gappy in places. The Mendip Hills landscape is managed as part of the Mendip Hills AONB Management Plan (Ref 6.6) and is in good condition. The M5 is an urban influence running north south through the lower lying valley of the Mendip Hills AONB which is included in the project study area.

6.4.294 In the south of the project study area, urban and industrial development concentrated to the west of the M5 motorway influences landscape character in the vicinity of Bridgwater. The landscape to the north across The Royal Portbury Dock and Avonmouth is heavily influenced by industry and port development. The condition of Clapton Moor to the southeast and east of Portishead is generally good due to active management of pasture land, Portbury Wharf Nature Reserve and the Gordano Valley Nature Reserve in the west. However the rural and generally remote landscape of Clapton Moor is influenced by the visible urban edge of Portishead, the M5 and views to dockland activity to the east and northeast.

6.4.295 The landscape at Wick Moor near the West Somerset Coast is strongly influenced by the existing Hinkley Point Power Station Complex. The rural landscape generally is in good condition; although hedgerows are fragmented in places.

Future Baseline Environment

6.4.296 A description of the current baseline environment is provided above; it is also appropriate to consider the changing nature of the environment in the event that the Proposed Development is not constructed or operated. As detailed in **Volume 5.5.1, section 5.6** this is referred to as the 'future baseline' and represents a do nothing scenario.

6.4.297 This part of the chapter considers what the landscape may be like in the future in the absence of the Proposed Development (the future baseline), and what the environment (i.e. the 'base case') is anticipated to be when the impacts of the Proposed Development would arise.

6.4.298 The nature of the future baseline is influenced by a combination of natural and man-made processes. When considering the future landscape baseline below, consideration has been given to ash dieback disease (*Chalara fraxinea*) and the implications this disease might have on the ash tree population within the study area for the Proposed Development.

6.4.299 Major consented development proposals are also able to influence the future baseline as discussed in **Volume 5.5.1, section 5.6**. These are identified and discussed in the cumulative assessment provided at **Volume 5.17,** and have been considered as part of the future landscape baseline below.

6.4.300 Predicting the future baseline environment and the 'base case' involves a degree of speculation and uncertainty, as acknowledged at paragraph 5.33 of GLVIA3 (Ref 6.1).

Future Landscape Baseline

6.4.301 NCA profiles produced by Natural England and published local landscape character assessments reviewed as part of the desk-based landscape assessment, identify the key issues and or forces for change for each NCA, and local character area identified within the relevant authority area.

6.4.302 The Mendip Hills AONB Management Plan 2014-2019 (Ref 6.7) also identifies the vision for the Mendip Hills AONB in 15 years with reference to landscape quality; biodiversity and geodiversity; historic environment and cultural heritage; recreation, access and tourism, natural resources, land management, development and transport, participation.

6.4.303 The landscape in Section A to H continually changes based on agricultural practice and management procedures but would continue to comprise flat low-lying and large scale landscapes divided by ridge landscapes, predominantly rural in character, with strong urban influences in the north adjacent to the River Avon and the Severn Estuary. The landscape in Section H would continue to be rural and remote in character influenced by existing overhead lines and dominated by the existing Hinkley Point Power Station Complex on the West Somerset Coast. The proposed Hinkley Point C Power Station, a committed development discussed further below, would increase the footprint and influence of the existing Hinkley Point Power Station Complex bringing about further change in the local landscape but also comprising a landscape strategy that would introduce additional woodland and recreational value to the local area.

Ash Dieback Disease

6.4.304 Ash (*Fraxinus excelsior*) is a common woodland species and is frequent across the wider countryside. Ash dieback disease (*Chalara fraxinea*), first detected in the UK in 2012, is a threat to Great Britain's ash tree population. The disease can kill young trees within one growing season of symptoms becoming visible and can debilitate more mature trees over several years. This means that it has the potential to influence the future baseline in relation to landscape character and visual effects.

Ash Distribution

6.4.305 There is no one source of information that clearly quantifies the number of ash within woodland or elsewhere in the landscape of the UK.

6.4.306 The Forestry Commission (FC) has estimated that, in British woodlands measuring over 0.5 hectares, 126 million trees out of 1.4 billion broadleaved trees are ash (approximately 9 percent) (Ref. 6.14). In addition, there are an estimated 4.2 billion broadleaved seedlings and saplings in British private sector woodlands, of which ash constitutes an estimated 39 percent.

6.4.307 Analysis of the National Forestry Inventory (NFI) indicates that ash contributes 12 percent to broadleaved stocked area in England (as at 31 March 2011) (Ibid). This figure increases to 12.6 percent in the South West of England, with only the East Midlands having a higher percentage.

6.4.308 The FC estimates the ash population outside woodland and forests in Britain to be 12 million (Ref. 6.14)). An assessment undertaken as part of the Countryside Survey (Ref. 6.15) estimates that there are 1.8 million individual ash trees in the English countryside. There is a large discrepancy between these numbers which may be accounted for by numbers of ash trees in woodlands and tree groups smaller than those considered by the Forestry Commission and also by ash trees in urban areas including parks and gardens. The Countryside Survey concludes that ash is the second most common species of individual tree across Britain and the most frequent hedgerow tree species.

6.4.309 The Joint Nature Conservation Committee (Ref. 6.16) has produced an initial assessment of important ash populations in Great Britain. Important ash is defined as where it is "a significant and hard to replace or re-create semi-natural feature with a strong role in ecosystem functioning". The assessment results indicate that the Proposed Development lies within an area of importance for species associated with ash (e.g. lichens); however, the data is designed to provide a picture of the distribution and scale of important ash at a national scale and cannot be relied upon to provide accurate results at a regional or local level.

6.4.310 The Woodland Trust's veteran tree database (http://www.ancient-tree-hunt.org.uk/discoveries/TreeSearch) does not have records of any veteran ash trees in the Order Limits or within 200m of the Order Limits. 29 veteran ash trees were recorded during the tree survey (see the AIA provided at **Volumes 5.21.1 - Volumes 5.21.3**). Some or all of these trees are likely to meet the criteria for inclusion on the veteran tree database.

6.4.311 998 common ash trees were recorded during the tree survey, accounting for 25.3 percent of all trees recorded as individuals. Ash was also present in 36 percent of surveyed tree groups, collectively covering an area of 43.5ha; the abundance of ash within each group is not known.

6.4.312 There are no accurate available records of the occurrence and distribution of ash trees in the area in which the Proposed Development would be constructed. However it is clear from information available that ash is an important species contributing to landscape character due to its frequent occurrence in woodlands, as hedgerow trees and as individual trees.

Effects of Chalara fraxinea on the Future Baseline

6.4.313 The extent of genetic variability of ash and its role in identifying resistance to Chalara is not fully understood. There is also little understanding of how resistance to Chalara fraxinea can be spread within ash populations. Government advice is not to fell trees as a precaution against future infection (Defra, 2013). This

approach could have adverse consequences for the environment and is unlikely to have any significant effect on the overall spread of the disease. Nonetheless the Chalara Management Plan (Ref. 6.17) identifies southwest England as a High Priority Area for intervention to reduce the rate of spread of the disease (i.e. where the removal of young infected plants will be cost-effective).

6.4.314 197 ash trees would be removed as a result of the Proposed Development; 9 of these can be replaced by newly-planted trees in situ post-construction.

6.4.315 In addition to the proposed removals, 61 ash trees have been identified as requiring crown management; this is likely to take the form of either a reduction in size of one or more dimension or pollard management. The act of pruning (i.e. the creation of pruning wounds) is not known to increase the susceptibility of a tree to the disease. This is due to the primary mode of infection being the colonisation of soft tissue such as the leaf surface. Evidence indicates that young trees, including woodland sapling growth and coppice regrowth are particularly susceptible to infection and rapid decline; such effects are also likely on pollard regrowth. The stimulation of a concentration of young, succulent shoots associated with pollard management is therefore likely to result in a more substantial impact on the host tree in the event of colonisation than on an individual with a larger, more mature crown structure.

6.4.316 The greatest potential influence of Chalara fraxinea is on future baseline in relation to landscape character and visual effects. The effects of Chalara on middle-aged and mature trees would be a thinning of the crown and natural retrenchment as compensatory growth occurs below the area of infection. Depending on an individual tree's resistance, this process of progressive dieback and new growth may continue for several years. Eventually complete tree death would occur.

6.4.317 The future effects of Chalara fraxinea are not predictable. If the disease becomes prevalent and causes deaths of ash trees, its effects are likely to be evenly experienced throughout the wider landscape. There is no indication that it would be more prevalent in the area where the Proposed Development would be constructed than in other areas.

6.4.318 Effects of Chalara fraxinea would mean that there would be a reduction in the density of woodlands where ash is abundant, particularly if more susceptible young trees are present as regenerating trees or as part of recently planted woodlands. In mature woodland, it is likely that there would be a slower die-back and reduced canopy density. These effects would mean that woodland would be less dense when trees are in leaf.

6.4.319 Individual trees, such as hedgerow trees and others in the countryside would be likely to suffer slow dieback as outlined above with eventual tree death. Dead trees are likely to be removed from roads as they pose safety risks. In fields, there may be more standing dead and dying trees.

6.4.320 A reduction in tree cover as a result of Chalara fraxinea would be characteristic of the wider landscape and would not be confined or concentrated to the area where the Proposed Development would be constructed. All forms of built development such as settlement edges, buildings and existing overhead lines which are presently screened and backgrounded by ash trees are likely to be more prominent.

6.4.321 As there is great uncertainty regarding whether and how Chalara fraxinea will affect ash trees in the area where the Proposed Development would be built, the future baseline has not taken account of reduced tree cover.

6.4.322 Chalara fraxinea has been considered specifically due to the relative abundance of ash in the region and the possibility of threats to the wide population of trees. The effects of other diseases known to pose risk to larch, pine, sweet chestnut and horse chestnut have not been considered because, although threats may arise at a site level (i.e. within one group or small area) there is no evidence that these threats may affect the populations through the wider area in a way that ash dieback disease may manifest. Acute oak decline, although a serious problem in other areas of England, has not been considered due to restrictions in its current geographical spread and the absence of evidence that it poses a risk in southwest England.

Planting Mixes

6.4.323 Chalara is known to infect a range of ash species and the UK's native ash (Fraxinus excelsior) is particularly susceptible. Studies are being undertaken to identify a resistant strain but no resistant variety is currently available. Ash has consequently been excluded from the proposed planting mixes discussed in section 6.7 of this chapter.

6.4.324 Pedunculate oak (Quercus robur) is considered to be the most appropriate alternative to planting ash. Oak is the third most abundant tree recorded during the tree survey after willow (as a collective genus) and ash. It is comparable to ash in its mature stature and is appropriate to the existing landscape. Pedunculate oak has been proposed where ash is to be replaced or where ash would otherwise have been a component of proposed planting discussed in section 6.7 of this chapter.

Committed Development

6.4.325 Committed developments have been considered in terms of their potential influence on the future baseline environment, and are presented below where relevant within each Section of the Proposed Development. Committed developments are identified in each Section using the development ID numbers provided in **Volume 5.17.1, Table 17.7**, and are categorised below based on distance from the LoD for the Proposed Development.

Section A: Puriton Ridge

6.4.326 Committed developments in Section A include:

Within 1km

- ID 10: mixed use development between Bridgwater and the M5 on the northeastern edge of Bridgwater;
- ID 18: change of use from agriculture to haulage business at Hillside Farm on Woolavington Road between Puriton and Woolavington; and
- ID 20: sixteen dwellings on Higher Road in Woolavington.

Between 1 and 3km

- ID 8: hospital with associated access, car parking, landscaping and engineering works on the northeastern edge of Bridgwater;
- ID 9: Bridgwater Accommodation Campus (to house 1000 workers for the construction of Hinkley Point C) northeast of Bridgwater town centre (27 month construction from 2014); and
- ID 14: Park and ride, freight management facility and worker induction centre west of Junction 23 M5 and Dunball (associated development for the construction of Hinkley Point C) (12 month construction from 2014).

6.4.327 The above committed developments would not change the landscape baseline potentially affected by the Proposed Development.

6.4.328 The mixed use development on the north eastern edge of Bridgwater (ID 10) would be consistent with and reinforce the existing character of the extended north eastern edge of Bridgwater. Development proposed at Hillside Farm (ID 18) would introduce a change of use within the curtilage of this property with limited influence on the surrounding landscape. Residential development on Higher Road (ID 20) would be consistent with and reinforce the existing character of the western edge of Woolavington.

6.4.329 The hospital (ID 8) on the north eastern edge of Bridgwater, extends the development edge to the M5 motorway, but would not change the landscape baseline potentially affected by the Proposed Development. The accommodation campus (ID 9) to the northeast of Bridgwater town centre would also not change the landscape baseline as the development would be contained within the settlement of Bridgwater.

6.4.330 Development ID 14 would not change the landscape baseline potentially affected by the Proposed Development as it is distant and separated from the proposed 400kV overhead line and CSE compounds by intervening development, including the large Morrison's distribution centre adjacent to the M5 and A38, and Dunball industrial estate.

6.4.331 The committed developments listed below beyond 3km of the LoD for the Proposed Development would not change the landscape baseline potentially affected by the Proposed Development as they are remote to the south or southwest of Bridgwater. (Development IDs 1 to 3 are within 3km of the proposed removal of the F Route and the proposed modifications at Bridgwater Substation.)

- ID1: mixed use development including employment, hotel, petrol filling station; strategic landscaping, infrastructure; and new vehicular and pedestrian access onto the A38, North Petherton, Bridgwater;
- ID 2: Park and ride and freight management facility located north of Junction 24 M5 (associated development for the construction of Hinkley Point C);
- ID 3: 240 homes at Stockmoor Village located south of Bridgwater;
- ID 4: 330 homes at Rhode Lane located southwest of Bridgwater; and
- ID 5: 146 homes at Rhode Lane located southwest of Bridgwater.

Section B: Somerset Levels and Moors South

6.4.332 Committed developments in Section B include:

Within 1km

- ID 19: forty five dwellings and doctor's surgery at Crockers Hill, Woolavington;
- ID 17: remediation of land, including demolition of existing buildings at the Royal Ordnance Factory (ROF) Puriton, Woolavington Road; and
- ID 21: solar energy facility at The Causeway, Woolavington.

Between 1 and 3km

- ID 15: photovoltaic solar park and associated equipment west of the Royal Ordnance Factory Site (ROF) Puriton, Woolavington Road; and
- ID 23: Anaerobic digestion facility, Walpole Landfill Site, Puriton Road, Pawlett.

6.4.333 The above committed developments would not change the landscape baseline potentially affected by the Proposed Development.

6.4.334 Residential development at Crockers Hill (ID 19) would be consistent with and reinforce the existing character of the western edge of Woolavington and would be screened by hedgerows. Development at the ROF site, Puriton (ID 17) would comprise land remediation of a brownfield site and the removal of existing redundant buildings on a site predominantly screened by intervening mature trees and hedgerow. The solar energy facility at The Causeway (ID 21) would be partly screened by existing hedgerows reducing the influence of this facility on the wider landscape.

6.4.335 The photovoltaic solar park (ID 15) would be sited on the western edge of the ROF site, which is surrounded by mature trees, and is a relatively small scale development that would have a limited influence on the landscape baseline potentially affected by a new 400kV overhead line proposed on Puriton Ridge and to the east and northeast of the ROF site.

6.4.336 The anaerobic digestion facility (ID 23) would be distant from the proposed 400kV overhead line and located next to a landfill site and near to existing transport infrastructure, including a railway line and the M5 motorway.

6.4.337 There are no committed developments beyond 3km from the LoD for the Proposed Development in Section B.

Section C: Mendip Hills AONB

6.4.338 There are no committed developments within 3km of the LoD for the Proposed Development in Section C. Beyond 3km, an extension to Callow Rock Quarry is proposed near Cheddar (ID 27); however this development would not change the landscape baseline for this assessment as it is distant from the Proposed Development.

Section D: Somerset Levels and Moors North

6.4.339 Committed development's in Section D include:

Within 1km

- ID 33: packaging building to northern edge of Sandford; and
- ID 45: wind turbine at an extended site comprising warehouse and offices on land off Wemberham Lane in Yatton.

Between 1 and 3km

- ID 39: installation of solar energy farm to the southeast of Congresbury.

6.4.340 The committed developments in Section D would not change the landscape baseline potentially affected by the Proposed Development.

6.4.341 The packaging building on the northern edge of Sandford (ID 33) would be consistent with and reinforce the existing character of this edge of Sandford. The wind turbine on land off Wemberham Lane (ID 45) would be introduced into the landscape already influenced by industrial development on the edge of Yatton and influenced by the F Route running north south through this otherwise rural landscape.

6.4.342 The solar energy farm southeast of Congresbury (ID 39) would not change the landscape baseline potentially affected by the Proposed Development because it is relatively small scale and also distant from the proposed 400kV overhead line.

6.4.343 The following committed developments are over 3km of the LoD for the Proposed Development:

- ID 28 and 29: large mixed use development to south of Weston-super-Mare;
- ID 30: large mixed use development to southeast of Weston-super-Mare; and
- ID 41: extension to infrastructure at Bristol Airport east of Congresbury.

6.4.344 Development ID 28, 29, 30 and 41 above would not change the landscape baseline potentially affected by the Proposed Development as these developments are distant from the proposed 400kV overhead line.

Section E: Tickenham Ridge

6.4.345 There are no committed developments in Section E.

Section F: Portishead

6.4.346 Committed development in Section F includes the following development within 1km of the LoD for the proposed 400kV overhead line on the preferred route (Option A), and the alternative route (Option B):

- ID 50: residential and employment development on brownfield land in Portishead.

6.4.347 Residential and employment development (ID 50) would not change the landscape baseline potentially affected by the Proposed Development as this development would be contained in Portishead, separated from the Proposed Development by existing built form influencing landscape character within the northwestern extent of Section F.

6.4.348 There are no committed developments beyond 1km of the LoD for the Proposed Development in Section F.

Section G: Avonmouth

6.4.349 Numerous committed developments in Section G include:

Within 1km

- ID 51: biomass-fired renewable energy plant including boiler house, steam turbine and cooling towers at Portbury Dock;
- ID 52: extension to existing processing and warehouse building on Marsh Lane in Easton-in-Gordano;
- ID 53: two storey office units off Marsh Lane in Easton-in-Gordano;
- ID 55: erection of three wind turbines, associated bases and cables and control buildings off St Andrews Road, Avonmouth;
- ID 56: change of use of former railway sidings to port-related storage off Gloucester Road, Avonmouth;
- ID 57: fourteen business units on St Andrews Road, Avonmouth;
- ID 58: deep-sea container terminal at Avonmouth Docks;
- ID 59: biomass power plant at St Andrews Road, Avonmouth;
- ID 60: mechanical biological treatment facility at Kings Weston Lane, Avonmouth;
- ID 61: low carbon energy facility at Kings Weston Lane, Avonmouth;
- ID 62: distribution unit (B8) and ancillary buildings on brownfield site at St Andrews Road, Avonmouth;
- ID 63: access road and landscaping off Avonmouth Way, Avonmouth;
- ID 64: four wind turbines and ancillary development at Bristol Sewage Treatment Works;
- ID 65: plant for recycling food waste at Bristol Water Waste Treatment Works Kings Weston Lane, Avonmouth;
- ID 70: change of use from brownfield site to recycling facility at Chittening Road, Avonmouth;
- ID 72: two wind turbines on former Shell Tanker site at Severn Road, Avonmouth;

- ID 73: bio-fuel renewable energy plant at Severn Road, Avonmouth;
- ID 74: resource recovery centre at Severn Road, Avonmouth;
- ID 75: change of use to expand recycling operations at Severn Road, Avonmouth;
- ID 76: anaerobic digestion facility at Severn Road, Avonmouth;
- ID 77: change of use for energy recovery centre at Severn Road, Avonmouth;
- ID 78: ash recycling facility at Severn Road, Avonmouth; and
- ID 81: Severnside mixed use development (1030 hectares) (also within 1-3km of the LoD for the Proposed Development).

Between 1 and 3km

- ID 66: materials recovery park at Kings Weston Lane, Avonmouth;
- ID 67: development to recycle and sort waste materials at Kings Weston Lane, Avonmouth; and
- ID 68: industrial and office buildings at St Andrew's Road, Avonmouth.

6.4.350 Committed developments in Section G are not anticipated to significantly change the landscape baseline potentially affected by the Proposed Development These developments would introduce new development of varying scales and types into an area heavily influenced by existing industry and large scale buildings, wind turbines, dock cranes and existing overhead lines, and which includes Seabank Power Station to the northeast.

6.4.351 The Severnside mixed use committed development (ID 81) is an outline planning permission granted in 1957 for a variety of industrial and business uses. The development phasing of the area is guided by a number of masterplans for parts of the consented area of land to the north of the Proposed Development. Development phasing to the southern part of the consented area of land, adjacent to the Proposed Development is not available. As there is less detailed information available about this committed development than the other committed developments identified, it is considered more appropriate to consider ID 81 as part of the assessment of potential cumulative effects (see **Volume 5.17**).

6.4.352 It has been noted that recent earthworks in the Severnside area has resulted in the loss of landscape features, and an alteration of land levels. Proposed and consented development in this area would result in further change to the landscape character of this area, (and also result in changes to the visibility and visual context of the proposed 400kV overhead line in receptor views including PRoW).

6.4.353 There is one committed development beyond 3km of the LoD for the Proposed Development, referring to the decommissioning of Oldbury Nuclear Power Station in South Gloucestershire (ID 86). This development would not change the landscape baseline potentially affected by the Proposed Development, as Oldbury Power Station to the northeast is distant.`

Section H: Hinkley Line Entries

6.4.354 Numerous committed developments within 3km of the LoD for the Proposed Development in Section H include:

Within 1km

- ID 93: ongoing operation and future decommissioning of Hinkley Point B Nuclear Power Station;
- ID 94: decommissioning Hinkley Point A Nuclear Power Station;
- ID 95: building for storage of intermediate level of radioactive waste materials;
- ID 96: Hinkley Point C Power Station including two nuclear reactors; and
- ID 97: replacement of two existing transformers and intermediate switchrooms at Hinkley Point A.

Between 1 and 3km

- ID 91: creation of wildlife habitat at Steart Drove, Steart Peninsula through managed realignment; and
- ID 92: creation of wildlife habitat at South Bank, Steart Peninsula through managed realignment.

6.4.355 Committed developments ID 95 and 97 are not anticipated to change the landscape baseline potentially affected by the Proposed Development as they are consistent with existing development and are contained within the existing Hinkley Point Power Station Complex.

6.4.356 As identified in **Volume 5.17.2, Appendix 17C** the estimated construction start date for the proposed Hinkley Point C Power Station (ID 96) is 2014 and construction is estimated to end in 2026. Construction works for the proposed Hinkley Point C Power Station form part of the landscape base case.

6.4.357 The preliminary construction programme provided at **Volume 5.3.1, Table 3.3** states that the proposed start date for the construction works relating to the proposed Hinkley Line Entries would be January 2016 and the proposed finish date would be November 2018. The construction and the operation of the proposed Hinkley Point C Power Station, (including Shurton Substation), would affect the landscape baseline potentially affected by the proposed Hinkley Line Entries in Section H. The proposed Shurton Substation formed part of EDF Energy's proposals, which were granted Development Consent in March 2013. National Grid is proposing to construct the consented Shurton Substation, and the proposed Hinkley Line Entries (subject to this ES), to connect the proposed Hinkley Point C Power Station to the high voltage transmission network.

6.4.358 The proposed Hinkley Point C Power Station would extend the footprint of existing large scale nuclear development, and would increase the influence of the existing Hinkley Point Power Station Complex in the surrounding landscape.

6.4.359 As stated in the ES for the proposed Hinkley Point C (HPC) Power Station, (Volume 1, Volume 2, section 2.2, Landscape Strategy), when the proposed HPC Power Station is completed the extended HPC Power Station development site area will be landscaped. The landscape strategy is illustrated at Volume 1, Volume 2, Figure 2.1, and includes new woodland, restored field boundaries and farmland, and a network of PRoW. The landscape strategy aims to recreate the existing landform including a wide gently sloping shallow valley over a culverted Holford Stream and by maintaining the relative height and prominence of the Green Lane ridge, ensuring the southern landform will be no higher than 35m AOD.

6.4.360 Following the establishment of woodland proposed in the HPC Power Station Landscape Strategy, there would be increased woodland cover in Section H, which is anticipated to reduce the influence the proposed Hinkley Line Entries in the surrounding area to the southwest and west.

6.4.361 The decommissioning of the Hinkley Point A Power Station (ID 94) is not anticipated to significantly change the landscape baseline potentially affected by the Proposed Development due to the presence of the existing Hinkley Point B Power Station and the proposed Hinkley Point C Power Station adjacent. The decommissioning of the Hinkley Point A Power Station is also estimated to end in 2104, (as identified in **Volume 5.17.2, Appendix 17C),** which is over 80 years after the proposed finish date (November 2018) for the proposed Hinkley Line Entries. The lifespan of a 400kV pylon is greater than other components of a 400kV overhead line, and is typically 80 years; therefore the proposed Hinkley Line Entries would be seen in the context of Hinkley Point A for a number of years.

6.4.362 With regard to the future decommissioning of Hinkley Point B the indicative programme for this work, provided at **Volume 5.17.2, Appendix 17C)**, is unknown, but the start date is stated as being long-term i.e. in excess of 100 years.

6.4.363 The creation of wildlife habitat at Steart Drove and at South Bank (ID 91 and ID 92) would not change the landscape baseline potentially affected by the Proposed Development due to distance and the nature of the proposals which are to enhance the local natural environment.

6.4.364 The following committed developments are beyond 3km of the LoD for the Proposed Development in Section H.

- ID 88: freight laydown facility and road improvements west of Cannington; and
- ID 90: park and ride facility and road improvements south of Combwich.

6.4.365 Development ID 88 and 90 would not change the landscape baseline potentially affected by the Proposed Development as these developments are distant from proposed modifications to existing overhead lines at Hinkley Point.

Landscape Base Case

6.4.366 The ‘base case’ refers to what the environment is anticipated to be when the landscape effects of the Proposed Development would arise. The anticipated construction programme for the Proposed Development (and all of the permanent components) is provided at **Volume 5.3.2, Appendix 3B**. Construction works are anticipated to start in Q3 2015 and are anticipated to be completed by Q3 2019.

6.4.367 The base case in 2015 is not anticipated to be different to the baseline environment, except for where committed developments identified above have been introduced into the landscape, and would influence the landscape baseline potentially affected by the Proposed Development, as discussed above.

6.4.368 The landscape is ever changing based on man-made processes such as agricultural practice and natural processes such as tree and vegetation growth and ash dieback disease. As there is great uncertainty regarding whether and how these would affect landscape and visual amenity in the area where the Proposed Development would be built, the future baseline has not taken account of this.

6.5 Prediction and Assessment of Significance of the Potential Effects

6.5.1 This part of the chapter refers to those components of the Proposed Development which are anticipated to result in effects on landscape character during construction, operation and decommissioning, and which are discussed in **Volume 5.3.1**.

6.5.2 The following assessment identifies and assesses the likely significant effects of the Proposed Development on landscape character during its operation. Operational effects are assessed on completion of the Proposed Development at the opening year and to year fifteen, (in the short and medium-term). The assessment also identifies and assesses the likely significant effects of the Proposed Development on landscape character during construction from Q3 2015 to the opening year and during decommissioning of all components of the Proposed Development. This includes assessment of the removal of the F Route and the partial removal of other 132kV overhead lines, as part of the Proposed Development, along with an assessment of proposed 132kV underground cables work.

6.5.3 The landscape assessment includes consideration of how individual components of the Proposed Development combine to affect landscape character as well as consideration of the inter-relationship of potential effects (between environmental topics) as an intrinsic part of the assessment.

6.5.4 Residual operational effects are assessed at section 6.8 of this chapter. Residual operational effects are landscape effects which would occur from the Proposed Development fifteen years after completion, taking account establishment of guaranteed mitigation measures comprising; planting replacement trees, tree groups and hedges 'in-situ' (following construction); and new planting of trees, tree groups and hedges with new site-specific infrastructure. The assessment of residual effects in this ES does not take account of planting enhancements in the OSPES, **Volume 5.25**, as this is not guaranteed for the reasons explained at section 6.1 and 6.7 of this chapter.

6.5.5 Tree and hedgerow removal and replacement planting required to construct the Proposed Development, identified in the AIA at **Volume 5.21.1, section 7 - 9 and Volume 5.21.3, Figure 21.2**, has been considered as part of this Landscape Assessment.

6.5.6 Verified photomontages are provided at **Volume 5.18**. **Volume 5.7, section 7.5** provides further information regarding the production of a digital model and verified photomontages for the Proposed Development.

Source of Effect(s)

6.5.7 Those components of the Proposed Development that are anticipated to result in an effect on landscape character (including landscape features such as hedgerows and trees), during the operation, construction, and decommissioning stages of the Proposed Development, are discussed in **Volume 5.3.1**.

6.5.8 The landscape effects have been considered based on the Works Drawings and on the basis that the proposed route of the overhead line and underground cables would be subject to the LoD identified in **Volume 5.5.1, section 5.6** and in **Volume 5.5.3, Figures 5.1 and 5.2**.

6.5.9 The LoD provide a necessary and proportionate degree of flexibility as to the final alignment of the works. The LoD identify a maximum distance or measurement of variation within which these works must be constructed. This comprises:

- lateral LoD;
- longitudinal LoD; and
- vertical LoD.

6.5.10 In practice, there are limitations posed by the angles achievable, the span lengths between pylons to minimise numbers of pylons and to maintain clearance from the ground without exceeding the maximum height, and the need to avoid environmental features such as ancient woodland and veteran trees. These limitations mean that it is not likely that there would be substantial variation from the design of the connection shown in the application.

6.5.11 The Order Limits, identified in the Proposed Development Plans as a red outline, (see **Volume 5.3.3, Figures 3.1 – 3.2**), are fixed and detail the anticipated maximum extent of land in which the Proposed Development may take place (if approved and subject to Development Consent Order Requirements and any other associated commitments). Work within the Order Limits would comprise site-specific components, and components with the potential to be sited anywhere within the Order Limits. In addition to the Proposed Development components, fixed, site-specific components comprise:

- substations and extensions and modifications to existing substations;
- CSE compounds;
- removal of existing 132kV overhead lines;
- temporary construction compounds;
- bell mouth locations; and
- visibility splays.

6.5.12 Construction components with the potential to be sited anywhere within the Order Limits (subject to any restrictions set out in the DCO Works Plans) comprise:

- haul roads;
- other access roads;
- pylon working areas;
- scaffolding and associated working area;
- equi-potential zones (EPZ);
- crossings; and
- indicative access for future maintenance.

Source of Effect(s) during Construction

6.5.13 Construction of the Proposed Development is anticipated to be undertaken between late 2015 and late 2019 as detailed in the construction programme (see **Volume 5.3.2, Appendix 3B**). Landscape effects associated with the construction of the Proposed Development would be temporary and short-term (0 to 5 years), except where permanent tree loss cannot be avoided.

6.1.2 The sources of landscape effects associated with the construction of each component of the Proposed Development refer to:

- construction compounds;
- temporary access, bell mouths and watercourse crossings;
- temporary overhead lines;
- 400kV and 132kV overhead line construction;
- 400kV and 132kV underground cables installation;
- CSE compound construction;
- substation construction;
- bridge crossing construction; and
- removal of the F Route and part of the ZG, VQ, ZZ, AT, W, G, and BW Routes including pylons and foundations removed in full.

6.5.14 The measures for lighting during construction of the Proposed Development are detailed in the Draft Construction Environmental Management Plan (CEMP) at **Volume 5.26.1**.

6.5.15 Lighting will be used only when required during core working hours, unless otherwise stated. Winter working may require task-specific lighting due to the short day lengths when lighting would be required at the beginning and end of the day. Lighting will comprise:

- lighting of work areas and access or egress;
- construction compounds will not be lit at night outside core working hours, except for welfare and site security cabins;
- lighting will be used in areas of high security risk;
- cable jointing will require 24/7 lighting inside the covered structures that will surround the cable jointing bays.
- lighting will be required outside the covered structures for security and access or egress; and
- other works required to be undertaken outside of the normal working hours (identified in **Volume 5.26.1, section 2.3**) may also require lighting.

Source of Effect(s) during Operation

6.5.16 The continued presence of the proposed 400kV and 132kV overhead lines, CSE compounds and Sandford Substation, cables bridge crossing over Towerhead

Brook, and the cables bridge option over the River Axe, during operation would give rise to adverse effects on landscape character.

6.5.17 The sources of landscape effects associated with the operation of each element of the Proposed Development refer to:

- J400kV and 132kV overhead lines;
- CSE compounds;
- proposed and existing substations;
- bridge crossings; and
- 400kV Hinkley Line Entries.

6.5.18 National Grid would also require access to ensure the Proposed Development could be appropriately maintained during operation. Future maintenance access would typically be made by foot, 4x4 vehicle, or tractor and trailer, and typically would not require any new temporary accesses; however access to tension pylons may require temporary stone roads or aluminium track way to be laid. Upon completion of any maintenance works, surfaces would be restored to their condition at the commencement of the works.

Source of Effect(s) during Decommissioning

6.5.19 Activities during decommissioning of the Proposed Development in Sections A to H would be very similar to those during construction but generally these would take place for a shorter duration. Pylons would be removed including all foundations, and 400kV and 132kV underground cables would be removed in full.

Assessment of Potential Effects on Landscape Character

6.5.20 The following paragraphs provide the assessment of the likely significant effects of the construction and of the presence of the Proposed Development on landscape character. The likely significant effects of decommissioning works on landscape character have also been assessed.

6.5.21 In assessing the significance of landscape effects, an assessment of the sensitivity of the landscape and the magnitude of effect on the landscape as result of the Proposed Development is presented below. The assessment of landscape sensitivity takes account of the value of the landscape, (identified for Sections A to H of the Proposed Development in section 6.4 above), and the landscape's susceptibility to change, determined below for each Section.

6.5.22 Tree and hedgerow removal required to construct the Proposed Development and replacement planting, is identified in the AIA at **Volume 5.21.1**, and is illustrated at **Volume 5.21.3, Figures 21.2** and **Figures 21.3.** Tree and hedgerow removal has been considered as part of this landscape assessment.

6.5.23 The landscape assessment is discussed in relation to each Section of the Proposed Development (in Sections A to H), and is summarised for the project study area as a whole.

6.5.24 The following landscape assessment should be read with the Figures at **Volume 5.6.2,** as they assist the understanding of the descriptions and assessments

presented. Verified photomontages at **Volumes 5.18.2** and **5.18.3** produced for each Section A to H (at viewpoints identified at **Volume 5.18.1, Figures 18.1.1 - 18.1.9**), are included in the assessment text for illustrative purposes only. For correct perspective viewing the verified photomontage figures should be referenced.

Section A: Puriton Ridge: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.25 There are existing overhead lines present in the area potentially affected by the Proposed Development. These include the VQ Route to the south of Puriton Ridge; the F Route which runs in a north south direction over Puriton Ridge; and the ZG Route to the north of Puriton Ridge in Section B. The presence of existing overhead lines in the landscape reduces the susceptibility to change of the landscape from the Proposed Development, (compared to if there were no existing overhead lines in the landscape), particularly as the F Route would be removed as part of the Proposed Development.

6.5.26 The Horsey Level landscape is also influenced by urban and industrial development on the edge of Bridgwater to the east and Puriton Ridge would provide backgrounding to the proposed 400kV overhead line. Horsey Level, (part of the wider Somerset Levels and Moors), which is a flat generally open landscape, would generally be able to accommodate the proposed 400kV overhead line without suffering detrimental effects on its character. The susceptibility to change of the Horsey Levels landscape in Section A to the proposed 400kV overhead line is medium.

6.5.27 The Puriton Ridge landscape would be less able to accommodate the Proposed Development, due to its visual prominence in the wider landscape. However higher ground and woodland would provide backgrounding to the proposed 400kV overhead line using the T-pylon. Pylons and the conductors are more difficult to distinguish when viewed against a textured background than against an open sky background. Any backgrounding by vegetation, landform or built form has been considered, as backgrounding generally minimises the scale of change in the landscape (and the view) as is acknowledged in The Holford Rules (Ref. 6.18).

6.5.28 Puriton Ridge is also influenced by urban and industrial development on the edge of Bridgwater and includes the F Route running over the ridge to the east but closer to the route of the proposed 400kV overhead line on northern slopes of the ridge. The susceptibility to change of this ridge landscape would be medium.

6.5.29 There are no national or local level landscape designations in Section A. This Section comprises an area of the Levels and a ridge of higher ground, Puriton Ridge, which have local value.

6.5.30 The sensitivity of the Horsey Level landscape south of Puriton Ridge in Section A to the proposed 400kV overhead line and Bridgwater Tee CSE compounds is medium, as this landscape has a medium susceptibility to change from these components of the Proposed Development and has local value.

6.5.31 The Horsey Levels landscape has a medium sensitivity to the installation of the proposed 400kV underground cables and a low sensitivity to the operation of proposed underground cables due to the Horsey Levels having a low susceptibility

to change to the operation of proposed cables, which would not comprise above ground structures that would influence landscape character.

6.5.32 The sensitivity of the Puriton Ridge landscape in Section A to the proposed 400kV overhead line is medium, as this ridge landscape has a medium susceptibility to change from the Proposed Development and has local value.

6.5.33 The sensitivity of the Horsey Level and Puriton Ridge landscapes to the proposed removal of the F Route (and to the proposed modifications at Bridgwater Substation) would be low as the landscape would be able to accommodate this work without suffering detrimental effects on its character and would have a low susceptibility to change from these works.

6.5.34 **Table 6.10** summarises the sensitivity of the landscape in Section A to the Proposed Development, with reference to the LLCA identified in section 6.4, which would potentially be affected by a component or components of the Proposed Development.

Table 6.10 Summary of Landscape Sensitivity in Section A

Relevant LLCA	**Component of the Proposed Development**	**Susceptibility to Change**	**Landscape Value**	**Landscape Sensitivity**
Polden Hills (PO) Levels (L) Levels – Islands (LI) Clay Moors (C)	Removal of the F Route Modifications at Bridgwater Substation	Low	Local	Low
Levels (L) Polden Hills (PO)	Proposed 400kV overhead line on Horsey Level and Puriton Ridge Proposed CSE compounds Proposed 400kV underground cables (installation and decommissioning)	Medium	Local	Medium
Levels (L)	Proposed 400kV underground cables (operation)	Low	Local	Low

Section A: Puriton Ridge: Construction Effects

6.5.35 In the short-term, temporary landscape effects would arise from proposed construction works including:

- ground level works and limited at-height works to dismantle the F Route between Bridgwater Substation in the south and Woolavington in the north;
- modifications at Bridgwater Substation;
- temporary overhead line south of the VQ Route;
- Bridgwater Tee (Bath Road) temporary construction compound, and construction haul road;
- construction of the proposed Bridgwater Tee CSE compounds (34m by 30m) on Horsey Level;
- installation of approximately 300m of proposed 400kV underground cables between two single circuit CSE compounds on Horsey Level; and
- ground level and at-height works to construct the proposed 400kV overhead line using the T-pylon running across Horsey Level and running northeast southwest across and over Puriton Ridge.

6.5.36 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7.

6.5.37 The proposed removal of the F Route would result in temporary direct adverse landscape effects on the following LLCAs:

- Polden Hills (LLCA PO);
- Levels (LLCA L);
- Levels – Islands; (LLCA LI);
- Clay Moors (LLCA C); and
- Peat Moors (LLCA P).

6.5.38 Along the F Route in Section A, temporary adverse effects would be experienced as a result of access tracks across fields to pylons and scaffolding across roads. The effects would be greatest on the landscape close to the overhead line removal but, as works would largely be at ground level, effects on landscape character generally would be local to the works rather than experienced more widely. The works and activity required to dismantle the F Route including on Puriton Ridge, would result in localised landscape effects of low adverse magnitude. Modifications at Bridgwater Substation would also result in a localised low adverse magnitude of effect on landscape for the short-term. Given the low sensitivity of the landscape in Section A to this construction work, and low adverse magnitude of effects predicted, the significance of effect on landscape character would be **minor adverse**.

6.5.39 The proposed removal of the F Route and modifications at Bridgwater Substation would result in temporary indirect effects on the Peat Moors (LLCA P) and the Quantock Foothills (LLCA QF), within 3km of Bridgwater Substation. However the magnitude of effect on landscape character would be negligible due to distance, intervening development, and the small-scale and localised nature of these temporary works. The significance of effects on these LLCA would be **neutral**.

6.5.40 In the short-term the construction of proposed Bridgwater Tee CSE compounds and the installation of proposed 400kV underground cables on Horsey Level, and the construction of the proposed 400kV overhead line in Section A would result in direct and indirect temporary adverse landscape effects on:

- the Levels (LLCA L); and
- the Polden Hills (LLCA PO).

6.5.41 The construction of the proposed 400kV overhead line on Horsey Level and Puriton Ridge would have **no indirect effects** on the Quantock Hills AONB due to the distance of approximately 9.5km between the proposed works and the designated landscape at its closest point.

6.5.42 Construction would involve temporary access tracks, working areas and operations including at-height working to construct the proposed T-pylons. Temporary access tracks are proposed along existing tracks and often follow field boundaries. However they would introduce new elements into the landscape which would be visible particularly where they use parts of fields other than field boundaries to access proposed pylon positions. In those instances the construction access tracks would result in a localised disruption to the field pattern of the landscape.

6.5.43 On Horsey Level construction works, including a temporary overhead line would be perceptible due to the open nature of the landscape. Other operations which would affect landscape character would be the installation and presence of scaffolding over roads to protect road traffic during the stringing of conductors on the proposed 400kV overhead line and for removal of conductors from the F Route. These structures would have a localised influence on landscape character although their influence would typically only extend to the landscape immediately surrounding the scaffold.

6.5.44 The route of the proposed 400kV overhead line generally runs through an open landscape with low hedgerows. During construction, localised effects on landscape character would result from the removal of hedgerows and trees identified in the AIA at **Volume 5.21.3, Figures 21.2.1 - 21.2.7**. Field patterns are irregular and defined by sinuous drainage ditches or rhynes that would be retained as part of construction works.

6.5.45 Construction activity would disrupt the open and managed character of the Horsey Levels, although it is noted in the Sedgemoor Landscape Assessment (Ref. 6.9) that at Horsey Level there is least tranquillity near the M5 motorway and Bridgwater.

6.5.46 The magnitude of effect on landscape character arising from construction operations in Section A would range from moderate to low adverse.

6.5.47 Moderate adverse levels of effect would be experienced where activity and working areas would be concentrated, for example at the construction compound off Bath Road, at the site of the proposed CSE compounds and the underground cables route, or where the landscape is more open or on elevated ground enabling extensive views. These effects on landscape character would be local to the site of the works and effects would diminish to low adverse further away from the construction operations.

6.5.48 Given the medium sensitivity of the landscape in Section A to the proposed construction of the proposed 400kV overhead line, and CSE compounds and the installation of proposed 400kV underground cables, and the moderate adverse magnitude of effects predicted reducing to low adverse with distance, the significance of effects on the landscape of the Levels (LLCA L), would be **moderate adverse**.

6.5.49 Small woodlands are important features on Puriton Ridge and the proposed 400kV overhead line using the T-pylon would avoid woodland. Works on Puriton Ridge to construct the proposed 400kV overhead line (and to dismantle the F Route to the east) would however be noticeable because the land is elevated and seen from many vantage points. Construction activity would disrupt the more tranquil landscape in this area and would give rise to a moderate adverse magnitude of effect on the Polden Hills (LLCA PO), resulting in a **moderate adverse** significance of effect.

6.5.50 The magnitude and significance of predicted effects on the landscape in Section A during the construction of the Proposed Development is identified in **Table 6.11**.

Table 6.11 Summary of the Magnitude and Significance of Landscape Effects in Section A during Construction

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Construction**
Removal of the F Route Modifications at Bridgwater Substation	Low	Low adverse	**Minor adverse**
Proposed 400kV overhead line on Horsey Level Proposed Bridgwater Tee CSE compounds Proposed 400kV underground cables	Medium	Moderate adverse	**Moderate adverse**
Proposed 400kV overhead line on Puriton Ridge	Medium	Moderate adverse	**Moderate adverse**

Section A: Puriton Ridge: Operational Effects (Opening Year to Year 15)

6.5.51 In the short and medium-term, landscape effects would arise from the Proposed Development in Section A including:

- removal of the F Route and modifications at Bridgwater Substation;
- modifications to the VQ Route at the proposed Bridgwater Tee connection;
- proposed Bridgwater Tee CSE compounds on Horsey Level including landscape mitigation proposals included at **Volume 5.7.3, Figures 7.32.1 - 7.32.4**;
- reinstated and reseeded 400kV underground cables swathe between new Bridgwater Tee CSE compounds on Horsey Level; and
- proposed 400kV overhead line using the T-pylon including running across Horsey Level and running northeast southwest across and over Puriton Ridge.

6.5.52 Approximately 1.5km of new 400kV overhead line using the T-pylon is proposed on Horsey Level, part of the wider Somerset Levels and Moors south of Puriton Ridge. On Puriton Ridge, the alignment of the proposed 400kV overhead line has sought to minimise effects on the ridge landscape by avoiding the steepest slopes, crossing the ridge obliquely and by crossing between blocks of woodland (Home Covert and Chisland Covert).

6.5.53 The proposed 400kV overhead line would be up to approximately 1.5km west of the F Route. The presence of the VQ Route means that the proposed overhead line would not be completely uncharacteristic in the landscape.

6.5.54 The removal of the F Route to the south and running across Puriton Ridge, and the operation of the proposed 400kV overhead line on a different alignment to that of the F Route, (as well as proposed modifications at Bridgwater Substation) would result in beneficial effects on local landscape character of low magnitude. Given the low beneficial magnitude of effects predicted, the significance of the landscape effect would be **minor beneficial** in the vicinity of the F Route removed and in the vicinity of Bridgwater Substation. The following LLCAs would experience localised direct and indirect beneficial effects on landscape character, as a result of the removal of the F Route.

- Polden Hills (LLCA PO);
- Levels (LLCA L);
- Levels – Islands; (LLCA LI);
- Clay Moors (LLCA C); and
- Peat Moors (LLCA P).

6.5.55 The removal of the F Route would result in an indirect negligible magnitude of effect of **neutral** significance on the Quantock Foothills (LLCA QF) within 3km of proposed works at Bridgwater Substation, due to distance and development closer to the Quantock Foothills influencing landscape character in this area.

6.5.56 The proposed Bridgwater Tee CSE compounds and proposed 400kV overhead line in Section A would have **no indirect effect** on the Quantock Hills AONB due to the distance of approximately 9.5km between the proposed 400kV overhead line on Horsey Level and the designated landscape.

6.5.57 Proposed Bridgwater Tee CSE compounds on Horsey Level and the proposed 400kV overhead line in Section A would result in direct and indirect adverse landscape effects on the following LLCAs.

- the Levels (LLCA L); and
- the Polden Hills (LLCA PO).

6.5.58 The proposed Bridgwater Tee CSE compounds would be introduced into the Horsey Level landscape adjacent to the 400kV pylons on the VQ Route. This would result in a localised low adverse magnitude of effect on landscape character.

6.5.59 Given the medium sensitivity of the local landscape to the two new CSE compounds, and the low adverse magnitude of effect predicted, the significance of the effect on landscape character be **minor adverse**.

6.5.60 Following completion of construction works (for the proposed Bridgwater Tee CSE compounds, and proposed 400kV overhead line adjacent), and following the reinstatement of the underground cable swathe on completion of these works, landscape mitigation proposals included at **Volume 5.7.3, Figures 7.32.1 - 7.32.4,** comprising native structure planting, native extra-heavy standard trees and native hedgerow, grass and wildflower meadow seeding, and hedgerow gap planting (with whips and feathered trees) would be in place but not established. In particular, hedgerows and trees would be low (excluding feathered and extra-heavy standard trees) and replanted hedgerows removed during construction, (identified in the AIA at **Volume 5.21.3, Figures 21.2.1 - 21.2.7**), would be visible from the protective fencing preventing damage to them during establishment.

6.5.61 On completion, the reinstated and reseeded 400kV underground cables swathe would be barely perceptible, along with short sections of replanted hedgerow protected with stock-proof fencing, in the Horsey Level's landscape comprising large cultivated fields with gappy hedgerow in places. Grassland across the cables swathe would have established within 1 to 3 years and replacement hedgerow would be established within 3 to 5 years following planting works. The operation of the proposed 400kV underground cables would result in a negligible magnitude of effect on the landscape.

6.5.62 Establishment of reinstated grassland across the cables swathe and in-situ replacement hedgerow referred to above would restore disturbed farmland and affected field boundaries. Given the low sensitivity of the local landscape to the operation of the proposed 400kV underground cables, and the negligible magnitude of effect predicted, the significance of the effect on landscape character would be **neutral.**

6.5.63 The proposed 400kV overhead line across a small part of the Levels and across Puriton Ridge in Section A would introduce a linear development comprising conductors suspended T-pylons at regular intervals into a landscape that includes

existing overhead lines to the south (and north in Section B) and crossing Puriton Ridge.

Photograph 6.21 (Viewpoint VPA7): Existing view from the A39 Puriton Hill truck stop layby, looking southwest across Horsey Level towards the VQ Route

Verified Photomontage 6.1 (Viewpoint VPA7): Anticipated view of the 400kV overhead line supported by T-pylons across Horsey Level. The view includes the proposed Bridgwater Tee connection VQ Route steel lattice pylons and associated CSE compounds including mitigation planting on completion (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.6**)

6.5.64 The proposed 400kV overhead line would be introduced to a different part of Puriton Ridge to that where the F Route presently runs. The new overhead line would be seen running up, across and over the ridge backgrounded by the ridge landform and woodland.

6.5.65 The presence of the VQ Route and the F Route reduces the susceptibility to change of this landscape from the Proposed Development in Section A, compared to if there were no existing overhead lines in the landscape.

Photograph 6.22 (Viewpoint VPA3): Existing view from PRoW BW 2/46 on Puriton Ridge looking south across the southern slopes of Puriton Ridge and Horsey Level to the south

Verified Photomontage 6.2 (Viewpoint VPA3): Anticipated view of the 400kV overhead line supported by T-pylons. The view includes the proposed Bridgwater Tee connection VQ Route steel lattice pylons and associated cable sealing end compounds including mitigation planting on completion (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.3**)

6.5.66 The LoD for the proposed 400kV overhead line would avoid woodland on Puriton Ridge but would result in some permanent removal and pruning of trees and hedgerow including a small area of tree cover surrounding Withy Pool, to accommodate the Proposed Development, as identified in the AIA at **Volume 5.21.1, section 7.7 and** illustrated at **Volume 5.21.3, Figures 21.2.5 - 21.2.7**. Trees and hedgerow along drains and field boundaries are components of the landscape character of Section A. Tree removal would be permanent where trees would infringe safety clearances and would result in localised **minor adverse** significances of effect on local landscape character. In-situ replacement hedgerow planting would restore affected field boundaries.

Photograph 6.23 (Viewpoint VPA8): Existing view from PRoW BW28/1 on Puriton Ridge near Home Covert, looking northeast across Puriton Ridge towards Chisland Covert with Brent Knoll and the Mendip Hills in the distance

Verified Photomontage 6.3 (Viewpoint VPA8): Anticipated view of the 400kV overhead line supported by T-pylons passing over the bridleway on Puriton Ridge, including the connection to the ZG Route, with T-pylons visible in the distance across the Somerset Levels during operation and the F Route removed (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.8**)

6.5.67 The proposed 400kV overhead line in Section A would have a direct and indirect moderate adverse magnitude of effect on the character of Puriton Ridge and the adjacent Levels and Moors landscape to the south and north (in Section B). The greatest magnitude of effect in Section A would be where the proposed 400kV overhead line would cross the Puriton Ridge landscape. However the magnitude of effect on the ridge landscape would also be moderate adverse.

6.5.68 Given the medium sensitivity of the landscape and the moderate adverse magnitude of effect on the landscape in the vicinity of the proposed 400kV overhead line, the significance of effect on the landscape in Section A during operation would be **moderate adverse.**

6.5.69 The magnitude and significance of predicted effects on the Levels landscape and on Puriton Ridge in Section A during the operation of the Proposed Development (between the opening year and year 15) is identified in **Table 6.12**.

Table 6.12 Summary of the Magnitude and Significance of Landscape Effects in Section A during Operation

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Operation (between the opening year and year 15)
Removal of the F Route Modifications at Bridgwater Substation	Low	Low beneficial	**Minor beneficial**
Proposed 400kV overhead line on Horsey Level	Medium	Moderate adverse	**Moderate adverse**
Proposed 400kV overhead line on Puriton Ridge	Medium	Moderate adverse	**Moderate adverse**
Proposed CSE compounds	Medium	Low adverse	**Minor adverse**
Proposed 400kV underground cables	Low	Negligible	**Neutral**

Section A: Puriton Ridge: Decommissioning Effects

6.5.70 During decommissioning of the proposed 400kV overhead line and the proposed Bridgwater Tee CSE compounds in Section A, temporary adverse landscape effects would be similar to those identified for the construction stage but would be experienced for a shorter duration. Landscape effects of **moderate adverse** significance would result from the removal of the proposed 400kV overhead line and localised effects of **moderate adverse** significance would result from the decommissioning of the proposed CSE compounds. Proposed decommissioning works would result in a great scale of change locally and across Horsey Level and in particular on Puriton Ridge for the short-term.

6.5.71 The decommissioning of the proposed 400kV overhead line would result in a beneficial effect on landscape character of **moderate beneficial** magnitude and significance. A localised **minor beneficial** significance of effect on the Horsey Level landscape would result from the decommissioning of the Bridgwater Tee CSE compounds adjacent to the VQ Route.

6.5.72 The decommissioning of the proposed 400kV underground cables would result in a perceivable scale of change for the short-term resulting in a localised **minor adverse** significance of effect on landscape character. In the short and medium-

term, the establishment of grassland and in-situ replacement hedgerow would restore disturbed farmland and affected field boundaries. The reinstated cable swathe would be barely perceptible resulting in a **neutral** significance of effect.

Section B: Somerset Levels and Moors South: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.73 The Somerset Levels and Moors comprise a large scale flat landscape, with hedgerows including trees in places breaking up longer views, surrounded by higher landform providing backgrounding to this landscape.

6.5.74 The landscape is influenced by existing overhead lines. The ZG Route runs through the southern part of Section B and the F Route and the low voltage Bridgwater to Weston-super-Mare overhead line (on steel lattice pylons) run north south through this landscape reducing the susceptibility to change of the landscape from a new 400kV overhead line.

6.5.75 The large scale flat Somerset Levels and Moors landscape generally would be able to accommodate the Proposed Development, (including the proposed 400kV overhead line, the South of Mendip Hills CSE compound, the River Axe bridge crossing, and the proposed 400kV underground cables), without suffering detrimental effects on its character. The most northern part of Section B, in the setting of the Mendip Hills AONB, would have a low susceptibility to change from the operation of proposed 400kV underground cables including hedgerow reinstatement within the proposed cable swathe and infrequent and low-height above-ground structures (the link box pillars) during operation. However the landscape through which the 400kV underground cables are proposed would be within the context of the proposed 400kV overhead line and South of Mendip Hills CSE compound as well as the proposed River Axe cables bridge crossing. The susceptibility to change of the landscape in Section B to the Proposed Development is medium.

6.5.76 There are no national or local level landscape designations in Section B, however the northern part of this Section abuts part of the southern boundary of the Mendip Hills AONB and is within part of the wider setting of the Mendip Hills AONB. The Levels and Moors landscape in Section B is assessed as having local value; however it is acknowledged that the Somerset Levels and Moors landscape in particular in the northern part of this Section contributes to the setting and the 'special qualities' of the Mendip Hills AONB. These special qualities are discussed as part of the assessment of landscape effects predicted in Section C.

6.5.77 The sensitivity of the Somerset Levels and Moors landscape in Section B to the Proposed Development is generally medium, as this landscape has a medium susceptibility to change from the Proposed Development and has local value.

6.5.78 **Table 6.13** summaries the sensitivity of the landscape in Section B to the Proposed Development, with reference to the LLCA identified in section 6.4, which would potentially be affected by a component or components of the Proposed Development.

Table 6.13 Summary of Landscape Sensitivity in Section B

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Polden Hills (PO) Levels (L) Clay Moors (C) Strawberry Belt and Footslope Villages (SB) Bleadon Moor (A5)	Removal of the F Route	Low	Local	Low
Polden Hills (PO) Levels (L) Clay Moors (C) Strawberry Belt and Footslope Villages (SB) Bleadon Moor (A5)	Proposed 400kV overhead line	Medium	Local	Medium
Levels (L) Strawberry Belt and Footslope Villages (SB) Bleadon Moor (A5)	South of Mendip Hills CSE compound River Axe cables bridge option Proposed 400kV underground cables (installation and decommissioning)	Medium	Local	Medium
Levels (L) Strawberry Belt and Footslope Villages (SB)	Proposed 400kV underground cables (operation)	Low	Local	Low

Section B: Somerset Levels and Moors South: Construction Effects

6.5.79 In the short-term, temporary landscape effects would arise from proposed construction works including:

- ground level works and limited at-height works to dismantle the F Route;
- ground level and at-height works to construct the proposed 400kV overhead line using the T-pylon;
- construction work and temporary overhead line associated with the proposed 400kV overhead line connection to the ZG Route;
- A38 Bristol Road overhead line construction compound and underground cables compound west and east of route of the proposed 400kV overhead line;
- construction of the proposed South of Mendip Hills CSE compound (65m by 40m) and an adjacent temporary construction compound; and
- installation of proposed 400kV underground cables in the northern part of Section B;
- temporary bridge over the River Axe, and the permanent cables bridge (preferred option) or Horizontal Directional Drilling (HDD) where the proposed cables would cross the River Axe; and
- HDD where the proposed cables would cross the Old Lox Yeo.

6.5.80 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7 of this chapter.

6.5.81 Construction of the Proposed Development in Section B and the removal of the F Route would result in direct and indirect adverse landscape effects on the following LLCAs:

- Polden Hills (LLCA PO);
- Levels (LLCA L);
- Clay Moors (LLCA C);
- Strawberry Belt and Footslope Villages (LLCA SB); and
- Bleadon Moor (A5)

6.5.82 Construction would result in indirect effects on the Isle of Wedmore, on Isolated Hills including Pawlett Hill and Brent Knoll, and on Bleadon Moor. Construction activity in the northern part of Section B would result in indirect adverse landscape effects on the local landscape within the Mendip Hills AONB, including the Scarp Slope, West Mendip Summits and Cheddar Gorge, and the Mendip Ridge LLCAs.

6.5.83 In the northern part of Section B there would be additional works associated with the construction of the proposed South of Mendip Hills CSE compound near the M5 motorway, and the installation of proposed 400kV underground cables. A

construction compound would be installed to the east and west of the route of the proposed 400kV overhead line north of the A38 Bristol Road.

6.5.84 The area of construction works in the northern most part of Section B would be a noticeable alteration to the landscape due to the extent of the compound and working areas across a relatively open part of the Somerset Levels between the northern part of Biddisham Lane and the M5 motorway. There would also be a swathe and movement and clustering of vehicles that typically are not associated with a rural farmed landscape.

6.5.85 Vegetation would be cleared from the working area prior to construction and topsoil, excavated to create trenches, would be stored for reuse when reinstating the working area. Construction work would also result in disruption to the field pattern of the landscape although tree and hedgerow loss would be minimised and replacement hedgerow planting would be implemented within the cable swathe.

6.5.86 In the short-term, construction works associated with the installation of proposed 400kV underground cables and the proposed South of Mendip Hills CSE compound would give rise to a moderate adverse magnitude of effect on the landscape. The activity from construction machinery, the installation of underground cables and electrical infrastructure in the proposed South of Mendip Hills CSE compound site, and changes to the landscape would introduce a **moderate adverse** significance of effect on landscape character. However adverse effects on landscape character would be restricted to the site of the proposed South of Mendip Hills CSE compound and underground cables swathe and the land immediately around it and would be temporary for the duration of construction works.

6.5.87 In parts of the Levels landscape including across farmland between Pill Road (running northeast southwest to the north of Vole) and Rooks Bridge in the north there is limited hedgerow and tree cover. Construction works would be more noticeable in these areas.

6.5.88 Scaffolding structures would have a localised influence on landscape character typically only extending to the landscape immediately surrounding the scaffold.

6.5.89 The landscape in Section B is generally open with hedgerows of varying heights and condition and localised effects on landscape character would arise from the removal or cutting of trees and hedgerows along the route of the proposed 400kV overhead line prior to construction (identified in the AIA at **Volume 5.21.1**). Field patterns vary including rectilinear fields of varying sizes and a generally irregular and larger field pattern across Huntspill Moor, Mark Moor, and across farmland south and north of Rooksbridge. Field patterns would be retained and sinuous drainage ditches or rhynes defining irregular field patterns would be retained.

6.5.90 The proposed 400kV overhead line would have an adverse effect on hedgerow and trees, as identified in the AIA at **Volume 5.21.3, Figures 21.2.7 - 21.2.18**, resulting in localised low adverse or negligible magnitudes of effect on landscape character of **minor adverse** or **neutral** significance.

6.5.91 The magnitude of effect on landscape character arising from the construction of the proposed 400kV overhead line would range from moderate adverse to low adverse. A moderate adverse magnitude of effect would be experienced where working areas would be clustered or where the landscape is more open and in some

instances visible from elevated ground such as the Mendip Hills and Puriton Ridge. These effects would reduce to low adverse further away from the construction operations.

6.5.92 The F Route either would be dismantled by crane, with sections cut and lowered to the ground, or the legs of the pylon would be cut and it would be pulled to the ground using a tractor before dismantling. Effects on landscape character from the activities of removal generally would be local to the works rather than experienced more widely. Effects of this work would be most noticeable on the landscape immediately adjacent to the working area and also from adjacent high ground.

6.5.93 Where the F Route would be removed, the magnitude of effect generally would be low adverse as pylons would be dismantled on the ground. Localised adverse effects would be experienced as a result of access tracks across fields to pylons and scaffolding across roads. The magnitude of effects would be greater on the landscape close to the F Route removal but, as much of the work would not involve at-height working, effects on landscape character generally would be local to the works rather than experienced more widely.

6.5.94 Overall given the moderate to low adverse magnitude of effects, the effects of construction operations in Section B would be of **moderate adverse** significance.

6.5.95 The magnitude and significance of predicted effects on the landscape in Section B during the construction of the Proposed Development is identified in **Table 6.14**.

Table 6.14 Summary of the Magnitude and Significance of Landscape Effects in Section B during Construction

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Construction**
Removal of the F Route (where the proposed 400kV overhead line deviates from the F Route)	Low	Low adverse	**Minor adverse**
Proposed 400kV overhead line (including removal of the F Route where the proposed 400kV overhead line runs along a similar alignment to the F Route)	Medium	Moderate adverse reducing to low adverse and negligible	**Moderate adverse** reducing to **minor adverse** and **neutral** with distance
Proposed South of Mendip Hills CSE compound	Medium	Moderate adverse	**Moderate adverse**

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Construction
Proposed 400 kV underground cables including proposed cables bridge option	Medium	Moderate adverse	**Moderate adverse**
Overall effect of the Proposed Development in the northern most part of Section B	Medium	Moderate adverse	**Moderate adverse**

Section B: Somerset Levels and Moors South: Operational Effects (Opening Year to Year 15)

6.5.96 In the short and medium-term, landscape effects would arise from the Proposed Development in Section B including:

- absence of the F Route across the flat Somerset Levels and Moors;
- proposed 400kV overhead line using the T-pylon running across the flat Somerset Levels and Moors;
- proposed South of Mendip Hills CSE compound in the northern part of Section B and in part of the setting of Mendip Hills AONB, including landscape mitigation proposals included at **Volume 5.7.3, Figures 7.33.1 - 7.33.5**; and
- reinstated and reseeded 400kV underground cables swathe in the northern part of Section B and in part of the setting of Mendip Hills AONB; and
- permanent cables bridge option over the River Axe in the northern part of Section B, including landscape mitigation proposals included at **Volume 5.7.3, Figure 7.34**.

6.5.97 The proposed 400kV overhead line using the T-pylon would run across the Somerset Levels and Moors between Puriton Ridge in the south and the Mendip Hills in the north. In the southern part of Section B, the proposed 400kV overhead line would run obliquely across the Levels and Clay Moors to join the ZG Route north of Woolavington and east of the point where the F Route crosses. The presence of the ZG Route means that the proposed 400kV overhead line would not be completely uncharacteristic in the landscape.

6.5.98 To the north of the ZG Route, the proposed 400kV overhead line would run to the east of the F Route towards the settlement of Mark. The proposed 400kV overhead line would cross Mark Causeway in a different location to the F Route. A change in direction is proposed north of Northwick Road, and southeast of Vole. North of this point the proposed 400kV overhead line would follow a straighter route more closely aligned with the removed F Route towards Rooks Bridge on the A38

Bristol Road. North of Rooks Bridge, the proposed 400kV overhead line would change direction and run on a direct alignment towards the proposed South of Mendip Hills CSE compound site near a bridge over the M5 motorway and planted embankment.

6.5.99 The Proposed Development in Section B would result in direct and indirect adverse effects on the following LLCAs:

- Polden Hills (LLCA PO);
- Levels (LLCA L);
- Clay Moors (LLCA C);
- Strawberry Belt and Footslope Villages (LLCA SB); and
- Bleadon Moor (A5).

6.5.100 The proposed 400kV overhead line would have an indirect landscape effect on Puriton Ridge in the south, the Isle of Wedmore in the east and Brent Knoll in the west. In the north of Section B, the proposed 400kV overhead line and the South of Mendip Hills CSE compound would also have indirect effects on the Mendip Hills AONB in the north, (including the Scarp Slope, West Mendip Summits and Cheddar Gorge, and the Mendip Ridge LLCAs)

6.5.101 These adverse landscape effects would result from the greater size and scale of the proposed 400kV pylons compared to the 132kV pylons on the F Route, and the introduction of linear development (comprising conductors suspended from T-pylons at regular intervals) into a different part of the Somerset Levels and Moors landscape than where the F Route presently runs (and from where it would be removed). Adverse effects on landscape character would also arise from the proposed South of Mendip Hills CSE compound in the northern part of Section B, and the cables bridge option over the River Axe.

6.5.102 Higher ground including Puriton Ridge, Isle of Wedmore, Brent Knoll, and the Mendip Hills would provide backgrounding to the proposed 400kV overhead line crossing the flat Levels and Moors. The pylons of the proposed 400kV overhead line are anticipated to protrude above the backdrop of these hills in places. These hills provide greater backgrounding to the F Route pylons compared to those of the proposed 400kV overhead line.

6.5.103 The proposed 400kV overhead line would have a moderate adverse magnitude of effect on the Levels and Moors landscape. This effect would be greater but still of moderate adverse magnitude, where the proposed 400kV overhead line takes an alternative alignment to the F Route, including across Huntspill Moor and farmland east of Cote and East Huntspill; across farmland south and north of Southwick Road; across Mark Causeway; south and north of Northwick Road; east of Vole; and west of Biddisham Lane.

Photograph 6.24 (Viewpoint VPB3): Existing view from National Cycle Route 33 Stop Line Way on Burtle Road east of Cote looking northwest towards the F Route

Verified Photomontage 6.4 (Viewpoint VPB3): Anticipated view of the 400kV overhead line supported by T-pylons during operation, with the F Route removed (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.11**)

Photograph 6.25 (Viewpoint VPB26): Existing view from Tile House Road, looking west to northwest across farmland with the F Route visible above trees in the distance

Verified Photomontage 6.5 (Viewpoint VPB26): Anticipated view of the 400kV overhead line supported by T-pylons during operation, with the F Route removed (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.38**)

Photograph 6.26 (Viewpoint VPB7): Existing view west and northwest from PRoW AX 23/5 on Green Drove looking towards the route of the proposed 400kV overhead line running north passing over Mark Causeway with the F Route and Brent Knoll visible beyond above hedgerow and trees.

Verified Photomontage 6.6 (Viewpoint VPB7): Anticipated view west and northwest, from PRoW AX 23/5 along Green Drove, of the proposed 400kV overhead line supported by T-pylons running north passing over Mark Causeway during operation (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.15**)

6.5.104 Where the proposed 400kV overhead line deviates from the route of the F Route, the removal of the F Route would result in a localised low beneficial magnitude of effect of **minor beneficial** significance on landscape character.

Photograph 6.27 (Viewpoint VPB6): Existing view from near The Old Barn on the B3139 Mark Causeway through Mark, looking south across fields along the F Route

Verified Photomontage 6.7 (Viewpoint VPB6): Anticipated view of the 400kV overhead line supported by T-pylons barely perceptible in the distance above trees during operation, with the F Route removed (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.14**)

6.5.105 In the northern part of Section B the proposed 400kV overhead line would have a moderate adverse magnitude of effect on the Levels landscape in part of the setting of the Mendip Hills AONB. The magnitude of this adverse effect on the wider setting of this AONB would reduce with distance to low adverse and negligible.

6.5.106 New electrical infrastructure would be introduced into the site of the proposed South of Mendip Hills CSE compound, comprising pasture defined by hedgerow and trees, within part of the flat and generally open Levels landscape, influenced in this location by the M5 motorway and associated bridges. The taller gantries and sealing ends would represent the more prominent elements of the new infrastructure contained within the proposed CSE compound. Adverse effects would be relatively localised in the wider Levels landscape, and within the setting of

the Mendip Hills AONB. The proposed South of Mendip Hills compound would result in some localised indirect adverse effects on the landscape on higher ground within the Mendip Hills, discussed below as part of the assessment of predicted landscape effects on the Mendip Hills AONB in Section C.

Photograph 6.28 (Viewpoint VPB19-Winter): Existing view from PRoW AX21/3 along the River Axe, south of Loxton, adjacent to the M5 motorway looking south towards the F Route

Verified Photomontage 6.8 Viewpoint VPB19-Winter): Anticipated view of the 400kV overhead line supported by T-pylons connecting to the South of Mendip Hills cable sealing end compound, including mitigation planting on completion (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.19 Winter View**)

6.5.107 The siting of the proposed CSE compound in the field adjacent to the minor road bridge and the M5 motorway would help minimise the influence of this new structure in the surrounding landscape due to screening by the motorway and bridge embankments, by embankment trees and shrubs, and by field boundary hedgerow and trees. The height of gantries has also been minimised to reduce the influence of these taller elements in the new CSE compound in the landscape.

6.5.108 At the opening year, landscape mitigation proposals illustrated at **Volume 5.7.3, Figures 7.33.1 - 7.33.5** including grass, wildflowers, native hedgerows, structure planting and tree planting would be in place but not established. In particular, hedgerows and trees would be low (excluding standard trees) and re-planting of hedges removed during construction would be visible from the protective fencing preventing damage to them during establishment.

6.5.109 The magnitude of effect of the South of Mendip Hills CSE compound would be moderate to low adverse. Given the medium sensitivity of the landscape to the proposed CSE compound and the moderate to low adverse magnitude of effect that would arise, the significance of the landscape effect would be **moderate to minor adverse**.

6.5.110 With regards to the proposed 400kV underground cables in the northern part of Section B, the preferred option to route cables over the River Axe would be via a permanent cables bridge. The other option would be HDD. This would introduce a new structure crossing an open section of the River Axe avoiding loss to mature hedgerow and trees north of the River Axe, and partially extending into farmland both sides of this watercourse. The cables bridge would be in the context of the M5 motorway with associated bridges, beyond flat generally open farmland.

6.5.111 At the opening year, landscape mitigation proposals illustrated at **Volume 5.7.3, Figure 7.34** adjacent to the cables bridge and south of the River Axe, and illustrated at **Volume 5.7.3, Figures 7.33.1 - 7.33.5** (relating to planting along field boundaries, along the M5 motorway and surrounding the South of Mendip Hills CSE compound) would be low (excluding standard trees) and native hedgerow and structure planting would be visible from the protective fencing in place until planting has established.

6.5.112 The proposed cables bridge option would result in a localised moderate to low adverse magnitude of effect on the landscape as it would introduce a prominent new feature into a rural landscape including the M5 motorway with associated bridges. Given the medium sensitivity of the landscape to the proposed bridge option, and the moderate to low adverse magnitude of effect predicted, the significance of the landscape effect would be **moderate to minor adverse**.

6.5.113 The introduction of a potential new bridge structure and new electrical infrastructure at the proposed South of Mendip Hills CSE compound site, into the flat and generally open Levels landscape, along with the proposed 400kV overhead line using the T-pylon, on a similar route to the F Route removed, would result in a **moderate adverse** or **moderate to minor adverse** significances of effect on landscape character in the northern part of Section B. However, the 400kV underground cables proposed in the northern most part of Section B would avoid the long-term adverse effects on landscape associated with an overhead line, and would have a low beneficial magnitude of effect and **minor beneficial** significance of effect on the local landscape due to the removal of the F Route in this location. Overall the significance of landscape effects of the Proposed Development on the landscape in the northern most part of Section B in the immediate setting of the Mendip Hills AONB, would be **moderate to minor adverse** due to the influence of the cables bridge option, and the South of Mendip Hills CSE compound and proposed 400kV overhead line further south.

6.5.114 The proposed 400kV overhead line using the T-pylon would result in a perceivable scale of change for the long-term and would introduce prominent elements into a landscape already influenced by the ZG Route in the south, and by the F Route running roughly north south through the Somerset Levels and Moors, and which would be removed from the landscape as part of the Proposed Development. The proposed 400kV overhead line generally would have a moderate adverse magnitude of effect on the Somerset Levels and Moors landscape in Section B,

which has a medium sensitivity to the Proposed Development, resulting in a **moderate adverse** significance of effect. Adverse effects on landscape character would reduce with distance. The proposed 400kV overhead line would have a greater adverse effect where the proposed overhead line takes an alternative alignment to the F Route, including where it crosses the linear settlement of Southwick and Mark on a different alignment to the F Route. However, the significance of this effect would also be **moderate adverse**.

6.5.115 The magnitude and significance of predicted effects on the landscape in Section B during the operation of the Proposed Development (between the opening year and year 15) is identified in **Table 6.15**.

Table 6.15 Summary of the Magnitude and Significance of Landscape Effects in Section B during Operation

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Operation (between the opening year and year 15)**
Removal of the F Route (where the proposed 400kV overhead line deviates from the route of the F Route)	Low	Low beneficial	**Minor beneficial**
Proposed 400kV overhead line (including removal of the F Route where the proposed 400kV overhead line runs along a similar alignment to the F Route)	Medium	Moderate adverse reducing with distance to low adverse and negligible	**Moderate adverse** reducing with distance to **minor adverse** and **neutral**
Proposed South of Mendip Hills CSE compound	Medium	Moderate to low adverse	**Moderate to minor adverse**
Proposed 400kV underground cables in the northern part of Section B	Low	Low adverse (until the establishment of the cables swathe and in-situ replacement hedgerow in the short and medium-term) reducing to negligible	**Minor adverse** reducing to **neutral** in the medium-term

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Operation (between the opening year and year 15)
Proposed River Axe cables bridge option	Medium	Moderate to low adverse	**Moderate to minor adverse**
Overall effect of the Proposed Development in the northern most part of Section B	Medium	Moderate to low adverse	**Moderate to minor adverse**

Section B: Somerset Levels and Moors South: Decommissioning Effects

6.5.116 The decommissioning of the proposed 400kV overhead line, South of Mendip Hills CSE compound, 400kV underground cables and the cables bridge option over the River Axe (in the north of Section B) would result in similar adverse effects on landscape character as those identified for the construction stage but would be experienced for a shorter duration. Decommissioning of the Proposed Development in Section B would result in temporary adverse landscape effects of **moderate adverse** significance in the short-term, reducing with distance to **minor adverse** and **negligible**.

6.5.117 Following the decommissioning of the Proposed Development in Section B there would be beneficial effects on landscape character of **moderate beneficial** or **moderate to minor beneficial** significance.

6.5.118 Following the decommissioning of the proposed 400kV underground cables, (which would involve removing the cables in full), a short-term low adverse magnitude and **minor adverse** significance of effect would arise due to the reinstated cables swathe and working areas being perceptible. This landscape effect would reduce to being of negligible magnitude and **neutral** significance as reinstated grassland across the cables swathe would have become established in the short-term and in-situ replacement hedgerow would be established in the medium-term. The removal of link box pillars along the proposed 400kV underground cables route would result in localised beneficial effects of **minor beneficial** significance.

6.5.119 The decommissioning of the Proposed Development within the northern part of Section B would be seen from certain locations on the southern slopes and high ground of the Mendip Hills in Section C. These indirect effects on landscape character are identified as part of the assessment of effects on landscape character in Section C below.

Section C: Mendip Hills AONB: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.120 Section C comprises the most western extent of the Mendip Hills AONB, which is a designated landscape of national value.

6.5.121 Valley landscapes often have a higher susceptibility to change from a new overhead line compared to an open flat landscape, as the overhead line can appear dominant where the valley forms a narrow enclosed landscape. The Lox Yeo Valley in the Mendip Hills AONB is broad and has gently sloping valley sides. The F Route runs through the AONB on lower ground along the valley, with the valley sides and woodland providing backgrounding.

6.5.122 The susceptibility to change of the landscape in Section C from a new 400kV overhead line on a similar alignment to the F Route proposed to be removed is medium. A new overhead line supported on the taller 400kV pylons (compared to the 132kV pylons on the F Route) would increase the influence of an overhead line in the designated and nationally valued landscape. Given that this landscape has national value and would have a medium susceptibility to change from a new 400kV overhead line, the sensitivity of the landscape to a new 400kV overhead line would be high.

6.5.123 However the Proposed Development in Section C comprises 400kV underground cables installed below low ground through the Lox Yeo valley and is 'embedded mitigation'. The valley is characterised by pastoral and arable farmland bound by hedgerows with few trees and includes the meandering Lox Yeo River and associated riparian trees. The landscape on lower ground in the valley (influenced by the F Route) has a lower susceptibility to change from the installation of proposed underground cables compared to the wooded higher ground of the adjacent hills where works would likely have a greater influence on the surrounding landscape and would need to be routed to avoid or minimise woodland tree loss.

6.5.124 The designated landscape in Section C generally would be able to accommodate the installation of proposed 400kV underground cables and associated construction activity including removal of the F Route, without suffering detrimental effects on its character; and would have a medium susceptibility to change from this aspect of the Proposed Development. The sensitivity of this landscape to proposed construction (and decommissioning) works is assessed as being high given the medium susceptibility to change and the national value of this landscape.

6.5.125 The sensitivity of the AONB landscape in Section C to the Proposed Development in Sections B and in Section D would also be high.

6.5.126 Following the reinstatement of the underground cables swathe, infrequent and low-height above-ground structures (link box pillars) would be present as new features in this designated landscape where underground cable sections would be joined. Disturbed ground would be reinstated and reseeded, and hedgerows that would be removed during construction would be replanted to restore field boundaries within the proposed cables swathe. The susceptibility to change of the landscape in Section C from the operation of the proposed 400kV underground cables is assessed as being low.

6.5.127 The Mendip Hills AONB landscape in Section C has a low susceptibility to change from the operation of proposed 400kV underground cables and has national value.

The sensitivity of this landscape to the operation of the Proposed Development would be medium.

6.5.128 However the nationally designated Mendip Hills AONB landscape in Section C would have a medium susceptibility to change and a high sensitivity to the operation of the Proposed Development in Sections B and D due to the nature of these components of the Proposed Development in the setting of the Mendip Hills AONB.

6.5.129 The sensitivity of the landscape within the Mendip Hills AONB (in Section C), to the Proposed Development is identified in **Table 6.16**. The table references the LLCA identified in section 6.4, which would potentially be affected by a component or components of the Proposed Development.

Table 6.16 Summary of Landscape Sensitivity in Section C

Relevant LLCA	**Component of the Proposed Development**	**Susceptibility to Change**	**Landscape Value**	**Landscape Sensitivity**
Strawberry Belt and Footslope Villages (SB) Scarp Slope, West Mendip Summits and Cheddar Gorge (SS) Lox Yeo River Floodplain (B2) Lox Yeo Rolling Valley Farmland (J1) River Yeo Rolling Valley Farmland (J2)	Proposed 400kV underground cables (installation and decommissioning), and the removal of the F Route	Medium	National	High
Strawberry Belt and Footslope Villages (SB) Scarp Slope, West Mendip Summits and Cheddar Gorge (SS) Lox Yeo River Floodplain (B2); Lox Yeo Rolling Valley Farmland (J1) River Yeo Rolling Valley Farmland (J2)	Proposed 400kV underground cables (operation)	Low	National	Medium

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Strawberry Belt and Footslope Villages (SB) Scarp Slope, West Mendip Summits and Cheddar Gorge (SS) Lox Yeo River Floodplain (B2); Lox Yeo Rolling Valley Farmland (J1) Mendip Ridge (E1)	Proposed Development in the setting of the Mendip Hills AONB in Section B	Medium	National	High
River Yeo Rolling Valley Farmland (J2) Mendip Ridge (E1)	Proposed Development in the setting of the Mendip Hills AONB in Section D	Medium	National	High

Section C: Mendip Hills AONB: Construction Effects

6.5.130 In the short-term, temporary landscape effects would arise from proposed construction works including:

- ground level works and limited at-height works to dismantle the F Route;
- Barton Road and Castle Hill temporary construction compounds; and
- installation of proposed 400kV underground cables on a similar alignment to the F Route removed, and the reinstatement of the cables swathe including restoration of soils, cultivation, and seeding and replanting hedgerows in-situ.

6.5.131 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow planted as described in the AIA at **Volume 5.21.1, section 9** and discussed in section 6.7 of this chapter. Tree loss within the cables swathe (discussed further below) would however be permanent.

6.5.132 Construction works proposed in Section C would result in temporary direct and or indirect adverse landscape effects on the following LLCAs:

- Strawberry Belt and Footslope Villages (LLCA SB);
- Scarp Slope, West Mendip Summits and Cheddar Gorge (LLCA SS);
- Lox Yeo River Floodplain (LLCA B2);
- Lox Yeo Rolling Valley Farmland (LLCA J1);
- River Yeo Rolling Valley Farmland (LLCA J2); and
- Mendip Ridge (LLCA E1).

6.5.133 Cables installation would disrupt the field pattern of the landscape predominantly across the Lox Yeo Rolling Valley Farmland (LLCA J1) and across a small proportion of other LLCAs listed above, excluding the higher ground of the Scarp Slope, West Mendip Summits and Cheddar Gorge LLCA, and the Mendip Ridge LLCA.

6.5.134 The underground cables swathe would run through fields where boundary hedgerows are generally low with few hedgerow trees, and where hedgerow is fragmented in places. There would be some unavoidable loss of hedgerows and trees within the underground cables swathe running through this landscape. Tree and hedgerow loss would be minimised through the reduction of the working width of the cable swathe at hedgerow field boundaries. As identified in the Biodiversity and Nature Conservation ES chapter at **Volume 5.8.1, section 8.5**, hedgerow losses are assumed to be no more than 5m from the outermost cable trenches. This varies along the cables route but on average measures 45m through the 400kV underground cables swathe.

6.5.135 HDD would also be undertaken to avoid tree loss where the cables swathe crosses the Lox Yeo River. HDD is an option where the proposed cables route crosses Webbington Road and Castle Hill; however open cut trenches (with associated

hedgerow removal) is the preferred crossing option in these locations. Hedgerow and tree loss in Section C is identified in section 7.9 of the AIA at **Volume 5.21.1**, and is illustrated at **Volume 5.21.3, Figures 21.2.18 - 21.2.22**.

6.5.136 Tree loss to accommodate proposed 400kV underground cables and associated construction access in Section C is recorded in the AIA at **Volume 5.21.1, section 7.9** as being relatively low. Temporary physical protection measures would be implemented for retained trees and hedgerow to prevent direct damage to stems and branches during construction, and to avoid the indirect effects of soil compaction on the healthy functioning of underlying roots. Tree protection fencing and temporary ground protection is discussed in the AIA at **Volume 5.21.1, section 8.3**.

6.5.137 Where trees require removal the change to landscape character would be barely perceptible due to the generally scattered nature of trees across the landscape. The magnitude of effects on landscape character resulting from (permanent) tree clearance in Section C would be negligible, and the significance of this effect would be **neutral**.

6.5.138 Adverse effects on field boundary hedgerow would be temporary. Following completion of construction works and the reinstatement of cable trenches and working areas, removed hedgerow would be replanted along affected field boundaries. Hedgerow replacement planting in Section C is illustrated in the AIA at **Volume 5.21.3, Figures 21.2.18 - 21.2.22**.

6.5.139 To minimise landscape effects on this designated landscape (and effects on the historic environment and biodiversity), the planting of one of four 'species specific' planting mixtures will be used. These 'species specific' planting mixes have been selected using information recorded during the Phase 1 habitat surveys and Hedgerow Regulations assessment, and are detailed in the AIA at **Volume 5.21.1**, **Tables 9.4 - 9.7**. The 'species specific' lists and a schedule of hedgerow sections to which they relate are provided at **Volume 5.21.2, Appendix D**. Replacement hedgerow planting will be undertaken in the first planting season following completion and would be a requirement of the development consent order (DCO), if consent is approved.

6.5.140 The greatest adverse effects on landscape character during construction would result from the noticeable linear swathe of land used for the proposed underground cables and temporary stone haul road and the proposed working areas across the river valley. Construction activities at cable jointing bays including 24/7 lighting would be under cover, minimising disturbance in the surrounding landscape. (An assessment of the effects of construction lighting is provided in the latter part of this section).

6.5.141 Temporary construction compounds would be set up in two locations along the cables swathe. These compounds would be a notable change to the landscape pattern of the river valley. Compounds would be particularly noticeable in close proximity and would be seen from higher ground such as Loxton Hill, Crook Peak and Wavering Down where there are panoramic views along the Lox Yeo river valley. Construction operations and activity would introduce movement and a clustering of vehicles and machines that typically are not associated with a rural farmed landscape. This activity would be a notable alteration to the rural landscape

which, in combination with a prominent linear swathe for cable trenches, would result in a moderate adverse magnitude of effect.

6.5.142 Following the installation of proposed underground cables, cable trenches would be backfilled, the temporary haul road and access tracks would be removed and stockpiled topsoil and subsoil would be replaced and reseeded. To ensure the successful reinstatement of the cables swathe and other construction working areas and compounds, and to ensure the establishment and growth of grass and replacement hedgerow, best practice soil management methods would be followed, including for soil replacement and aftercare. Soil management methods are identified at **Volume 5.3.2, Appendix 3G (8).**

6.5.143 The designated landscape in Section C has a high sensitivity to the proposed installation of 400kV underground cables, and would experience a moderate adverse magnitude of effect. Construction works would result in a great scale of change to landscape character across low-lying valley farmland for the short term, and a partial alteration (temporary) to the rural landscape and to field boundary hedgerow affected. The significance of effect on landscape character and landscape components would be **moderate adverse**. This landscape effect would be short-term for the duration of the proposed construction works.

6.5.144 Construction activities to dismantle the F Route (either by crane, with sections cut or lowered to the ground, or by cutting the legs of the pylon and pulling it to the ground using a tractor before dismantling) would result in a moderate adverse magnitude of effect. Effects would generally be local to the works rather than experienced more widely. Effects of this work would be most noticeable on the landscape immediately adjacent to the working area and also from higher ground. Short-term effects on landscape character resulting from the activities of removal would be temporary and of **moderate adverse** significance.

6.5.145 From Crook Peak, Loxton Hill and Bleadon Hill there are extensive and panoramic southerly views across the Somerset Levels and Moors in Section B where the installation of proposed 400kV underground cables, the construction of the proposed cables bridge option over the River Axe, and or the proposed 400kV overhead line and South of Mendip Hills CSE compound, and the removal of the F Route would be visible (to varying extents) within the immediate setting of the Mendip Hills AONB, extending further south across the wider Somerset Level and Moors landscape.

6.5.146 The installation of the proposed 400kV underground cables and semi-permanent access road in the southern part of Section D, (running northwest and northeast across farmland on lower ground towards the proposed Sandford Substation), and the construction of the substation and proposed 400kV and 132kV overhead lines (and installation of 132kV underground cables) would result in a low scale of change or barely perceptible scale of change on landscape character, experienced from higher ground in the Mendip Hills AONB (including Sandford Hill and Banwell Hill), where there are extensive and panoramic views over the pastoral farmland of the Somerset Moors.

6.5.147 In the short-term, the construction of Proposed Development to the south and to the north of the Mendip Hills AONB in Section C would result in magnitudes of effect on this designated landscape from high ground (including on Crook Peak and

Loxton Hill) ranging from low adverse to negligible. The significance of these indirect effects would range from being of **minor adverse** to **neutral** significance.

6.5.148 Temporary construction works in Section D would result in indirect low adverse or negligible magnitudes of effect on the landscape character of localised high ground in the Mendip Hills including Banwell Hill and Sandford Hill. The significance of these effects would be **minor adverse** or **neutral**.

6.5.149 Taking account of the direct and indirect effects on the Mendip Hills AONB landscape during construction, the overall magnitude of effect on this designated landscape and its setting would be moderate adverse. Given the moderate adverse magnitude of effects predicted within this highly sensitive landscape, the overall significance of effects would be **moderate adverse**.

6.5.150 **Table 6.17** identifies the magnitude and significance of effects on the Mendip Hills AONB landscape (in Section C) during the construction of the Proposed Development within the Mendip Hills AONB (and in its setting in Sections B and D).

Table 6.17 Summary of the Magnitude and Significance of Landscape Effects in Section C during Construction

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Construction**
Removal of the F Route in the Mendip Hills AONB	High	Moderate adverse	**Moderate adverse** (in combination with proposed underground cable works)
Proposed 400kV underground cables, and associated construction activity	High	Moderate adverse	**Moderate adverse**
Construction of the Proposed Development in the setting of the Mendip Hills AONB in Section B	High	Low adverse to negligible (indirect)	**Minor adverse** to **neutral** (indirect)
Construction of the Proposed Development in the setting of the Mendip Hills AONB in Section D	High	Low adverse or negligible (indirect)	**Minor adverse** to **neutral** (indirect)
Overall landscape effects of the Proposed Development on the Mendip Hills AONB, in the short-term during	High	Moderate adverse	**Moderate adverse**

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Construction
construction			

Section C: Mendip Hills AONB: Operational Effects (Opening Year to Year 15)

6.5.151 In the short and medium-term, landscape effects would arise from the Proposed Development in Section C including:

- absence of the F Route running through the Lox Yeo Valley;
- the reinstated and reseeded 400kV underground cable swathe running through the Lox Yeo Valley;
- above ground structures (link box pillars) where cable sections would be joined;
- in-situ hedgerow replacement within the cables swathe; and
- minimal (permanent) tree loss within the cables swathe.

6.5.152 Indirect landscape effects would arise due to the Proposed Development in the setting of the Mendip Hills AONB including:

- removal of the F Route;
- proposed South of Mendip Hills CSE compound in the northern part of Section B, including landscape mitigation proposals included at **Volume 5.7.3, Figures 7.33.1 - 7.33.5**;
- permanent cables bridge option over the River Axe in the northern part of Section B, including landscape mitigation proposals included at **Volume 5.7.3, Figure 7.34**;
- reinstated and reseeded 400kV underground cables swathe in the northern part of Section B and the southern part of Section D;
- permanent bridge, including landscape mitigation proposals included at **Volume 5.7.3, Figure 7.36**; and semi-permanent access road between Towerhead Road and the proposed Sandford Substation;
- proposed Sandford Substation in the southern part of Section D including landscape mitigation proposals included at **Volume 5.7.3, Figures 7.33.1 - 7.33.5**;
- proposed 400kV overhead line supported with T-pylons in Section B and D generally running south and north across the Somerset Levels and Moors;
- removal of part of the N Route and the AT Route; and
- proposed 132kV connection between the N Route and the proposed Sandford Substation; and between Sandford Substation and the AT Route.

6.5.153 The removal of the F Route would result in a beneficial effect on the Mendip Hills AONB valley landscape in Section C. This would give rise to landscape effects of **moderate beneficial** magnitude and significance.

Photograph 6.29 (Viewpoint VPC9): Existing view from PRoW AX 29/28 between Yarberry and Barton looking southwest along the F Route towards Loxton Gap

Verified Photomontage 6.9 (Viewpoint VPC9): Anticipated view of the removal of the F Route on completion (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.48**)

6.5.154 The operation of proposed underground cables would not lead to substantial adverse effects on landscape character in the Mendip Hills AONB. On completion, the reinstated and reseeded 400kV underground cables swathe would be perceptible running across pastoral and arable fields, along with replanted hedgerow protected with stock-proof fencing. This short-term effect on the AONB landscape would be of low adverse magnitude and of **minor adverse** significance.

6.5.155 Grassland across the cables swathe would have established within 1 to 3 years and in-situ replacement hedgerow would be established within 3 to 5 years following planting works. National Grid will guarantee management over a five year period to ensure establishment of grassland and in-situ replacement hedgerow is as intended. The significance of the landscape effect arising from the reinstated cables swathe would reduce to **neutral** in the short-term.

Photograph 6.30 (Viewpoint VPC4): Existing view from Barton Road, northeast of the parking area on the West Mendip Way long distance route looking northwest towards the F Route running on lower ground through the Lox Yeo valley in the Mendip Hills AONB

Verified Photomontage 6.10 (Viewpoint VPC4): Anticipated view of the 400kV underground cables route during operation with the F Route removed (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.42**)

6.5.156 Adverse effects on landscape character resulting from the operation of the proposed 400kV underground cables would result from link box pillars at cable jointing bays surrounded by timber post and rail fencing, and from small numbers of permanent tree loss where trees could not be replaced in replanted hedgerows.

6.5.157 Proposed link box pillars are relatively small scale features that would be introduced into localised parts of the rural landscape, as close to field boundaries as possible, and at intervals along the cable routes, filtered and screening in places by intervening hedgerow and trees. These new features would result in a low adverse magnitude of effect and a **minor adverse** significance of effect in localised areas within the Lox Yeo valley.

6.5.158 As stated above in relation to landscape effects during construction, tree loss to accommodate proposed 400kV underground cables and associated construction access in Section C is recorded in the AIA at **Volume 5.21.1** as being relatively low. The AIA at **Volume 5.21.1, section 9.3** also states that in the instances where it is not possible to plant replacement trees or tree groups in-situ as part of reinstatement of land on completion of construction work, National Grid will offer to undertake replacement planting on the landowners' land, at a ratio of at least four trees for each one lost and will offer to replace areas of tree groups on at least an equal basis to losses. Where possible, and subject to landowner agreement,

National Grid will look to undertake planting as close as possible to the sites where losses occurred provided that the new planting does not interfere with operation of the Proposed Development. If landowners request this planting prior to reinstatement of land, National Grid will undertake it.

6.5.159 Indirect effects on the landscape character of the Mendip Hills AONB would arise where a change to landscape character outside the AONB landscape is apparent from the Mendip Hills, in this instance often from high ground such as Crook Peak and Loxton Hill looking south towards the proposed South of Mendip Hills CSE compound and proposed 400kV overhead line using T-pylons across the Somerset Levels and Moors in Section B.

6.5.160 The beneficial effect on the landscape to the south (within the setting of the Mendip Hills AONB) resulting from the removal of the F Route; and the siting of the proposed CSE compound adjacent to the bridge embankments for the minor bridge crossing the M5 motorway would reduce the overall indirect effects on landscape character in Section C. The location of the proposed South of Mendip Hills CSE compound adjacent to a minor road bridge with bridge embankments planted with trees is in an area with a lower susceptibility to the change proposed.

6.5.161 The cables bridge option over the River Axe, the South of Mendip Hills CSE compound, and the proposed 400kV overhead line using T-pylons would give rise to low adverse or negligible indirect effects. The significance of effects on landscape character within the southern part of the AONB would be **minor adverse** or **neutral**.

Photograph 6.31 (Viewpoint VPC2): Existing view from Crook Peak looking southwest along the F Route across the Somerset Levels and Moors in Section B

Verified Photomontage 6.11 (Viewpoint VPC2): Anticipated view south from Crook Peak of the proposed 400kV overhead line and CSE compound (Image for illustration only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.40**)

6.5.162 To the north indirect effects on the Mendip Hills AONB would arise where changes to landscape character would be apparent from PRoW on the edge of Sandford Hill and to a lesser extent from Banwell Hill. Sandford Substation is proposed to the north of existing development at Sandford including Thatcher's Cider Factory, in an area where the immediate locale is not as susceptible to the change proposed as other sites in the area. This would reduce the significance of indirect effects on the landscape character of the Mendip Hills AONB.

6.5.163 The proposed Sandford Substation would also be on lower ground taking advantage of existing trees and hedgerow and built form, which assist in screening the proposed substation. Panoramic views of pastoral farmland would remain beyond the proposed substation. Sandford Substation would give rise to low adverse to negligible effects of **minor adverse** or **neutral** significance on landscape character within the northern part of the AONB. Effects on the landscape character of the AONB setting are assessed further in Sections B and D.

Photograph 6.32 (Viewpoint VPC13): Existing view north and northeast from PRoW AX 29/68 looking across Sandford towards the Somerset Moors beyond and Tickenham Ridge in the far distance

Verified Photomontage 6.12 (Viewpoint VPC13): Anticipated view north from Receptor C1.F27 PRoW AX 29/68 of Sandford Substation, and the 400kV and 132kV overhead lines during operation (image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.52**)

6.5.164 The landscape in Section C has a medium sensitivity to the operation of the proposed 400kV underground cables. The proposed 400kV underground cables would result in a **neutral** significance of effect on landscape character following the establishment of the cables swathe and in-situ replacement hedgerow, with localised **minor adverse** significances of effect resulting from small scale link box pillars along the route of the proposed underground cables.

6.5.165 The removal of the F Route would result in a **moderate beneficial** significance of effect on this designated landscape.

6.5.166 The South of Mendip Hills CSE compound proposed in Section B to the south of the Mendip Hills AONB, and the proposed Sandford Substation in Section D to the north in addition to the proposed 400kV overhead line (and the 132kV overhead line connections to the north) would give rise to indirect effects on landscape character when seen from high ground within the southern and the northern part of the Mendip Hills AONB in Section C. The significance of these localised indirect effects would be of **minor adverse** or **neutral** significance.

6.5.167 Overall the significance of effect on the character of the nationally designated landscape in Section C, resulting from the proposed Bridgwater to Seabank Connection, would be **moderate beneficial**.

6.5.168 **Table 6.18** identifies the magnitude and significance of effects on the Mendip Hills AONB landscape (in Section C) during the operation of the Proposed Development (between the opening year and year 15) both within the Mendip Hills AONB, and within its setting in Sections B and D.

Table 6.18 Summary of the Magnitude and Significance of Landscape Effects in Section C during Operation

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Operation (between the opening year and year 15)**
Removal of the F Route	Medium	Moderate beneficial	**Moderate beneficial**
Proposed 400kV underground cables	Medium	Low adverse (until establishment of the cables swathe and in-situ replacement hedgerow in the short and medium-term) reducing to negligible	**Minor adverse** reducing to **neutral** in the medium-term
Link box pillars	Medium	Low adverse	**Minor adverse**
Tree removal within the cables swathe and in construction compounds and working areas	Medium	Negligible	**Neutral**
Proposed Development in the setting of the Mendip Hills AONB in Section B	High	Low adverse or negligible (Indirect)	**Minor adverse** or **neutral** (Indirect)
Proposed Development in the setting of the Mendip Hills AONB in Section D	High	Low adverse or negligible (Indirect)	**Minor adverse** or **neutral** (Indirect)
Overall landscape effects of the Proposed Development on the Mendip Hills AONB	Medium (LLCA potentially affected by the Proposed Development within the Mendip Hills AONB) High (LLCA potentially	Moderate beneficial	**Moderate beneficial**

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Operation (between the opening year and year 15)
	affected by the Proposed Development to the south and the north)		

Section C: Mendip Hills AONB: Decommissioning Effects

6.5.169 Within Section C the decommissioning of the proposed 400kV underground cables (involving full removal) would result in similar adverse effects on landscape character as those identified for the construction stage but would be experienced for a shorter duration. Decommissioning operations in Section C would result in temporary adverse landscape effects of **moderate adverse** significance in the short-term.

6.5.170 Following the decommissioning of the proposed 400kV underground cables, a short-term **minor adverse** significance of effect would arise due to the reinstated and reseeded cables swathe and working areas being perceptible. This landscape effect would reduce to being of **neutral** significance as reseeded grassland and in-situ replacement hedgerow in the cables swathe would be established in the short and medium-term. The removal of link box pillars along the proposed 400kV underground cables route would result in localised beneficial effects of **minor beneficial** significance.

6.5.171 Decommissioning operations to remove the proposed 400kV overhead lines and the proposed River Axe cables bridge option, and to decommission the South of Mendip Hills CSE compound and the proposed 400kV overhead line in Section B to the south, would result in indirect temporary adverse effects on the Mendip Hills AONB. The significance of these effects would range from being of **moderate adverse** to **neutral** significance.

6.5.172 The decommissioning of proposed 400kV underground cables, the semi-permanent road to Sandford Substation, the Towerhead Brook bridge crossing, Sandford Substation and the proposed 400kV and 132kV overhead lines in Section D to the north would result in indirect adverse effects on the Mendip Hills AONB. The significance of indirect effects on landscape character within the northern part of Section C would be **minor adverse** or **neutral** for a shorter duration.

6.5.173 Following the decommissioning of proposed structures and electrical infrastructure in Section B and Section D, indirect effects on landscape character in the Mendip Hills AONB would range from being of **moderate beneficial** to **neutral** significance within the southern and northern parts of the Mendip Hills AONB in Section C.

Effects on the Special Qualities of the Mendip Hills AONB

6.5.174 The current Mendip Hills AONB Management Plan 2009 to 2014 (Ref 6.6) sets out five groups of features and characteristics that make the Mendip Hills 'special and significant'. These are identified in the desk-based assessment provided in section 6.4 of this chapter. One of these features and characteristics or special qualities refers to the "*far reaching seasonal views across the Severn Estuary to Wales and across the Somerset Levels to Glastonbury Tor and Hinkley Point.*" (Ref 6.6) The Management Plan 2014 to 2019 (Ref 6.7) refers to these views, but also refers to views towards the Mendip Hills from the Somerset Levels and Moors (and from Exmoor, Quantocks, and the Chew Valley) as being a special quality of the Mendip Hills AONB. This is of particular relevance to this landscape assessment, and to the visual assessment provided at **Volume 5.7.1**.

6.5.175 This landscape assessment and the visual assessment provided at **Volume 5.7.1,** acknowledges that the countryside or the setting, which surrounds the designated landscape of the Mendip Hills AONB is important to supporting the quality and character of the protected landscape itself. The setting of the Mendip Hills AONB comprises the landscape from which the AONB can be seen and the landscape which can be seen from the AONB.

6.5.176 The Proposed Development has been designed to minimise adverse landscape and visual effects on the Mendip Hills AONB, its setting and its special qualities in particular the far reaching views across the Somerset Levels, and views towards the Mendip Hills from the Somerset Levels and Moors. The design of the Proposed Development includes the following:

- 400kV underground cables proposed within the Mendip Hills AONB and within part of the wider setting of this designated landscape avoiding the adverse effects that would result from a new 400kV overhead line;
- measures to ensure the successful reinstatement of the 400kV cables swathe and the re-establishment of grassland and in-situ replacement hedgerow are proposed;
- the F Route would be removed from within the Mendip Hills AONB and within part of its wider setting;
- the proposed South of Mendip Hills CSE compound has been sited further south of the Mendip Hills AONB, in a field adjacent to the M5 motorway, where there is existing partial screening by a bridge embankment and by embankment planting, which would be supplemented with landscape mitigation proposals illustrated at **Volume 5.7.3, Figures 7.33.1 - 7.33.5** and discussed in section 6.7 below**;**
- landscape mitigation proposals provided at **Volume 5.7.3, Figure 7.34** and discussed in section 6.7 below, would filter and screen the cables bridge option over the River Axe in public and private views towards this new structure including from the southern part of the Mendip Hills AONB, and from Waterfront Farm, and properties on Kennel Lane in the northern part of Section B;
- the height of the gantries at the South of Mendip Hills CSE compound has been minimised through the selection of the 'goal post' gantry design agreed during consultation with consultees;

- a new 400kV overhead line using the T-pylon would tend to be visible for a shorter distance in far reaching views across the Somerset Levels from the Mendip Hills AONB than a standard steel lattice pylon, due to its lower height combined with screening by intervening hedgerow and trees; and
- the proposed Sandford Substation has been sited further north of the Mendip Hills AONB, on lower ground north of Sandford, where mature trees and hedgerow would assist in screening the proposed substation, in addition to landscape mitigation proposals illustrated at **Volume 5.7.3, Figures 7.35.1 - 7.35.5** and discussed in section 6.7 below**.**

6.5.177 Direct and indirect effects on landscape character in the Mendip Hills AONB and its setting during the construction, operation and decommissioning of the Proposed Development have been assessed in this landscape assessment and the significance of these effects are set out above.

6.5.178 The assessment of short, medium and long-term visual effects resulting from the construction, operation and decommissioning of the Proposed Development in receptor views from the Mendip Hills in Section C, and in receptor views from the Somerset Level and Moors in Section B towards the Mendip Hills AONB is provided at **Volume 5.7.1, section 7.5** and **section 7.8** and at **Volume 5.7.2, Appendix 7B and 7C**.

Section D: Somerset Levels and Moors North: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.179 The Somerset Moors in Section D comprise a large scale flat landscape, with hedgerows including trees in places breaking up longer views, surrounded by higher landform providing backgrounding to this landscape.

6.5.180 The landscape is influenced by existing overhead lines. The F Route runs north and northeast across the Moors between the Mendip Hills in the south and Tickenham Ridge in the north; the N Route runs northeast southwest between Sandford and Churchill substation in the south of Section D; the AT Route (south of Puxton) runs west to Weston-super-Mare; and the W Route runs between Churchill Substation and Portishead Substation in the north in Section F. The presence of these overhead lines reduces the susceptibility to change of the landscape from the proposed 400kV overhead line (as compared to a landscape without an overhead line) particularly as the F Route and part of the AT Route and the W Route would be removed as part of the Proposed Development in Section D. The W Route would be replaced with 132kV underground cables.

6.5.181 The susceptibility to change and the sensitivity of the landscape in the southern part of Section D, in the setting of the Mendip Hills AONB, from the installation of proposed 400kV underground cables and associated haul road and construction activity is medium. The landscape would generally be able to accommodate these components of the Proposed Development (including temporary and permanent bridges crossing the Towerhead Brook, and permanent tree loss predicted as a result of the proposed cable works) without suffering detrimental effects on its character. Given the landscape's medium susceptibility to change from these works, the sensitivity of this locally valued landscape, (in the setting of the Mendip Hills AONB in the southern part of Section D), would be medium.

6.5.182 The susceptibility to change of the landscape from the operation of proposed 400kV underground cables (comprising infrequent and low-height link box pillars along the cables route) would be low. The sensitivity of the locally valued landscape in the southern part of Section D to the operation of the proposed underground cables is therefore low. This landscape would have a medium sensitivity to change from the permanent bridge crossing Towerhead Brook and from the semi-permanent access road to the proposed Sandford Substation, due to the medium susceptibility to change and local value of this landscape.

6.5.183 The landscape around Sandford in the south of Section D is gently undulating with areas of orchard plantation, frequent trees and tree-lined rhynes. Landscape character is also influenced by development at Sandford including Thatcher's Cider Factory and shop. This landscape has a medium susceptibility to change from the proposed Sandford Substation. The susceptibility to change of the landscape from a new substation further north would be higher in comparison as the landscape becomes more remote and rural and has less tree cover.

6.5.184 The sensitivity of the landscape around Sandford to the proposed substation is medium due to this part of the River Yeo Rolling Valley Farmland landscape (LLCA J2) having a medium susceptibility to change from the proposed substation and the landscape having local value.

6.5.185 The susceptibility to change of the valley farmland landscape from the proposed 132kV connection between Sandford Substation and the N Route, and the removal of part of the N Route would be low, as would the susceptibility to change of the Somerset Moors from the proposed 132kV connection between Sandford Substation and the AT Route, and partial removal of the AT Route. The sensitivity of the locally valued landscape to these components of the Proposed Development would be low.

6.5.186 The large scale flat landscape of the Somerset Moors in Section D generally would be able to accommodate the proposed 400kV overhead line. The Somerset Moors across Nailsea Moor and Tickenham Moor in the northern part of Section D would be less able to accommodate a new 400kV overhead line, where the landscape is more open due to limited or fragmented hedgerow and tree cover. However the susceptibility to change of the landscape from a new 400kV overhead line would be medium due to presence of existing overhead lines and backgrounding by landform.

6.5.187 The sensitivity of the Somerset Moors landscape across Section D to the proposed 400kV overhead line is medium, as this landscape has a medium susceptibility to change from the proposed 400kV overhead line and has local value.

6.5.188 The open character of the landscape in the northern part of Section D with scattered trees and hedgerows and few woodlands means that the landscape to the southwest, west and north of Nailsea has a lower susceptibility to change from the proposed 132kV underground cables compared to a landscape with notable tree cover that would be lost within an underground cables swathe.

6.5.189 The sensitivity of the landscape southwest of Nailsea to the proposed 132kV underground cables, and proposed modifications to the W Route including removal of 132kV pylons and the new CSEPP, would be low. The landscape would have a low susceptibility to change from these components of the Proposed Development and has local value. Selected streets within the southwestern extent of Nailsea would also have a low sensitivity to the proposed 132kV underground cables.

6.5.190 To the west and north of the northwestern edge of Nailsea the landscape's susceptibility to change from the proposed 132kV underground cables extending northwards across Nailsea and Tickenham Moors, in combination with the removal of the W and F Routes, and the construction, operation and decommissioning of the proposed 400kV overhead line, would be medium, due the locally valued landscape having a medium susceptibility to this proposed change.

6.5.191 The landscape's susceptibility to change and sensitivity to the operation of the proposed 132kV underground cables, in isolation of the proposed 400kV overhead line, across farmland adjacent to the settlement edge of Nailsea, and across part of Tickenham Moor, would reduce to being low, due to the absence of above ground structures that would influence local landscape character.

6.5.192 The rural landscape influenced by Churchill Substation and existing overhead lines would have a low susceptibility to change and a low sensitivity to the proposed works at and in the vicinity of Churchill Substation.

6.5.193 There are no national or local level landscape designations in Section D, although the south of this Section abuts part of the northern boundary of the Mendip Hills

AONB. Section D comprises the River Yeo Rolling Valley Farmland and Somerset Moors landscape which have local value.

6.5.194 **Table 6.19** summaries the sensitivity of the landscape in Section D to the Proposed Development, with reference to the LLCA identified in section 6.4, which would potentially be affected by a component or components of the Proposed Development.

Table 6.19 Summary of Landscape Sensitivity in Section D

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
River Yeo Rolling Valley Farmland (J2)	Proposed 400kV underground cables including temporary and permanent bridges over Towerhead Brook, the semi-permanent access road; and removal of the F Route Proposed Sandford Substation	Medium	Local	Medium
River Yeo Rolling Valley Farmland (J2)	Proposed 400kV underground cables (operation)	Low	Local	Low
River Yeo Rolling Valley Farmland (J2) Locking and Banwell Moors (A4) Kingston Seymour and Puxton Moors (A1)	Proposed 132kV connection between Sandford Substation and the AT Route; and removal of part of the AT Route	Low	Local	Low
River Yeo Rolling Valley Farmland (J2)	Proposed 132kV connection between Sandford Substation and the N Route; and removal of part of the N Route	Low	Local	Low
River Yeo Rolling Valley Farmland (J2)	Proposed 400kV overhead line; and removal of the F	Medium	Local	Medium

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Locking and Banwell Moors (A4) Kingston Seymour and Puxton Moors (A1) Kenn & Tickenham Moors (A3)	Route; and 132kV underground cables and removal of the W Route in the northern part of Section D west and northwest of Nailsea			
Kenn & Tickenham Moors (A3)	132kV underground cables (in isolation of the proposed 400kV overhead line) (operation)	Low	Local	Low
Nailsea Farmed Coal Measures (K1) The settlement of Nailsea	Modifications to the W Route southwest of Nailsea; and 132kV underground cables	Low	Local	Low
River Yeo Rolling Valley Farmland (J2)	Proposed works at Churchill Substation	Low	Local	Low

Section D: Somerset Levels and Moors North: Construction Effects

6.5.195 In the short-term, temporary landscape effects would arise from proposed construction activity including:

- ground level works and limited at-height works to dismantle the F Route, and part of the N Route, AT Route and W Route;
- installation of proposed 400kV underground cables including Towerhead Road construction compound;
- temporary and permanent bridge over Towerhead Brook, including landscape mitigation proposals included at **Volume 5.7.3, Figure 7.36**;
- construction of the semi-permanent access road between Towerhead Road and the proposed Sandford Substation;
- construction of the proposed Sandford Substation (the substation compound would be approximately 143m by 217m) and the adjacent Sandford Sub temporary construction compound;

- ground level and at-height works to construct the proposed 400kV overhead line using the T-pylon;
- ground level and at-height works to construct the proposed 132kV connections between the N Route and the proposed Sandford Substation and Sandford Substation and the AT Route, including the temporary AT Route OHL construction compound;
- modifications to the W Route southwest of Nailsea including temporary overhead line;
- installation of 132kV underground cables replacing the W Route including adjacent construction compounds; and
- modifications at Churchill Substation.

6.5.196 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow and trees planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7.

6.5.197 Construction of the Proposed Development in Section D would result in direct and indirect adverse landscape effects on the following LLCAs:

- River Yeo Rolling Valley Farmland (LLCA J2);
- Locking and Banwell Moors (LLCA A4);
- Kingston Seymour and Puxton Moors (LLCA A1); and
- Kenn and Tickenham Moors (LLCA A3).

6.5.198 There would also be indirect adverse landscape effects on the Land Yeo and Kenn Rolling Valley Farmland, and on Cleeve Ridge to the east of the lower lying Moors landscape, and on Tickenham Ridge (in Section E) to the north.

6.5.199 Construction work proposed in and close to Churchill Substation (approximately 3km directly east of the proposed 400kV overhead line) would result in direct adverse effects on the River Yeo Rolling Valley Farmland (LLCA J2). There would be adverse indirect landscape effects on the Locking and Banwell Moors (LLCA A4) 1km to the west.

6.5.200 Construction work for the proposed CSEPP on the W Route southwest of Nailsea, the removal of the W Route north of this CSEPP, and the installation of proposed 132kV underground cables in Section E, would result in direct and indirect adverse effects on the Nailsea Farmed Coal Measures (LLCA K1), on the settlement of Nailsea, and on the Kenn and Tickenham Moors (LLCA A3).

6.5.201 Effects on landscape character generally would be local to the works rather than experienced more widely. Effects of this work would be most noticeable on the landscape immediately adjacent to the working area and also from higher ground in the Mendip Hills to the south, Cleeve Ridge to the east and Tickenham Ridge to the north where there are more extensive views across consistent pastoral farmland. Construction operations would be a noticeable disruption to the generally uniform

and rural character. However these effects would be temporary and would affect small parts of the landscape at any one time. The flat nature of the landscape with frequent trees would mean that these effects would be localised.

6.5.202 Scaffold structures over roads and occasionally in other areas would have a localised influence on character generally extending only to the landscape immediately surrounding the scaffold.

6.5.203 Localised direct effects on landscape character would arise from the removal of hedgerows and hedgerow trees prior to construction, identified in the AIA at **Volume 5.21.3, Figures 21.2.22 - 21.2.36**. This is a landscape of hedgerows with frequent trees in its southern part and with less frequent trees to the north. Hedgerows are generally intact however minor removal would only exert a localised influence on the landscape character. There are no substantial areas of trees or woodlands in this section which would require removal to allow the construction of overhead lines.

6.5.204 The proposals include the construction of Sandford Substation north of Droveway Farm, which would introduce localised but high levels of construction activity into a localised area in the wider Somerset Moors. The works would include a construction compound adjacent to the proposed substation, the realignment of a rhyne, earthworks to provide a level platform for the substation and the construction of electrical infrastructure. The site is currently used as a chicken farm with low metal barns. The activity from construction machinery and changes to the landscape would result in the partial alteration of key features in the landscape, and a great scale of change on the landscape for the short-term. The magnitude and significance of adverse effects on landscape character would be **moderate adverse**. These effects would be for the short-term and would be restricted to the site of the proposed substation and the land immediately around it.

6.5.205 An underground cables route would introduce localised adverse effects extending from the southern boundary of Section D adjacent to the Mendip Hills AONB towards the proposed substation. The route is predominantly across lower lying pastoral farmland with relatively few hedgerows or trees; however it would cross Towerhead Brook which is characterised by an almost continuous line of mature riparian trees. A temporary construction access bridge and a permanent heavy load access and cables bridge would be constructed across Towerhead Brook resulting in the loss of mature trees and hedgerow and the introduction of a new feature into the rural landscape along with construction vehicles using this bridge. This new bridge would be on lower lying ground within the Towerhead Brook valley and in a landscape where there are other mature hedgerows and trees. The Towerhead Brook bridge crossings would result in a localised moderate to low adverse magnitude of effect of **moderate to minor adverse** significance during construction.

6.5.206 Careful siting of the proposed permanent bridge crossing and the cable route to the proposed substation has been undertaken to minimise tree and hedgerow loss. Tree and hedgerow loss would give rise to localised **minor adverse** significance of effect on landscape character. Effects of the underground cables installation from working areas, spoil mounds and access tracks would be of **moderate adverse** significance along the route and in fields adjacent to the works. Beyond this effects would reduce to **minor adverse** or **neutral** significance. Installation of the 400kV

underground cables would be visible from limited vantage points with views over pastoral farmland from higher ground in the AONB. The installation of proposed 400kV underground cables would have a localised **moderate adverse** significance of effect on part of the setting of the Mendip Hills AONB. These construction effects would be temporary and for a short period of time.

6.5.207 Construction activity in Section D would also comprise the removal of the south western section of the N Route witnessed in the landscape in combination with the removal of the F Route, the proposed 400kV underground cables and Sandford Substation proposed in this area. Removal of part of the N Route would contribute to the **moderate adverse** significances of effect anticipated in relation to the proposed substation and underground cables respectively.

6.5.208 Construction activity north of Sandford would also relate to the removal of a section of the AT Route, and the installation of the proposed 132kV overhead line running northwest from the proposed Sandford Substation to a connection on the AT Route. Construction access would be predominantly along existing access tracks and along field boundaries. There would be some tree and hedgerow loss to accommodate these construction works. Effects on landscape features and character across flat farmland in this locality are anticipated to be of low adverse magnitude and **minor adverse** significance.

6.5.209 Proposed works at Churchill Substation would involve the stringing of 132kV conductors, modifications at Churchill Substation and the installation of a new CSEPP and a single circuit 132kV underground cable connection. Construction works predominantly relating to the installation of proposed 132kV underground cables would result in a localised low adverse magnitude of effect on landscape character of **minor adverse** significance.

6.5.210 A section of 132kV underground cables would be installed running across the landscape to the west and north of Nailsea across Tickenham Moor. These works would include the removal of part of the W Route and the construction of a CSEPP. The route of the proposed 132kV underground cables runs across farmland where field boundaries are formed by rhynes and ditches and trees and hedgerows are relatively sparse. The open nature of the landscape means that the influence of the cables installation, and associated working areas and materials storage would be noticeable and would result in effects on landscape character of moderate adverse magnitude. The general absence of trees in the landscape along the 132kV underground cables route means that there would be very little tree loss involved in the works. A section of the 132kV underground cables route is along residential roads within Nailsea. The cables installation works would not be out of character with other street works which are a common feature of urban roads and the temporary effects on townscape character would be of low adverse magnitude and of **minor adverse** significance.

6.5.211 The landscape across Section D shows subtle variations although it is broadly a flat and pastoral landscape with scattered trees and hedgerows. The landscape is described as generally being peaceful and tranquil with areas having a remote character. This character is diluted closer to settlement edges throughout Section D. The majority of the most concentrated areas of work in Section D such as around the proposed Sandford Substation and along the underground cables

routes are generally close to settlement fringes where localised disruption to landscape character already occurs.

6.5.212 Overall, the magnitude and significance of effect on landscape character arising from the construction operations would be **moderate adverse**. Moderate adverse effects would be experienced where working areas would be clustered such as around the substation. Elsewhere **moderate adverse** construction effects would reduce to **minor adverse** and **neutral** further away from the construction operations.

6.5.213 Given the medium sensitivity of the landscape and the moderate adverse to low adverse magnitude of effects, the significance of the temporary effects of construction operations would be **moderate adverse** close to construction activity and on the landscape immediate adjacent but would be **minor adverse** elsewhere.

6.5.214 **Table 6.20** identifies the magnitude and significance of effects on the landscape in Section D during the construction of the Proposed Development.

Table 6.20 Summary of the Magnitude and Significance of Landscape Effects in Section D during Construction

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Construction**
Proposed 400kV underground cables Proposed bridge crossing Towerhead Brook and semi-permanent access road	Medium	Moderate adverse	**Moderate adverse**
Removal of the F Route; the western part of the N Route; and the eastern part of the AT Route	Low	Low adverse	**Minor adverse**
Proposed Sandford Substation	Medium	Moderate adverse	**Moderate adverse**
Proposed 132kV connections between the N Route and the AT Route to Sandford Substation	Low	Low adverse	**Minor adverse**
Proposed 400kV overhead line and removal of the F Route; and 132kV underground cables and removal of the W Route in the northern part of Section D west and northwest of Nailsea	Medium	Moderate adverse	**Moderate adverse**
Modifications to the W Route southwest of Nailsea; and 132kV underground cables	Low	Low adverse	**Minor adverse**
Proposed 132kV underground cables replacing the W Route removed, west and north of Nailsea	Medium	Moderate adverse (in combination with proposed 400kV overhead line works and removal of the F Route)	**Moderate adverse**
Proposed works at Churchill Substation	Low	Low adverse	**Minor adverse**

Section D: Somerset Levels and Moors North: Operational Effects (Opening Year to Year 15)

6.5.215 In the short and medium-term, landscape effects would arise from the Proposed Development in Section D as a result of the:

- removal of the F Route, and part of the N Route, AT Route and W Route;
- reinstated and reseeded 400kV underground cables swathe in the southern part of Section D and in part of the setting of the Mendip Hills AONB;
- permanent cables bridge, including landscape mitigation proposals included at **Volume 5.7.3, Figure 7.36**; and semi-permanent access road between Towerhead Road and the proposed Sandford Substation;
- proposed Sandford Substation in the southern part of Section D and in part of the setting of Mendip Hills AONB, including landscape mitigation proposals included at **Volume 5.7.3, Figures 7.35.1 - 7.35.5**;
- proposed 400kV overhead line using the T-pylon running across the flat Somerset Levels and Moors predominantly on the same alignment as the F Route removed;
- proposed 132kV connections between the N Route and the proposed Sandford Substation and Sandford Substation and the AT Route;
- modifications at Churchill Substation;
- proposed CSEPP on the W Route southwest of Nailsea; and
- reinstated and reseeded 132kV underground cables replacing the W Route north of the proposed CSEPP.

6.5.216 The Proposed Development in Section D would result in direct and or indirect adverse landscape effects on the following LLCAs:

- River Yeo Rolling Valley Farmland (LLCA J2);
- Locking and Banwell Moors (LLCA A4);
- Kingston Seymour and Puxton Moors (LLCA A1); and
- Kenn and Tickenham Moors (LLCA A3).
- Land Yeo and Kenn Rolling Valley Farmland (LLCA J5);
- Cleeve Ridge (LLCA E6) ;
- the Mendip Hills AONB LLCAs (in Section C); and
- Tickenham Ridge LLCAs (in Section E).

6.5.217 Proposed modifications at Churchill Substation (approximately 3km directly east of the proposed 400kV overhead line) would result in direct adverse effects on the

River Yeo Rolling Valley Farmland; and indirect adverse landscape effects on the Locking and Banwell Moors 1km to the west.

6.5.218 The proposed CSEPP on the W Route southwest of Nailsea, the removal of the W Route north of this CSEPP, and the installation of proposed 132kV underground cables, would result in direct and indirect adverse effects on the Nailsea Farmed Coal Measures (LLCA K1), on the settlement of Nailsea and on the Kenn and Tickenham Moors (LLCA A3).

6.5.219 The operation of proposed 400kV underground cables in the southern part of Section D would avoid the adverse effects on landscape character within the setting of the Mendip Hills AONB associated with a new 400kV overhead line, and would have a beneficial effect of low adverse magnitude and **minor adverse** significance on the setting of the Mendip Hills AONB in Section C due to the removal of the F Route in this location.

6.5.220 Proposed 400kV underground cables would introduce localised adverse effects along the route of proposed cables between the southern boundary of Section D adjacent to the Mendip Hills AONB and the proposed Sandford Substation north of Sandford. The route of the proposed 400kV underground cables runs predominantly across lower lying pastoral farmland with relatively few hedgerows or trees; however it would cross Towerhead Brook which is characterised by an almost continuous line of mature riparian trees. A permanent heavy load access bridge including 400kV underground cables, across Towerhead Brook would result in the localised loss of mature trees, hedgerow and farmland and the introduction of a new feature into the rural landscape along with occasional vehicles using this bridge and semi-permanent access road to the proposed Sandford Substation. The new bridge would be on lower lying ground within the Towerhead Brook valley and would be filtered and screened in places by intervening hedgerow and trees. The permanent Towerhead Brook cables bridge crossing would result in a localised moderate to low adverse magnitude of effect of **moderate to minor adverse** significance during the operation of the Proposed Development in Section D.

6.5.221 The landscape in the southern part of Section D (where 400kV underground cables are proposed) would re-establish during operation in the short and medium-term. Remaining effects on landscape character would relate to link box pillars at cable jointing bays surrounded by timber post and rail fencing, the semi-permanent access road, minor tree loss within hedgerows, and the Towerhead Brook cables bridge discussed above. Proposed link box pillars would introduce a relatively small scale features into localised parts of the rural landscape at intervals along the cable route, filtered and screened in places by intervening hedgerow and trees. The proposed semi-permanent access road would be constructed using grasscrete, minimising effects of landscape character. These new features would result in a low adverse magnitude of effect of **minor adverse** significance.

6.5.222 Reinstatement of in-situ hedgerows within the proposed cable swathe would help to reduce the effects on landscape in the setting of the AONB resulting from proposed underground cable works. As hedgerows would be reinstated and tree loss would be minimal there would be a **minor adverse** significance of effects on landscape character. Stock-proof fencing protecting reinstated hedgerow would be seen. Overtime in-situ replacement hedgerows would become established in the short

and medium-term. The significance of effect on landscape character would reduce to **neutral**.

6.5.223 Trees would not be allowed to be planted above the proposed 400kV underground cables (and 132kV underground cables adjacent to Sandford Substation) to replace any lost during the installation of the proposed cables. However the absence of trees within the cable route after installation would not result in a significant adverse effect on landscape character.

6.5.224 Sandford Substation adjacent to Drove Way north of Sandford, and the proposed AT Route connection between the substation and AT Route would introduce adverse effects in the local landscape, to the north of the Mendip Hills AONB. Mature trees and hedgerow on lower ground to the north of the Mendip Hills would assist in screening the proposed substation, and associated 132kV connection, and would help to reduce adverse effects. However a **moderate adverse** significance of effect would arise as the development would introduce new built form into the landscape, which is part of the wider setting of the Mendip Hills AONB.

Photograph 6.33 (Viewpoint VPD1): Existing view from the Strawberry Line long distance route and National Cycle Route 26 on Droveway Bridge looking west towards the F Route and N Route

Verified Photomontage 6.13 (Viewpoint VPD1): Anticipated view of the proposed Sandford Substation and removal of the F Route from Drove Way bridge (Image for illustration purposes, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.54**)

Photograph 6.34 (Viewpoint VPD19 Winter): Existing view from Drove Way north of Sandford, looking south above roadside hedgerows along the F Route towards the Mendip Hills with the N Route just visible above trees

Verified Photomontage 6.14 (Viewpoint VPD19 Winter): Anticipated view of the 400kV overhead line supported by T-pylons, Sandford substation and the cable sealing end platform pylon on the AT Route connection, including mitigation planting on completion (Image for illustration purposes, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.56**)

6.5.225 On completion of the proposed Sandford Substation, grass, wildflowers, hedgerows, structure planting, tree planting and orchard planting illustrated on landscape mitigation proposals included at **Volume 5.7.3, Figures 7.35.1 - 7.35.5**, would be in place but not established. In particular, hedgerows and trees would be low (excluding standard trees) and in-situ replacement hedgerow removed during construction would be visible from the protective fencing preventing damage to them during establishment.

6.5.226 The proposed replacement of the western section of N Route (which runs northeast to Churchill substation) with a shorter section of proposed wood pole overhead line connecting the N Route to the proposed Sandford Substation, would give rise to a negligible effect on landscape character southeast of the proposed substation, and would result in a **neutral** significance of effect.

6.5.227 The introduction of the proposed 400kV overhead line into the Somerset Moors landscape would result in adverse landscape effects due to the greater size and

scale of the 400kV T-pylons compared to the existing 132kV pylons, and the introduction of a linear development into a different part of the Somerset Moors where it deviates from the F Route across Nailsea Moor, and part of Kenn Moor. However the proposed deviation of the proposed 400kV overhead line from the route of the F Route, and the removal of the W Route in the northern part of Section D would bring beneficial effects to the landscape in and adjacent to Nailsea.

Photograph 6.35 (Viewpoint VPD14): Existing view from PRoW LA13/8 part of the Nailsea Round circular route on north edge of Nailsea looking northwest towards the F Route and W Route

Verified Photomontage 6.15 (Viewpoint VPD14): Anticipated view of the 400kV overhead line supported by T-pylons during operation (Image for illustration purposes, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.74**)

Photograph 6.36 (Viewpoint VPD10): Existing view from Nailsea Wall looking northeast along the F Route across Nailsea Moor, and towards the W Route and Tickenham Ridge in the distance

Verified Photomontage 6.16 (Viewpoint VPD10): Anticipated view of the 400kV overhead line supported by T-pylons during operation (Image for illustration purposes, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.69**)

Photograph 6.37 (Viewpoint VPD13): Existing view from Causeway, north of Nailsea, looking northeast across Nailsea Moor and along the road towards Tickenham Ridge

Verified Photomontage 6.17 (Viewpoint VPD13): Anticipated view of the 400kV overhead line supported by T-pylons across Nailsea Moor during operation (Image for illustration purposes, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.73**)

Photograph 6.38 (Viewpoint VPD17): Existing view from PRoW LA16/21 along Land Yeo south of properties on Church Lane in Stone-edge Batch, looking south across Nailsea Moor towards the F Route and W Route

Verified Photomontage 6.18 (Viewpoint VPD17): Anticipated view of the 400kV overhead line supported by T-pylons during operation (Image for illustration purposes, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.78**)

6.5.228 The proposed 400kV overhead line and the substation in Section D would have a moderate to low adverse magnitude of effect on part of the setting of the Mendip Hills AONB, reducing with distance to low adverse and negligible further north.

6.5.229 There would be a **moderate adverse** significance of effect on the Somerset Moors landscape, (which has a medium sensitivity to the Proposed Development), where it runs on the same or similar alignment as the F Route removed.

6.5.230 The proposed 400kV overhead line would have a greater adverse significance of effect (although remaining **moderate adverse**) on the local landscape in Section D where it would change direction between Lampley Road and Kenn Road and where it deviates from the route of the F Route across Nailsea Moor.

6.5.231 The presence of the F Route, N Route, AT Route, and W Route, in particular the F Route, means that this landscape has a lower susceptibility to change from the proposed 400kV overhead line, as compared to there being no existing overhead lines in the landscape.

6.5.232 The higher ground of the Mendip Hills, Cleeve Ridge and Tickenham Ridge would provide backgrounding to the Proposed Development within and crossing the flat low-lying Moors. The proposed 400kV overhead line is anticipated to protrude above the backdrop of these hills in places. Hedgerow and trees across the Somerset Moors provide some filtering and partial screening which would reduce the influence of the proposed 400kV overhead line in the landscape.

6.5.233 The proposed 400kV overhead line would have some direct adverse effects on trees and hedgerows as described in the AIA at **Volume 5.21.1, section 7.10**, and as illustrated at **Volume 5.21.3, Figures 21.2.22 - 21.2.36**. Trees and hedgerow would be removed or cut to allow construction access and removal or cutting to achieve the electrical safety clearances required. Ditches or rhynes, hedgerows and trees are a component of the landscape character of Section D. Occasional tree losses would have result in **minor adverse** significances of effect on landscape character.

6.5.234 The proposed CSEPP near Churchill Substation and the proposed 132kV underground cables following reinstatement would result in a localised low adverse magnitude of effect on landscape character of **minor adverse** significance. New conductors and proposed modifications at Churchill Substation to accommodate the W Route and the Y Route connections would result in a barely perceptible scale of change on landscape character, resulting in a negligible magnitude and **neutral** significance of effect on the landscape, which has a low sensitivity to the Proposed Development. Overall proposed works at Churchill Substation would result in a **minor adverse to neutral** significance of effect on the landscape during operation.

6.5.235 The proposed CSEPP on the W Route southwest of Nailsea would result in a negligible magnitude of effect of **neutral** significance due to the presence of 132kV pylons in this landscape. The proposed 132kV underground cables would also result in a negligible magnitude and **neutral** significance of effect following the establishment of the cables swathe and in-situ replacement hedgerow in the short-term.

6.5.236 The proposed removal of the W Route, and replacing it with 132kV underground cables, would give rise to effects of **minor beneficial** significance on the landscape adjacent to Nailsea.

6.5.237 **Table 6.21** identifies the magnitude and significance of effects on the landscape in Section D during the operation of the Proposed Development between the opening year and year 15.

Table 6.21 Summary of the Magnitude and Significance of Landscape Effects in Section D during Operation

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Operation (between the opening year and year 15)**
Proposed 400kV underground cables	Medium	Low adverse (until establishment of the reseeded cables swathe in the short-term and establishment of in-situ replacement hedgerow) reducing to negligible	**Minor adverse** reducing to **neutral** (with localised **minor adverse** effects)
Proposed bridge crossing Towerhead Brook and semi-permanent access road	Medium	Moderate to low adverse	**Moderate to minor adverse**
Removal of the F Route; the western part of the N Route; and the eastern part of the AT Route	Low	Low adverse	**Minor beneficial**
Proposed Sandford Substation	Medium	Moderate adverse	**Moderate adverse**
Proposed 132kV connections between the N Route and the AT Route to Sandford Substation	Low	Minor adverse	**Minor adverse**
Proposed 400kV overhead line; and removal of the F Route; and 132kV underground cables and removal of the W Route in the northern part of Section D west and northwest of	Medium	Moderate adverse	**Moderate adverse**

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Operation (between the opening year and year 15)
Nailsea			
Modifications to the W Route southwest of Nailsea; and 132kV underground cables	Low	**Low beneficial** (with low adverse effects along the cables swathe in the short-term until the reinstated and reseeded cables swathe becomes established, reducing to negligible)	**Minor beneficial** (with minor adverse effects along the cables swathe in the short-term until the reinstated and reseeded cables swathe becomes established, reducing to **neutral**)
Proposed 132kV underground cables replacing the W Route removed, west and north of Nailsea	Low	Negligible	**Neutral** ((in isolation of the proposed 400kV overhead line)
Proposed works at Churchill Substation	Low	Low adverse to Neutral	**Minor adverse to neutral**

Section D: Somerset Levels and Moors North: Decommissioning

6.5.238 During decommissioning, landscape effects associated with the decommissioning of the Proposed Development in Section D (including in the vicinity of Churchill Substation, and associated with the W Route overhead line and underground cables southwest of Nailsea) would be of a similar significance to those temporary effects identified for the construction stage, ranging from **moderate adverse** to **minor adverse** significance. However adverse effects during decommissioning would be experienced for a shorter duration.

6.5.239 Decommissioning of the proposed 400kV and 132kV underground cables would give rise to similar effects to those of installation, ranging from **moderate adverse** to **minor adverse** significance.

6.5.240 Following the decommissioning of proposed 400kV overhead line would result in beneficial effects on landscape character of **moderate beneficial** significance. A **minor beneficial** significance of effect on landscape character would result from the decommissioning of the proposed Sandford Substation and the removal of the 132kV connections between Sandford Substation and the AT Route, and the N Route.

6.5.241 Following the decommissioning of proposed 400kV and 132kV underground cables, a short-term **minor adverse** significance of effect would arise due to the reinstated and reseeded cables swathe and working areas being perceptible. This landscape effect would reduce to being of **neutral** significance as reseeded grassland and in-situ replacement hedgerow in the cables swathe would be established in the short and medium-term. The removal of link box pillars and the semi-permanent access road to Sandford Substation along the proposed 400kV underground cables route, would result in beneficial effects on local landscape character of **minor beneficial** significance.

Section E: Tickenham Ridge: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.242 Tickenham Ridge is a strong landscape feature which has a close association with the Somerset Levels and Moors on lower ground to the south in Section D. In the southern part of Section E the new 400kV overhead line on the proposed alignment would run across localised lower ground on Tickenham Ridge enclosed by wooded slopes to the north and south. Due to the sense of enclosure provided by the wooded slopes this landscape has a medium susceptibility to change from a new 400kV overhead line. Higher ground and the open north facing slope in the northern part of this Section increases the landscape's susceptibility to change. The northern part of Section E, including the ridge, also has a close association with Clapton Moor on lower ground to the north in the adjacent Section F.

6.5.243 Both the F Route and the W Route are in Section E. These 132kV overhead lines run on parallel alignments north of the B3130 Clevedon Road, and run parallel in a northeast direction on localised low ground enclosed to the north and south by wooded rising ground on Tickenham Ridge. Both the F Route and the W Route run northeast up steeply rising ground before running over Cadbury Camp Lane (F Route) and Cuckoo Lane and Whitehouse Lane (W Route). The F Route changes direction between Chummock Wood and Mogg's Wood and runs northeast away from the W Route, whilst the W Route runs on a direct alignment over Mogg's Wood further east of Whitehouse Lane than the F Route.

6.5.244 East of Whitehouse Lane the F Route and the W Route run north down the slope which falls more steeply further north towards Caswell Hill Lane and the M5 motorway. The W Route runs down the slope to the east of the F Route.

6.5.245 The presence of existing overhead lines in the landscape reduces the susceptibility to change of this landscape from a new 400kV overhead line (as compared to a landscape without an overhead line/s) particularly as the F Route and the W Route would be removed as part of the Proposed Development. The W Route would be replaced with 132kV underground cables through Section E.

6.5.246 There are no national level landscape designations in Section E, and the Mendip Hills AONB is approximately 13km to the south. The prominent Tickenham Ridge landscape has local value.

6.5.247 The sensitivity of the southern part of the Tickenham Ridge landscape in Section E to the proposed 400kV and 132kV overhead line and underground cable works is medium, as the locally valued Tickenham Ridge landscape would have a medium susceptibility to change from the Proposed Development.

6.5.248 On the top and the northern slopes of Tickenham Ridge, landscape sensitivity to the proposed 400kV overhead line would be higher due to the absence of woodland backgrounding on the higher ground and the visual prominence of the ridge in the local landscape, particularly when viewed from the north. However landscape sensitivity would also be medium as recorded for the southern slopes of Tickenham Ridge in Section E as two 132kV overhead lines are present on Tickenham Ridge and the top and northern slopes of the locally valued Tickenham Ridge would generally be able to accommodate the Proposed Development without suffering detrimental effects on its character.

6.5.249 The sensitivity of the Tickenham Ridge landscape to the proposed 132kV underground cables would be low, due to the Tickenham Ridge landscape having a low susceptibility to this component of the proposed change. However these components of the Proposed Development are closely associated with the proposed 400kV overhead line, which increases the sensitivity of this landscape to the Proposed Development to medium.

6.5.250 The Tickenham Ridge landscape would have a low susceptibility to change and landscape sensitivity to the operation of proposed 132kV underground cables, due to the absence of link box pillars that would otherwise influence local landscape character in the medium-term.

6.5.251 **Table 6.22** summaries the sensitivity of the landscape in Section E to the Proposed Development with reference to the LLCA identified in section 6.4, which would potentially be affected by a component or components of the Proposed Development.

Table 6.22 Summary of Landscape Sensitivity in Section E

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Tickenham Ridge (E5) Failand Settled Limestone Plateau (G2) Abbots Leigh Sandstone Uplands (F1) Clapton Moor (A2)	Proposed 400kV overhead line; 132kV underground cables; and removal of the F and W Routes	Medium	Local	Medium
Tickenham Ridge (E5) Failand Settled Limestone Plateau (G2) Abbots Leigh Sandstone Uplands (F1) Clapton Moor (A2)	Proposed 132kV underground cables (operation)	Low	Local	Low

Section E: Tickenham Ridge: Construction Effects

6.5.252 In the short-term, temporary landscape effects would arise from proposed construction works including:

- ground level works and limited at-height works to dismantle the F Route and the W Route;
- Clevedon Road, Whitehouse Lane and Caswell Hill construction compounds;
- ground level and at-height works to construct the proposed 400kV overhead line using the T-pylon; and
- installation of proposed 132kV underground cables replacing the W Route.

6.5.253 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow and trees planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7.

6.5.254 Construction of the Proposed Development in Section E would result in direct and indirect adverse landscape effects on the following LLCAs:

- Tickenham Ridge (LLCA E5);
- Failand Settled Limestone Plateau (LLCA G2);
- Abbots Leigh Sandstone Uplands (LLCA F1); and
- Clapton Moor (LLCA A2).

6.5.255 During construction, effects on landscape character would be most noticeable immediately adjacent to construction compounds and the working area and on the rising slopes of Tickenham Ridge and would be visible from the landscapes to the north or south.

6.5.256 Localised direct effects on landscape character would arise from the removal of hedgerows and trees prior to construction, identified in the AIA at **Volume 5.21.3, Figures 21.2.36 - 21.2.39**. This is a landscape characterised by large blocks of woodland and farmland bordered by hedgerows and scattered hedgerow trees. Hedgerows are generally intact however minor removal would only exert a localised influence on the landscape character.

6.5.257 The Proposed Development generally avoids areas of woodland including Prior's Wood on the northern slopes of Tickenham Ridge; however some woodland clearance would be required as part of the Proposed Development, as identified in the AIA at **Volume 5.21.3, Figures 21.2.36 - 21.2.39**.

6.5.258 The landscape in the southern part of Tickenham Ridge (in Section E), comprises a localised valley enclosed by higher ground, including sinuous woodland blocks and belts to the north and south. The proposed 400kV overhead line would run to the north between the Ancient Woodlands of Chummock Wood and Mogg's Wood, and would result in the permanent loss of a notable area of ancient woodland at the most northwestern part of Mogg's Wood. This part of the woodland has however

previously been modified to accommodate the F Route and the W Route in this location. There would also be permanent tree loss where the proposed 400kV overhead line and 132kV underground cables swathe would cross Cadbury Camp Lane and White House Lane, resulting in a break in an otherwise continuous line of trees along Cadbury Camp Lane and connecting to Chummock Wood.

6.5.259 Overall, the permanent loss of trees to accommodate the Proposed Development would result in a minor alteration to key landscape features that extend across a greater extent of Tickenham Ridge and which have been partially modified in the past. The magnitude of this landscape effect would be low adverse, and the significance of the effect would be **minor adverse** overall.

6.5.260 The installation of temporary scaffolding over affected roads in Section E would give rise to minor alterations to landscape character. These structures would have a localised influence on landscape character although their influence would typically only extend to the landscape immediately surrounding the temporary scaffolds. The magnitude of this effect would be low adverse, and the significance of the effect would be **minor adverse**.

6.5.261 The greatest effects on landscape character would arise from the clustering of construction activity across the enclosed valley landscape in the southern part of Section E and more dispersed construction activity along the northern slopes of Tickenham Ridge (northern part of Section E). The landscape is described as being rural with a peaceful ambience where activity is typically associated with farm machinery used for arable farming practice. The construction activity would alter the pattern of the landscape through the underground cables swathe, working areas and construction access and be a notable change to the landscape. It would disrupt the peaceful ambience resulting in a localised moderate adverse magnitude of effect in the short-term. These effects would be temporary and due to the enclosed nature of the valley only experienced close to the construction area. Construction activity would be slightly more dispersed but inter-visible on the northern slopes of Tickenham Ridge in the northern part of Section E. This part of the landscape is already partially influenced by a bike track close to the M5 motorway which comprises areas of earth which contrast with the farmed landscape elsewhere. Construction operations along this part of Section E would give rise to a moderate adverse magnitude of effect.

6.5.262 Given the medium sensitivity of the landscape to the Proposed Development and the moderate adverse magnitude of effects predicted, the temporary effects of construction operations on landscape character would be of **moderate adverse** significance close to construction activity and on the landscape immediately adjacent, reducing to **minor adverse** elsewhere.

6.5.263 Construction activity on the northern and southern slopes of Tickenham Ridge in Section E would also have indirect adverse effects on the Moors landscape close to the ridge to the south in Section D and on Clapton Moor and Portishead Ridge to the north in Section F. From these landscapes construction operations would form notable movement and activity not typically associated with the farmed landscape on the high ground of Tickenham Ridge. The significance of the indirect effect would be no greater than **minor adverse**.

6.5.264 **Table 6.23** identifies the magnitude and significance of effects on the landscape in Section E during the construction of the Proposed Development.

Table 6.23 Summary of the Magnitude and Significance of Landscape Effects in Section E during Construction

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Construction
SECTION E			
Proposed 400kV overhead line; 132kV underground cables; and removal of the F and W Routes	Medium	Moderate adverse	**Moderate adverse**

Section E: Tickenham Ridge: Operational Effects (Opening Year to Year 15)

6.5.265 In the short and medium-term, landscape effects would arise from the Proposed Development in Section E including:

- removal of the F Route and the W Route;
- reinstated and reseeded 132kV underground cables swathe; and
- proposed 400kV overhead line using the T-pylon running across Tickenham Ridge.

6.5.266 The proposed 400kV overhead line would be introduced into Section E broadly along the alignment of the F Route and the W Route in the southern part of Section E. In the northern part of Section E, the proposed 400kV overhead line would run along a different alignment to the F Route and W Route.

6.5.267 It would have direct and indirect adverse effects on landscape character on Tickenham Ridge, which for the purpose of this assessment collectively refers to the Tickenham Ridges and Combes, the Failand Settled Limestone Plateau and the Abbots Leigh Sandstone Uplands LLCAs.

6.5.268 It would also have indirect adverse effects on the Moors landscape in particular Clapton Moor to the north; and indirect effects on Portishead Ridge to the northwest in Section F. It would form a perceptible feature on the high ground of Tickenham Ridge, which forms a backdrop to the adjacent lower lying landscape.

6.5.269 It would have **no effect** on the Mendip Hills AONB due to the distance of approximately 13km between Section E and the designated landscape in the south. In the southern part of this Section wooded rising ground would partly enclose the proposed 400kV overhead line where it would run on locally lower ground up Tickenham Ridge, reducing effects on the wider landscape. Chummock Wood, and Mogg's Wood (and Prior's Wood on the northern slopes of this ridge) would provide backgrounding, filtering and in places screening of the proposed 400kV overhead line reducing its influence on the landscape.

Photograph 6.39 (Viewpoint VPE1): Existing view from PRoW LA16/1 near Abbot's Wood between Stone-edge Batch and Cadbury Camp Lane, looking southwest across fields along the F Route and W Route on Tickenham Ridge

Verified Photomontage 6.19 (Viewpoint VPE1): Anticipated view of the 400kV overhead line supported by T-pylons during operation (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.82**)

Photograph 6.40 (Viewpoint VPE9): Existing view from PRoW LA16/1 north of Stone-edge Batch looking northeast up Tickenham Ridge along the F Route and W Route

Verified Photomontage 6.20 (Viewpoint VPE9): Anticipated view of the 400kV overhead line supported by T-pylons in the southern part of Section E, including the removal of F and W Routes (Image for illustration only, for accurate perspective see **Volume 5.18.2, Figure 18.2.83**)

6.5.270 In the northern part of Section E the proposed 400kV overhead line would be seen extending up, across and over Tickenham Ridge backgrounded in places by the ridge landform and woodland. At the top of the ridge the proposed 400kV overhead line would be seen against the sky to a greater extent than the F Route and the W Route.

Photograph 6.41 (Viewpoint VPE2): Existing view the Gordano Round long distance route on PRoW LA20/56 near Whitehouse Lane, looking northeast along the F Route and W Route on Tickenham Ridge and across Portbury Wharf in the distance. Views include the G Route and BW Route in the distance across Portbury Wharf with Portishead, Portbury Docks and Avonmouth Docks visible

Verified Photomontage 6.21 (Viewpoint VPE2): Anticipated view of the 400kV overhead line supported by T-pylons on Tickenham Ridge during operation with the F Route, W Route and G Route removed (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.84**)

Photograph 6.42 (Viewpoint VPF3): Existing view from National Cycle Route 26 on Sheepway on the bridge over the disused railway looking south along the W Route and the F Route across Clapton Moor and on Tickenham Ridge

Verified Photomontage 6.22 (Viewpoint VPF3): Anticipated view towards Tickenham Ridge of the Preferred Route (Option A) supported by T-pylons and removal of the F Route and the W Route (Image for illustration only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.95**)

6.5.271 The proposed 132kV underground cables swathe would generally run across farmland where hedgerows typically contain few mature trees. The reseeded cables swathe would become established in the short-term and in-situ replacement hedgerow would be established in the medium-term.

6.5.272 The introduction of the proposed 400kV overhead line using the T-pylon, which is taller and larger scale than existing 132kV pylons in this landscape, would result in a moderate adverse magnitude of effect on the southern part of Tickenham Ridge. On the top and northern slopes of Tickenham Ridge the proposed 400kV overhead line (crossing Tickenham Ridge and running obliquely down the generally open north facing hillside) would result in a greater adverse magnitude of effect, due to the greater visual prominence of this part of the ridge in the wider landscape, the absence of woodland backgrounding on the higher ground, and due to a greater extent of the proposed 400kV overhead line using the T-pylon seen against the sky, compared to the F Route and the W Route proposed to be removed. The magnitude of this effect on the top and northern slopes of Tickenham Ridge would also be moderate adverse.

6.5.273 The sensitivity of the Tickenham Ridge landscape to the operation of the Proposed Development is medium and the magnitude of effect would be moderate adverse. The proposed 400kV overhead line would have a **moderate adverse** significance of effect on Tickenham Ridge overall. The proposed replacement of the W Route with underground cables, and the removal of the F Route as part of the Proposed Development in Section D would help to offset adverse effects on this landscape.

6.5.274 **Table 6.24** identifies the magnitude and significance of effects on the landscape in Section E during the operation of the Proposed Development between the opening year and year 15.

Table 6.24 Summary of the Magnitude and Significance of Landscape Effects in Section E during Operation

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Operation (between the opening year and year 15)**
Proposed 400kV overhead line Removal of the F Route and part of the W Route; and	Medium	Moderate adverse	**Moderate adverse**
Proposed 132kV underground cables	Medium	Low adverse (until the establishment of the cables swathe and in-situ replacement hedgerow in the short-term) reducing	**Minor adverse** reducing to **neutral** in the short and medium-term

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Operation (between the opening year and year 15)
		to negligible	

Section E: Tickenham Ridge: Decommissioning Effects

6.5.275 The decommissioning of the proposed 400kV overhead line and 132kV underground cables in Section E, would result in very similar adverse effects on landscape character as those identified for the construction stage, of no greater than **moderate adverse** significance. However adverse effects would be experienced for a shorter duration. Following the reinstatement of the cables swathe landscape effects would be localised and of **minor adverse** significance reducing to **neutral** significance in the short and medium-term as the reseeded cables swathe and in-situ hedgerow replacement planting becomes established and matures.

6.5.276 The decommissioning of the proposed 400kV overhead line in Section E on Tickenham Ridge would result in a beneficial effect on landscape character of **moderate beneficial** significance.

Section F: Portishead: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.277 Portishead Ridge and Tickenham Ridge are strong landscape features which have a close association with Clapton Moor (and the Gordano Valley further west) on lower ground in Section F.

6.5.278 Clapton Moor is a relatively large-scale flat landscape between Portishead Ridge to the west and Tickenham Ridge to the south. Clapton Moor has a medium susceptibility to change from a new 400kV overhead line on both the preferred route (Option A) and on the alternative route (Option B). This landscape is less able to accommodate a new 400kV overhead line where the landscape is more open due to limited or no tree and hedgerow cover; although the landscape's susceptibility to change would still be medium.

6.5.279 There are several existing overhead lines present in Section F. These include the F Route and the W Route south of Portishead Substation; and the G Route and BW Route east of Portishead Substation. The W Route runs from Churchill Substation in Section D north to Portishead Substation in Section F; and the BW Route runs between Portishead Substation in Section F and Seabank Substation in the northeast of Section G. The F Route runs northwards to the west of Portishead Substation and changes direction and becomes the G Route immediately northwest of the substation site to run southeast towards Section G.

6.5.280 Existing 132kV overhead lines, the M5 motorway, Portishead Substation and dockland development influence the landscape in this area. This landscape has a medium susceptibility to change from a new overhead line, which is lower than would be the case in a landscape without such development, particularly as the F Route and W Route would be removed (the latter replaced by 132kV underground cables).

6.5.281 There are no national or local level landscape designations in Section F. Tickenham Ridge and distance prevents intervisibility between the landscape in Section F and the Mendip Hills AONB in the far south.

6.5.282 The sensitivity of the landscape in Section F to the proposed 400kV overhead line on both the preferred route (Option A) and the alternative route (Option B) is medium, given that the susceptibility to change of the landscape in Section F from the proposed 400kV overhead line is medium and the landscape has local value.

6.5.283 **Table 6.25** summaries the sensitivity of the landscape in Section F to the proposed 400kV overhead line and other components of the Proposed Development, with reference to the LLCA identified in section 6.4, which would potentially be affected by the Proposed Development.

Table 6.25 Summary of Landscape Sensitivity in Section F

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Clapton Moor (A2) immediately north and south of the M5 Abbots Leigh Sandstone Uplands (F1) south of Caswell Lane and across Tickenham Ridge Portbury Settled Coastal Edge (C2) within the eastern part of Section F	Proposed 400kV overhead line (Option A)	Medium	Local	Medium
Clapton Moor (A2) north of Caswell Lane and including Portbury Wharf Nature Reserve Abbots Leigh Sandstone Uplands (F1) south of Caswell Lane Portbury Settled Coastal Edge (C2) within the eastern part of Section F	Proposed 400kV overhead line and removal of the G Route (Option B)	Medium	Local	Medium
Abbots Leigh Sandstone Uplands (F1) south and north of Caswell Lane Clapton Moor (A2) north of Caswell Lane	Removal of the F Route across Clapton Moor	Low	Local	Low

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Abbots Leigh Sandstone Uplands (F1) south and north of Caswell Lane Clapton Moor (A2) north of Caswell Lane	Removal of the W Route; installation of proposed 132kV underground cables across Clapton Moor and Portbury Wharf Nature Reserve; and removal of the F Route across the Nature Reserve	Medium	Local	Medium
Clapton Moor (A2) including Portbury Wharf Nature Reserve Portbury Settled Coastal Edge (C2)	Removal of the G Route (Option A)	Low	Local	Low
Clapton Moor (A2) including Portbury Wharf Nature Reserve	Removal of the western section of the BW Route (Option B) and installation of 132kV underground cables	Medium	Local	Medium
Clapton Moor (A2) including Portbury Wharf Nature Reserve	Modifications at Portishead Substation	Low	Local	Low
Abbots Leigh Sandstone Uplands (F1) south and north of Caswell Lane Clapton Moor (A2) north of Caswell Lane including Portbury Wharf Nature Reserve	Decommissioning of proposed 132kV underground cables	Low	Local	Low

Section F: Portishead: Construction Effects

6.5.284 In Section F two alignments for the proposed 400kV overhead line have been identified, and are referred to as preferred route (Option A) and the alternative route (Option B).

6.5.285 A new 400kV overhead line on the preferred route (Option A) would run northeast along the northern side of the M5 motorway between Caswell Lane and industry at The Royal Portbury Dock area, passing over the southern edge of the small settlement of Sheepway. The character of the preferred route (Option A) is influenced by the M5 motorway and the presence of industry in the northeast.

6.5.286 A 400kV overhead line on the alternative route (Option B) would introduce an overhead line extending north from the M5 motorway and Caswell Lane towards Portishead Substation, east of Portishead. It would pass over fields, roads and cycleways (Sheepway, the A369 The Portbury Hundred and the Avon Cycleway). It would also oversail Portbury Wharf Nature Reserve to the east of the W Route, before turning southeast, prior to reaching Portishead substation, and would then oversail fields to the east of the Nature Reserve.

6.5.287 Landscape effects during construction are discussed below and where relevant are described in relation to; the preferred route (Option A); the alternative route (Option B); both route options (Option A and B).

6.5.288 In the short-term, temporary landscape effects would arise from proposed construction works comprising:

- ground level works and limited at-height works to dismantle the F Route, W Route and the G Route;
- installation of 132kV underground cables (including open cut and HDD) replacing the W Route and associated Sheepway construction compound;
- ground level and at-height works to construct the proposed 400kV overhead line using the T-pylon on the preferred route (Option A) and on the alternative route (Option B); and
- modifications at Portishead Substation.

6.5.289 These works would be undertaken for each of the overhead line route options. Additional construction work would be required in relation to alternative route (Option B) including the removal, for electrical safety reasons, of the first two spans of the 132kV overhead line 'BW Route' as it leaves Portishead substation; at this point the proposed 400kV overhead line would pass over it. This part of the BW route would be replaced by 132kV underground cables along a similar alignment. A construction compound and a temporary overhead line would be introduced in close proximity to these works.

6.5.290 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and replacement hedgerow (and in places trees) planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7.

6.5.291 Construction work relating to the above Proposed Development in Section F including both 400kV overhead line route options, would result in direct and indirect adverse effects on part of the following LLCAs in Section F:

- Abbots Leigh Sandstone Uplands (LLCA F1) south of Caswell Lane;
- Clapton Moor (LLCA A2) across the majority of Section F affected by the Proposed Development; and
- Portbury Settled Coastal Edge (LLCA C2) within the eastern part of Section F.

6.5.292 Construction of the Proposed Development in Section F would also result in some indirect adverse landscape effects on Clapton Moor (LLCA A2) immediately south of the M5 in Section E, particularly in relation to the preferred route (Option A), and on Abbots Leigh Sandstone Uplands (LLCA F1) across higher ground on Tickenham Ridge (Section E).

6.5.293 Construction of the Proposed Development in Section F would introduce temporary construction activity and disruption into the landscape setting of these character areas. The greatest indirect adverse landscape effects of moderate to low adverse magnitude and **minor adverse** significance would be experienced by Clapton Moor (LLCA A2) in relation to the preferred route (Option A) running along the M5 motorway.

6.5.294 Indirect adverse effects are also anticipated on parts of Portishead Ridge (LLCA E4) to the west, although these will be of negligible magnitude and **neutral** significance due to limited visibility of the Proposed Development across Clapton Moor and Portbury Wharf Nature Reserve due to distance and intervening development at Portishead. Indirect effects on Portishead Ridge are also recorded above in relation to Section E.

6.5.295 Construction effects would arise, along both proposed 400kV overhead line route options, from the presence of construction activity within working areas and along existing and proposed access tracks and including at-height working to construct the T-pylons. The removal of existing 132kV overhead lines would involve dismantling on the ground with at-height working. Construction operations would disrupt the character of the low-lying rural landscape of Section F; however construction effects would be temporary and would affect a small part of this landscape at any one time.

6.5.296 The flat nature of Clapton Moor and the Gordano Valley floor combined with frequent mature trees and hedgerow would mean that these effects generally would be localised.

<u>Preferred Route (Option A)</u>

6.5.297 Construction works to assemble the proposed 400kV overhead line on the preferred route (Option A), would have a **moderate adverse** magnitude and significance of effect on Clapton Moor. Temporary adverse effects on landscape character during construction works would be contained along the M5 corridor.

<u>Alternative Route (Option B)</u>

6.5.298 Construction works to install the proposed 400kV overhead line on the alternative route (Option B) generally would have a **moderate adverse** magnitude and significance of effect on landscape character with construction works apparent on the valley floor. There would be a moderate adverse magnitude of effect of **moderate adverse** significance of effects on landscape character at Portbury Wharf Nature Reserve where there would be removal of hedgerows and mature trees as identified in the AIA at **Volume 5.21.3, Figures 21.3**.

6.5.299 Where trees would be removed to install the proposed 400kV overhead line and for scaffolding there would be localised effects on landscape character. Scaffold structures would have a localised effect of low adverse magnitude and **minor adverse** significance.

Removal of 132kV Overhead Lines, Installation of 132kV Underground Cables and Modifications at Portishead Substation

6.5.300 The generally open nature of Clapton Moor (LLCA A2) means that the installation of the 132kV underground cables into cable trenches, proposed working areas and Sheepway compound would be noticeable particularly across open farmland along the W Route north of Caswell Lane and across Portbury Wharf Nature Reserve towards Portishead Substation.

6.5.301 The installation of the proposed 132kV underground cables would affect hedgerow and mature trees along field boundaries, ditches and roads, and over roads, along the route of proposed underground cables. Some trees and hedgerow would need to be removed along this route to enable the construction. Where trees require removal the change to landscape character would be perceptible; however effects would be localised.

6.5.302 Construction effects arising from the proposed 132kV underground cables and removal of the W Route would be of **moderate adverse** significance on landscape character and would be experienced in fields adjacent to the works. Beyond this effects would reduce to **minor adverse** or **neutral** significance. The construction activity would also have a **moderate adverse** significance of effect on the landscape character of the setting of Tickenham Ridge along the sections of higher ground, which currently have extensive and panoramic views over consistent pastoral farmland between the M5 and Portishead.

6.5.303 Construction works proposed at Portishead Substation associated with the removal of the W Route and the installation of proposed 132kV underground cables would result in a localised low adverse magnitude of effect and **minor adverse** significance due to the presence of existing infrastructure.

6.5.304 Section F generally comprises a low-lying, open and predominantly pastoral vale landscape, with sparse woodland, enclosed within the steep slopes of the limestone ridges to the south, northwest and west. This character is diluted slightly close to the small scattered settlements and close to Portishead and Portbury Wharf. Overall, the magnitude of effect on landscape character in Section F arising from the construction operations, relevant to both the preferred route (Option A) and the alternative route (Option B) would be moderate adverse local to the works activity reducing to low adverse elsewhere.

6.5.305 Given the medium sensitivity of this landscape and the overall moderate to low adverse magnitude of effects, there would be effects from construction operations

on landscape character of **moderate adverse** significance close to construction activity reducing to **minor adverse** elsewhere.

6.5.306 **Table 6.26** identifies the magnitude and significance of effects on the landscape in Section F during the construction of the Proposed Development.

Table 6.26 Summary of the Magnitude and Significance of Landscape Effects in Section F during Construction

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Construction**
SECTION F: Preferred Route (Option A)			
Proposed 400kV overhead line on the preferred route	Medium	Moderate adverse	**Moderate adverse**
Proposed 132kV underground cables; and removal of the W Route across Clapton Moor	Medium	Moderate adverse	**Moderate adverse**
Removal of the W Route; installation of proposed 132kV underground cables across Clapton Moor and Portbury Wharf Nature Reserve; and removal of the F Route across the Nature Reserve	Medium	Moderate adverse	**Moderate adverse**
Removal of the G Route	Low	Low adverse	**Minor adverse**
SECTION F: Alternative Route (Option B)			

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Construction
Proposed 400kV overhead line; proposed 132kV underground cables; removal of the W Route across Clapton Moor and Portbury Wharf Nature Reserve; removal of the F Route, G Route; and part of the BW Route at Portbury Wharf Nature	Medium	Moderate adverse (with a low adverse effect across the underground cables swathe)	**Moderate adverse overall** (with a **neutral** effect across the underground cables swathe)
Removal of the BW Route and 132kV underground cables	Low	Low adverse	**Neutral**
SECTION F: Option A and Option B			
Removal of the F Route across Clapton Moor	Low	Low adverse	**Minor adverse**
Proposed modifications at Portishead Substation	Low	Low adverse	**Minor adverse**

Section F: Portishead: Operational Effects (Opening Year to Year 15)

6.5.307 A new 400kV overhead line on preferred route (Option A) would run northeast to the northern side and roughly parallel to the M5 motorway and the A369 The Portbury Hundred.

Photograph 6.43 (Viewpoint VPE10): Existing view from the narrow bridge over the M5 motorway (PRoW LA15/2 and National Cycle Route 334) north of Portbury looking southwest towards the F Route on Tickenham Ridge

Verified Photomontage 6.23 (Viewpoint VPE10): Anticipated view of the Preferred route (Option A) supported by T-pylons and removal of the F Route and W Route, looking west and southwest along the M5 from the narrow bridge at Portbury (Image for illustration only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.87**)

Photograph 6.44 (Viewpoint VPE8): Existing view from PRoW LA15/2 and National Cycle Route 334 on the narrow bridge over the M5 motorway north of Portbury, looking northeast along the motorway towards Portbury Docks with the tall G Route pylons visible crossing the River Avon

Verified Photomontage 6.24 (Viewpoint VPE8): Anticipated view of the Preferred route (Option A), supported by T-pylons and removal of the F Route and W Route, looking northeast along the M5 from the narrow bridge at Portbury (Image for illustration only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.89**)

6.5.308 A new 400kV overhead line supported by T-pylons on the alternative route (Option B) would run north of the M5 on a direct alignment east of the F Route and the W Route and would change direction across Portbury Wharf Nature Reserve away from Portishead Substation. The alternative route (Option B) would then run southeast parallel to the route of the G Route (also proposed to be removed) further east and into the adjacent Section G.

Photograph 6.45 (Viewpoint VPF3): Existing view from National Cycle Route 26 on Sheepway on the bridge over the disused railway looking south along the W Route and the F Route across Clapton Moor and on Tickenham Ridge

Verified Photomontage 6.25 (Viewpoint VPF3): Anticipated view from Sheepway, looking south towards Tickenham Ridge along the alternative route (Option B), supported by T-pylons and removal of the F Route and W Route (Image for illustration, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.95**)

Photograph 6.46 (Viewpoint VPF5): Existing view from a footpath on the mound between Portishead Substation and housing at Portbury Wharf looking east to south across the southern part of Portishead Substation and across Portbury Wharf Nature Reserve. Views south include the F Route and the W Route across the Nature Reserve and on Tickenham Ridge, and views east include the BW Route and G Route across the Nature Reserve

Verified Photomontage 6.26 (Viewpoint VPF5): Anticipated view from adjacent to Portishead Substation, looking across Portbury Wharf Nature Reserve towards the alternative route (Option B), supported by T-pylons and removal of the F Route and W Route (Image for illustration only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.97**)

6.5.309 The Proposed Development in Section F would result in some direct and indirect adverse effects on part of the following LLCAs in Section F:

- Abbots Leigh Sandstone Uplands (LLCA F1) south of Caswell Lane;
- Clapton Moor (LLCA A2) across the majority of Section F affected by the Proposed Development; and
- Portbury Settled Coastal Edge (LLCA C2) within the eastern part of Section F.

6.5.310 The Proposed Development in Section F would also result in some indirect adverse landscape effects on part of Clapton Moor (LLCA A2) immediately south of the M5 motorway in Section E, particularly in relation to the proposed 400kV overhead line

on preferred route (Option A), and on Abbots Leigh Sandstone Uplands (LLCA F1) across higher ground on Tickenham Ridge (Section E). The Proposed Development in Section F would introduce a new overhead line into the landscape setting of these character areas. The greatest indirect adverse landscape effect of moderate to low adverse magnitude and **minor adverse** significance would be experienced by Clapton Moor (LLCA A2) in relation to the preferred route (Option A) running along the northern side of the M5 motorway on lower ground. The character of Clapton Moor in this location is influenced by the M5 motorway, existing 132kV overhead lines including tall river crossing pylons to the northeast, and dockland cranes. Development at The Royal Portbury Dock, at Avonmouth and at Portishead is perceptible in the landscape.

Photograph 6.47 (Viewpoint VPE4): Existing view from PRoW LA15/18 between Portbury and Prior's Wood on Tickenham Ridge, looking northwest towards the M5 motorway and Portishead with the F Route, W Route, G Route and BW Route just visible in the distance above trees across Portbury Wharf

Verified Photomontage 6.27 (Viewpoint VPE4): Anticipated view of the 400kV overhead line on the preferred route (Option A) supported by T-pylons adjacent to the M5 motorway during operation, with the F Route, W Route and the G Route removed (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.86**)

6.5.311 Indirect adverse effects are also anticipated on Portishead Ridge (LLCA E4) to the west, although these typically will be of **neutral** significance due to limited visibility of the Proposed Development on Clapton Moor (in Section F) due to distance and intervening development at Portishead. Indirect effects on Portishead Ridge are also recorded above in relation to Section E.

6.5.312 The proposed 400kV overhead line in Section F would introduce a linear development comprising conductors suspended from arms on supports (the T-pylon) at regular distances into a landscape that includes existing overhead lines, the F Route and the W Route. The alternative route (Option B) is closer to the F Route and the W Route than the preferred route (Option A). There would be adverse effects from the greater size and scale of the 400kV pylons compared to the existing 132kV pylons. The presence of the F Route and W Route in this Section reduces the landscape's susceptibility to change from the proposed 400kV overhead line particularly on the alternative route (Option B). The landscape in Section F is also influenced by industrial activity further east at The Royal Portbury Dock and at Avonmouth and by the M5 motorway in the vicinity of the preferred route (Option A).

6.5.313 A new 400kV overhead line on either route would have an adverse effect on trees. This would occur particularly where each route would pass over the A369 The Portbury Hundred and also at hedgerows along ditches, field boundaries and roads in Section F where these would be lost to allow construction access and in some places would remain absent or cut low to achieve the electricity safety clearances required. Tree and hedgerow losses are identified in the AIA at **Volume 5.21.3**, **Figures 21.2.39** to **21.2.41b** for Option A and at **Volume 5.21.3 Figures 21.3.1** to **21.3.3** for Option B.

6.5.314 Mature hedgerows and trees across Clapton Moor, including along field boundaries and along the A369 The Portbury Hundred, and the dismantled railway would provide some filtering and partial screening which would reduce the influence of a new 400kV overhead line (on either route option) in the landscape in Section F.

Preferred Route (Option A)

6.5.315 A new 400kV overhead line on the preferred route (Option A) in Section F would have a direct adverse effect on part of Clapton Moor (LLCA A2) in the vicinity of the M5 motorway, and on the southern part of the Portbury Settled Coastal Edge (LLCA C2). Landscape effects would be contained along the M5 corridor and on the southern edge of The Royal Portbury Docks. The proposed 400kV overhead line would result in indirect adverse effects on Clapton Moor and Tickenham Ridge to the south of the M5 motorway (in Section E) and on Portishead Ridge in the west.

6.5.316 Portishead Ridge and Tickenham Ridge would provide backgrounding to the proposed 400kV overhead line using T-pylons, on the preferred route (Option A) across the southern part of Clapton Moor.

Alternative Route (Option B)

6.5.317 A new 400kV overhead line on the alternative route (Option B) in Section F would result in a moderate adverse magnitude of effect on Clapton Moor (LLCA A2) where it would run north across Clapton Moor and across Portbury Wharf Nature Reserve. Alternative route (Option B) would also have a direct adverse effect on the Portbury Settled Coastal Edge (LLCA C2) running parallel to the BW route and indirect adverse effects on Tickenham Ridge in the south and on Portishead Ridge in the west.

6.5.318 Portishead Ridge and Tickenham Ridge would provide backgrounding to the proposed 400kV overhead line crossing the flat low-lying Clapton Moor landscape,

although to varying extents. The proposed 400kV overhead line would protrude above the backdrop of these hills in places, particularly where the hills are lower or more distant. These hills provide greater backgrounding to the smaller 132kV pylons on the W and F Routes.

6.5.319 In Section F the F, W, and G Routes would be removed as part of the proposed 400kV overhead line on the preferred route (Option A) and on the alternative route (Option B), and the W Route would be replaced with underground cables. The removal of the F Route, W Route and G Route would result in a beneficial effect on the landscape in the vicinity of these 132kV overhead lines, and would avoid adverse in combination effects that would otherwise occur if the alternative route (Option B) was built across Clapton Moor. The western extent of the BW Route would be replaced with 132kV underground cables where the alternative route (Option B) crosses this existing line; the remainder of this 132kV overhead line however would remain in place in Section F.

6.5.320 The landscape in Section F is has local value; is in good condition and has a medium sensitivity to the proposed 400kV overhead line on either the preferred route (Option A) or the alternative route (Option B). Overall a new 400kV overhead line, on both route options, would have an effect of **moderate adverse** significance on landscape character.

6.5.321 As part of the preferred route (Option A), the removal of F Route and the W Route would result in a beneficial effect on the landscape in the vicinity of these 132kV overhead lines. This beneficial effect would be of **moderate beneficial** magnitude and significance. The removal of the G Route running northeast from Portishead Substation would result in a localised beneficial effect of **minor beneficial** significance. The BW Route would remain in situ.

6.5.322 As part of both the preferred route (Option A), and the alternative route (Option B), the removal of the F Route where it runs across Clapton Moor on a more distant route to the west of the W Route would result in a low beneficial magnitude and **minor beneficial** significance of effect on landscape character.

6.5.323 **Table 6.27** identifies the magnitude and significance of effects on the landscape in Section F during the operation of the Proposed Development between the opening year and year 15.

Table 6.27 Summary of the Magnitude and Significance of Landscape Effects in Section F during Operation

Component of the Proposed Development	**Sensitivity of the Landscape to Operation of the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of the Effect during Operation (In the short and medium-term)**
SECTION F: Preferred Route (Option A)			
Proposed 400kV overhead line on the preferred route	Medium	Moderate adverse	**Moderate adverse**

Component of the Proposed Development	Sensitivity of the Landscape to Operation of the Proposed Development	Magnitude of Effect on the Landscape	Significance of the Effect during Operation (In the short and medium-term)
Proposed 132kV underground cables; and removal of the W Route across Clapton Moor	Low	Low beneficial	**Minor beneficial** (with a **minor adverse** effect across the underground cables swathe reducing to **neutral** in the short and medium-term)
Removal of the W Route; installation of proposed 132kV underground cables across Clapton Moor and Portbury Wharf Nature Reserve; and removal of the F Route across the Nature Reserve	Medium	Moderate beneficial	**Moderate beneficial** (with a **minor adverse** effect across the underground cables swathe reducing to **neutral** in the short and medium-term)
Removal of the G Route	Low	Low beneficial	**Minor beneficial**
SECTION F: Alternative Route (Option B)			
Proposed 400kV overhead line; proposed 132kV underground cables; removal of the W Route across Clapton Moor and Portbury Wharf Nature Reserve; removal of the F Route, G Route; and part of the BW Route at Portbury Wharf Nature	Medium	Moderate adverse (with a low adverse effect across the underground cables swathe)	**Moderate adverse** (with a **minor adverse** effect across the underground cables swathe reducing to **neutral** in the short and medium-term)
Removal of part of the BW Route; proposed 132kV underground cables	Low	Low beneficial	**Minor beneficial**
SECTION F: Option A and Option B			
Removal of the F Route across Clapton Moor	Low	Low beneficial	**Minor beneficial**

Component of the Proposed Development	Sensitivity of the Landscape to Operation of the Proposed Development	Magnitude of Effect on the Landscape	Significance of the Effect during Operation (In the short and medium-term)
Proposed modifications at Portishead Substation	Low	Low beneficial to negligible	**Minor beneficial to neutral**

Section F: Portishead: Decommissioning Effects

6.5.324 The decommissioning of the proposed 400kV overhead line on both the preferred route (Option A) and the alternative route (Option B) and the decommissioning of 132kV underground cables would result in very similar potential adverse effects on landscape character (ranging from **moderate adverse** to **minor adverse** significance) as those identified for the construction stage; however these effects would be experienced for a shorter duration.

6.5.325 Following the decommissioning of the proposed 400kV overhead line on the preferred route (Option A) in Section F would result in a beneficial effect on landscape character of **moderate beneficial** significance. Beneficial effects on landscape character across Portbury Wharf and across farmland on Clapton Moor would result from the decommissioning of the proposed 400kV overhead line on the alternative route (Option B). The significance of these landscape effects would also be of **moderate beneficial** significance.

Section G: Avonmouth: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.326 The Royal Portbury Dock and Avonmouth in Section G are important industrial areas adjacent to the River Severn and the River Avon, and close to motorways and the City of Bristol. The heritage of this area and the wider landscape of the City of Bristol and the Severn Estuary are valued nationally. However the landscape in the area through which the proposed 400kV overhead line would be built has limited local landscape value due to the strong urban and industrial character of this landscape.

6.5.327 The landscape in Section G is heavily influenced by overhead lines, industrial and port development. Overhead lines present in Section G include the G Route and the BW Route, which run roughly parallel across The Royal Portbury Dock and across Avonmouth towards Seabank Substation. The G Route and BW Route pass over the River Avon on tall steel lattice pylons. The G Route river crossing pylons are taller and have greater influence on the surrounding landscape than the steel lattice pylons elsewhere.

6.5.328 In the north of this Section the 2VL Route runs east and northeast from Seabank Substation and the DA Route runs from Seabank Substation to Almondsbury Substation in the east.

6.5.329 Avonmouth comprises a large scale flat landscape dominated by industry with higher ground to the south and east. Existing overhead lines in the area supported by steel lattice pylons, together with existing industrial development, Avonmouth Substation and Seabank Power Station (and the adjacent Seabank Substation), mean that the susceptibility to change from the Proposed Development is lower for this landscape as compared to one without such development. Overall, the susceptibility to change of the landscape in Section G would be low in relation to the Proposed Development, which would include a new 400kV overhead line on the preferred route (Option A) or on the alternative route (Option B); removal of 132kV overhead lines; and 132kV underground cables.

6.5.330 The susceptibility of the landscape setting to the settlement of Avonmouth from the proposed 400kV overhead line, where landscape character is not influenced by the G Route and the BW Route, is low due to the presence of large scale development and industry at Avonmouth docks and to the north of this residential area, and due to screening by intervening built form. The area surrounding the settlement of Avonmouth is able to accommodate the Proposed Development without suffering detrimental effects on its character due to existing development and industry in the area.

6.5.331 In the northeastern extent of this Section across Hallen Marsh landscape character has aspects of more rural and remote character across farmland adjacent to industry, compared to elsewhere in Section G. However the susceptibility to change from a new 400kV overhead line in this area would also be low due to the presence of the motorway, existing overhead lines and industry in the area.

6.5.332 There are no national or local level landscape designations in Section G.

6.5.333 The landscape in Section G to the south and north of the River Avon has low sensitivity to the proposed 400kV overhead line and proposed 132kV underground cables as the susceptibility to change of the landscape in Section G from the

Proposed Development is low and the landscape has local value; albeit limited. The sensitivity of the landscape increases across Hallen Marsh in a localised part of Avonmouth (to the northeast of Section G) as existing development influences decrease; however sensitivity to the proposed overhead line would also be low in this area.

6.5.334 **Table 6.28** summarises the sensitivity of the landscape in Section G to the Proposed Development with reference to the LLCA identified in section 6.4, which would potentially be affected by a component or components of the Proposed Development.

Table 6.28 Summary of Landscape Sensitivity in Section G

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Portbury Settled Coastal Edge (C2) Avon Rolling Valley Farmland (J6) Clapton Moor (A2) Abbots Leigh Sandstone Uplands (F1)	Proposed 400kV overhead line (Option A) including removal of the G Route and part of the BW Route, and 132kV underground cables	Low	Local	Low
Portbury Settled Coastal Edge (C2) Avon Rolling Valley Farmland (J6) Clapton Moor (A2) Abbots Leigh Sandstone Uplands (F1)	Proposed 400kV overhead line (Option B) and removal of the G Route	Low	Local	Low
In the northern part of Section G: Pilning Levels (20); and Severn Ridges (18).	Proposed 400kV overhead line crossing the River Avon, north of the river, including removal of the G Route and 132kV underground	Low	Local	Low

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
	cables; Removal of part of the 132kV overhead lines into Seabank Substation replaced with 132kV underground cables			

Section G: Avonmouth: Construction Effects

6.5.335 In Section G two alignments for the proposed 400kV overhead line have been identified to the south of the River Avon, and are referred to below as the preferred route (Option A) and the alternative route (Option B).

South of the River Avon

6.5.336 Construction of a new 400kV overhead line on the preferred route (Option A) or on the alternative route (Option B) would result in direct and indirect adverse effects on the Portbury Settled Coastal Edge (LLCA C2). Construction activity required for preferred route (Option A) would be contained to the south of the Royal Portbury Dock partially running alongside The Royal Portbury Hundred and the M5 motorway. Construction activity relating to alternative route (Option B) would extend across The Royal Portbury Dock on a similar alignment to the G Route to be removed.

6.5.337 Construction activity associated with the preferred route (Option A) or the alternative route (Option B) in the southern part of Section G would also result in indirect adverse landscape effects on the Avon Rolling Valley Farmland (LLCA J6) in Section G, and on Clapton Moor (LLCA A2) and the Abbots Leigh Sandstone Uplands (LLCA F1) in Section E, south of the M5 motorway. Construction activity for the new 400kV overhead line on preferred route (Option A) would be closer to these LLCAs. However screening by mature trees along The Royal Portbury Hundred and in the southern extent of the Portbury Settled Coastal Edge (LLCA C2) and traffic along the M5 motorway would reduce the influence of construction activity in the surrounding area.

6.5.338 Construction works south of the River Avon in Section G would also relate to the removal of the G Route, which would be undertaken as part of preferred route (Option A) or as part of alternative route (Option B). Two spans of the BW Route would also be removed and replaced with 132kV underground cables where the new 400kV overhead line on preferred route (Option A) would cross the G Route near to the M5 motorway.

6.5.339 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow (and in places trees) planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7 of this chapter.

North of the River Avon

6.5.340 North of the River Avon, construction of the Proposed Development (including the proposed 400kV overhead line, removal of a section of the G Route and installation of 132kV underground cables on the G Route) would result in direct and indirect adverse effects on Avonmouth and on the Pilning Levels (LLCA 20) within the northern and northeastern part of Section G. Construction works would also result in indirect adverse landscape effects on higher ground further east in the Severn Ridges (LLCA 18), including Spaniorum Hill.

6.5.341 Effects of construction works would be most notable on the landscape immediately adjacent to the working areas and from higher ground at Shirehampton and Lawrence Weston to the east, Spaniorum Hill to the northeast and Tickenham Ridge to southeast in Section E, where there are expansive views across the urban and industrial landscape of Section G.

6.5.342 Construction operations typically would not be a noticeable disruption to the generally industrial and dock character including large warehouses, cranes and wind turbines. The exception would be north of the River Avon, through the residential settlement of Avonmouth and across Hallen Marsh in the northeast; here construction operations would introduce increased levels of activity that would generally be uncharacteristic of the area. Construction operations through residential areas of Avonmouth would involve removal of the G Route where it passes over and adjacent to properties and a school. Across Hallen Marsh activity would temporarily disrupt the more rural and remote character of the landscape, although this character is already impinged upon by the nearby industrial developments and M49 motorway.

6.5.343 Access to working areas in Section G typically would be by existing routes and working areas generally would be existing areas of hardstanding in the industrial areas. Whilst not uncharacteristic in the industrial landscape, works would see greater levels of activity than is generally the case. In some locations access tracks would be introduced across fields or brownfield sites adjacent to the M5 and M49 motorways and industrial estates introducing new temporary elements in this part of the landscape. This would result in effects of low adverse magnitude of effect due to the nature of adjacent land use.

6.5.344 In the northeast of Section G across Hallen Marsh temporary access roads would result in localised disruption to the consistent field pattern of the landscape. However the flat fields with mature tree and hedge boundaries would partially screen operations containing these localised effects.

6.5.345 Temporary scaffolding over roads, structures, buildings and industrial warehouses would be particularly evident where the G Route would be removed through the residential part of Avonmouth and where the proposed 400kV overhead line would be constructed near Avonmouth passing through Avonmouth Docks and industrial estates on Avonmouth Way. Temporary scaffolding would be required over a number of roads, properties, and warehouses. In places temporary scaffolding

would also require the removal or thinning of roadside hedgerows and trees, in particular across Hallen Marsh, at Ballast Lane and adjacent to the M49 motorway. In urban and industrial areas temporary scaffolding over roads would have a low magnitude of effect due to the industrial character of the area, surrounding built form and highway features typically present. Temporary scaffold structures would have a localised adverse effect on landscape character although this would typically only extend to the landscape immediately surrounding the temporary scaffold.

6.5.346 Adverse effects on landscape character would result from the removal of hedgerows and trees prior to construction as identified in the AIA at **Volume 5.21.1, section 7.13** and illustrated at **Volume 5.21.3, Figures 21.2.42 - 21.2.48 and 21.3.3**. Some tree loss, (for example where the proposed 400kV overhead line deviates from the G Route and runs northwest to the south of Avonmouth), would be required to accommodate the Proposed Development in Section G, (including the preferred route (Option A) or the alternative route (Option B)). However these effects would be localised and the change typically would be of low adverse magnitude and **minor adverse** significance due to the existing urban and industrial character of the landscape.

6.5.347 The G Route would be removed between Avonmouth Substation and Moorhouse Lane where the proposed 400kV overhead line would cross this route. The G Route passes over fields between the M49 motorway to the east and industry to the west and would be replaced with 132kV underground cables. Installing 132kV underground cables including HDD would introduce localised adverse effects on the landscape between Avonmouth Substation and Moorhouse Farm. The route predominantly would be across fields with boundary hedgerows and trees and would pass under the M49 motorway where it would continue northeast parallel to the motorway and the BW Route. Some tree loss would be required along the route to enable the installation of the 132kV underground cables. This would give rise to localised adverse effects on landscape character, although this occasional loss would be barely perceptible due to the unmanaged nature of hedgerows and scattered trees. Temporary effects of the 132kV underground cables installation from working areas, spoil mounds and access tracks would be of **minor adverse** significance along the route and in fields adjacent to the works. Beyond this effects would reduce to **neutral** significance.

6.5.348 The Proposed Development in Section G also includes the extension of Seabank Substation adjacent to Seabank Power Station. The construction of the proposed 400kV overhead line would connect to Seabank Substation and two spans of each of the G Route and BW Route and one span of the DA Route would be removed and replaced with 132kV underground cables to allow the proposed 400kV overhead line to cross these routes and connect to the substation. The construction process would introduce localised landscape effects of **minor adverse** significance due to the nature of construction activity and undergrounding of existing electrical infrastructure. This generally would be apparent in the landscape close to the works due to screening by the existing power station and surrounding industry.

6.5.349 The sensitivity of the landscape to accommodate construction operations for the proposed 400kV overhead line is generally low with greater sensitivity close to

residential properties and across farmland to the northeast of Section G across Hallen Marsh.

6.5.350 In Section G, the magnitude of effect on landscape character arising from the construction operations typically would be low adverse. Low to moderate adverse effects would be expected where the landscape is more rural and open across Hallen Marsh in the northeast. Elsewhere activities would give rise to low adverse magnitude of effects due to the industrial nature of the landscape which would reduce to negligible a short distance from the construction operations.

6.5.351 The landscape across Avonmouth in Section G is of low sensitivity and the overall magnitude of effect would be low adverse. The significance of effects of construction operations generally would be **minor adverse** close to construction activity but reducing to **neutral** significance elsewhere. Near the settlement of Avonmouth where the G Route would be removed a **minor adverse** significance of effect would be experienced during construction. A **minor adverse** significance of effect is predicted where the proposed 400kV overhead line would deviate from the G Route to avoid the settlement of Avonmouth.

6.5.352 **Table 6.29** identifies the magnitude and significance of effects on the landscape in Section G during the construction of the Proposed Development.

Table 6.29 Summary of the Magnitude and Significance of Landscape Effects in Section G during Construction

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Construction**
Connection South of the River Avon			
Proposed 400kV overhead line on preferred route (Option A), including removal of the G Route and part of the BW Route, and 132kV underground cables	Low	Low adverse	**Minor adverse**
Proposed 400kV overhead line on alternative route (Option B) and removal of the G Route	Low	Low adverse	**Minor adverse**
River Crossing and Connection North of the River Avon			
Removal of the G Route passing over Avonmouth	Low	Low adverse	**Minor adverse**

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Construction
Proposed 400kV overhead line crossing the River Avon, deviating from the G Route around the settlement of Avonmouth and running east and northeast of Avonmouth Substation	Low	Low	**Minor adverse**
Proposed 400kV overhead line running across Hallen Marsh	Low	Low to moderate adverse	**Minor to moderate adverse**
Proposed 400kV overhead line running northwest to Seabank Substation, removal of part of the 132kV line entries into Seabank Substation; and 132kV underground cables	Low	Low adverse	**Minor adverse**
Proposed extension to Seabank Substation	Low	Low adverse	**Minor adverse**

Section G: Avonmouth: Operational Effects (Opening Year to Year 15)

6.5.353 South of the River Avon, two alignments for the proposed 400kV overhead line have been identified across the Portbury Settled Coastal Edge (LLCA C2), and are referred to below as the preferred route (Option A) and the alternative route (Option B).

6.5.354 A single alignment for the proposed 400kV overhead line, including the proposed crossing of the River Avon, has been identified north of the River Avon in Section G.

<u>South of the River Avon</u>

6.5.355 The Proposed Development south of the River Avon in Section G would relate to the removal of the G Route and the construction of the proposed 400kV overhead line on two potential route options. As part of the preferred route (Option A), two spans of the BW Route would be removed and replaced with 132kV underground cables where the proposed 400kV overhead line would cross this route.

6.5.356 The Proposed Development in Section G would result in adverse indirect landscape effects on the Avon Rolling Valley Farmland (LLCA J6) in Section G, and on Clapton Moor (LLCA A2) and the Abbots Leigh Sandstone Uplands (LLCA F1) in Section E, south of the M5 motorway.

Photograph 6.48 (Viewpoint VPE11): Existing view from Church Lane in Portbury, looking north along the lane towards the Grade I listed Church of St Mary, Portbury (asset ID LB129) and the M5 motorway

Verified Photomontage 6.28 (Viewpoint VPE11): Anticipated view of the proposed 400kV overhead line on the preferred route (Option A) supported by T-pylons (obscured from view by existing vegetation) and steel lattice pylons, visible above trees adjacent to the M5 motorway during operation (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.3.5)**

6.5.357 Adverse effects would result from the introduction of 400kV pylons, which are taller than existing 132kV pylons; however the presence of existing 132kV overhead lines (in particular the G Route and the BW Route) in this Section reduces the susceptibility to change of the landscape in Section G from the introduction of the proposed 400kV overhead line. The landscape in Section G is also influenced by industrial activity at The Royal Portbury Dock and at Avonmouth, and by the M49 motorway and the M5 motorway, which is elevated over the River Avon. Seabank Power Station and the adjacent Seabank Substation, proposed to be extended as part of the Proposed Development, are in the north of Section G.

6.5.358 Higher ground to the south in Section E and to the east in Section G would provide backgrounding to the proposed 400kV overhead line although to varying extents. Proposed 400kV pylons would likely protrude above the backdrop of these hills in

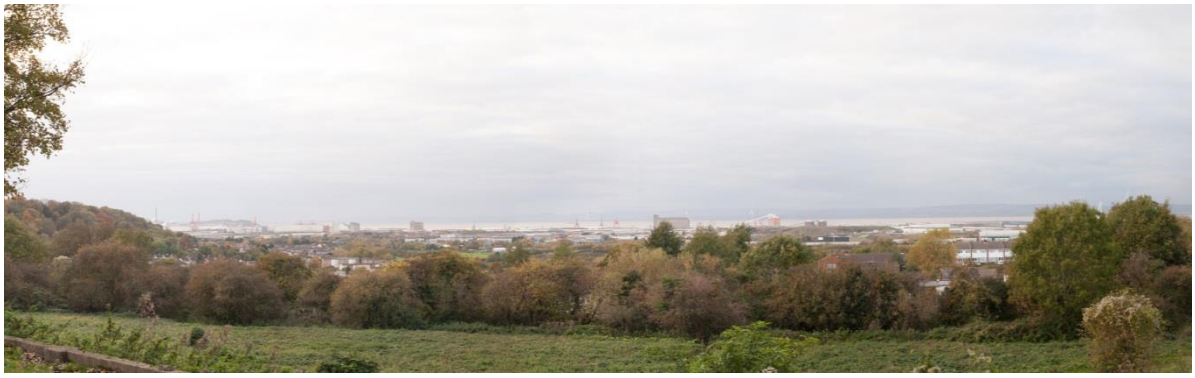
places. These hills provide greater backgrounding to the smaller existing 132kV pylons.

6.5.359 South of the River Avon, both the G Route and two spans of the BW Route would be removed (and the BW Route replaced with 132kV underground cables) where the proposed 400kV overhead line would cross the BW Route. A new 400kV overhead line on the preferred route (Option A) along the southern edge of this industrial area would result in an adverse effect on this part of the landscape, and a beneficial effect on the landscape further north across part of The Royal Portbury Dock resulting from the removal of the G Route.

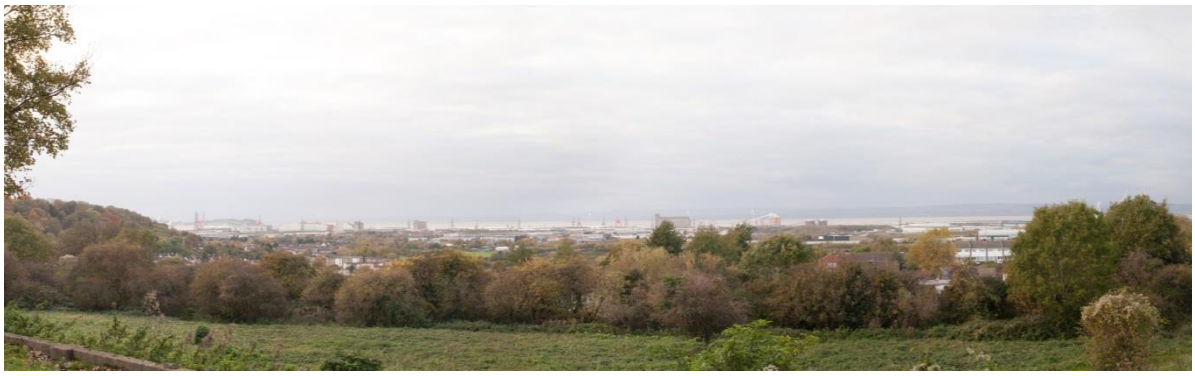
6.5.360 A new 400kV overhead line on either the preferred route (Option A) or the alternative route (Option B) south of the River Avon would have a low adverse magnitude of effect of **minor adverse** significance on The Royal Portbury Dock, which is heavily influenced by surrounding industry and development.

North of the River Avon

6.5.361 North of the River Avon, the Proposed Development (including the proposed 400kV overhead line using the steel lattice pylon, removal of a section of the G Route and installation of 132kV underground cables on the G Route) would result in direct and indirect adverse effects on Avonmouth and on the Pilning Levels (LLCA 20) towards the north of Section G. The Proposed Development would also result in indirect adverse landscape effects of negligible magnitude and **neutral** significance, on Shirehampton and Lawrence Weston to the east, and on higher ground further north and to the east in the Severn Ridges (LLCA 18), including Spaniorum Hill.



Photograph 6.49 (Viewpoint VPG7): Existing view from the Severn Way long distance route on PRoW BCC/566/10 at Kings Weston House (Grade I Listed) on Kings Weston Hill, looking northwest over trees towards Avonmouth Docks with the G Route and BW Route barely perceptible, and the tall G Route pylons crossing the River Avon just visible in the distance



Verified Photomontage 6.29 (Viewpoint VPG7): Anticipated view of the 400kV overhead line supported by steel lattice pylons visible above trees and buildings in the distance during operation and the G Route removed (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.105**)

6.5.362 The G Route crossing the River Avon on two tall pylons would be replaced by the proposed 400kV overhead line, which would result in a low adverse magnitude of effect in this industrial landscape. The removal of the G Route passing over part of the residential area of Avonmouth would result in a localised beneficial landscape effect of **minor beneficial** significance, in the immediate vicinity of this overhead line.

6.5.363 The proposed 400kV overhead line north of the River Avon would have a low adverse magnitude of effect on Avonmouth, in the Severn and Avon Vales landscape, which is heavily influenced by dockland cranes, 132kV overhead lines and wind turbines, as well as tall and large scale industrial buildings.

6.5.364 The proposed 400kV overhead line would have a greater effect where it runs closer to residential properties on the western edge of Avonmouth; although the magnitude of effect would also be low adverse due to the industrial character of the local landscape and partial screening and filtering by intervening tall industrial buildings and mature trees. Given the low sensitivity of this landscape to the proposed change, and the low adverse magnitude of effect predicted, the significance of this landscape effect would be **minor adverse**.

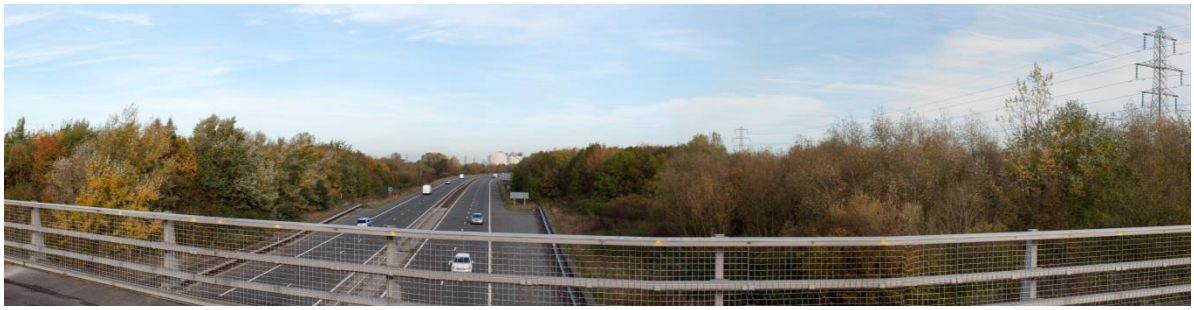
Photograph 6.50 (Viewpoint VPG6): Existing view from Clayton Street in Avonmouth looking southwest towards Avonmouth Dock

Verified Photomontage 6.30 (Viewpoint VPG6): Anticipated view of the 400kV overhead line supported by steel lattice pylon (Image for illustration purposes only, for correct perspective viewing see **Volume 5.8.12, Figure 18.2.104**)

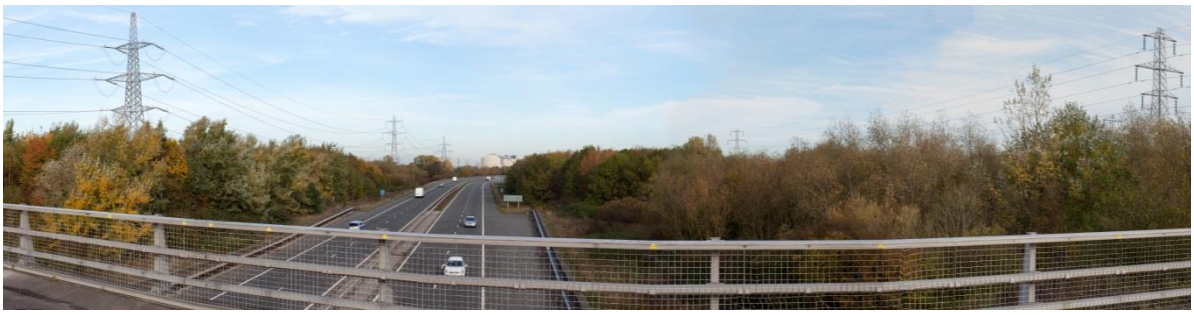
Photograph 6.51 (Viewpoint VPG1): Existing view from play area between Napier Square and Kings Street in Avonmouth, looking west towards Avonmouth Docks

Verified Photomontage 6.31 (Viewpoint VPG1): Anticipated view of the 400kV overhead line supported by steel lattice pylons (Image for illustration purposes only, for correct perspective viewing, see **Volume 5.18.2, Figure 18.2.99**)

6.5.365 The proposed 400kV overhead line in the northeastern part of Section G across Hallen Marsh would have a low to moderate adverse magnitude of effect where it runs across farmland, to the east of industry. The landscape character in this part of Section G has aspects of more rural and remote character, although is close to the M49 screened by embankment roadside trees, and existing 132kV overhead lines, compared to elsewhere in this Section for example adjacent to Avonmouth Docks where industrial activity is concentrated and busier.



Photograph 6.52 (Viewpoint VPG9): Existing view from Regional Cycle Route 10 on the bridge over the M49 motorway on Moorhouse Lane in Avonmouth, looking northeast along the motorway with the G Route, BW Route and gas works visible above trees



Verified Photomontage 6.32 (Viewpoint VPG9): Anticipated view of the 400kV overhead line supported by steel lattice pylons during operation (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.107**)

Photograph 6.53 (Viewpoint VPG4): Existing view from PRoW BCC/555/40 on Severn Road, west of the bridge over the M49 motorway, looking northwest towards Hallen Marsh, Hallen Industrial Estate and Seabank Power Station in the distance with the G Route, BW Route and two wind turbines visible above trees

Verified Photomontage 6.33 (Viewpoint VPG4): Anticipated view of the 400kV overhead line supported by steel lattice pylons during operation and a section of G Route, BW Route and the DA Route removed at the connection to Seabank Substation (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.102**)

6.5.366 The 132kV underground cables proposed to replace the G Route running between Avonmouth Substation and the disused railway in the northeast would minimise the

adverse landscape effects resulting from the proposed 400kV overhead line crossing and running along a similar alignment to the G Route in this location.

Photograph 6.54 (Viewpoint VPG2): Existing view from Regional Cycle Route 10 on the bridge over the M49 motorway on Moorhouse Lane in Avonmouth, looking southwest along the G Route and BW Route towards industrial buildings and wind turbines

Verified Photomontage 6.34 (Viewpoint VPG2): Anticipated view of the 400kV overhead line supported by steel lattice pylons during operation with a section of the G Route removed (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.100**)

6.5.367 Following reinstatement of the proposed BW Route 132kV underground cables swathe in the short-term, south of the River Avon in Section G (as part of preferred route (Option A)) and on the G Route running northeast southwest from Avonmouth Substation, reinstated cable swathes would likely result in a **neutral** significance of effect on landscape character local to proposed cable routes.

6.5.368 The proposed 400kV overhead line would have an adverse effect on trees and hedgerows, as identified in the AIA provided at **Volume 5.21.3, Figures 21.2.42 - 21.2.48**. These effects would occur south of the settlement of Avonmouth, across land north of Avonmouth Substation and across Hallen Marsh in the northeast; along roads, including the A369 The Portbury Hundred; along the disused railway; and surrounding industry throughout The Royal Portbury Dock in Section G. Hedgerow and tree cover would provide some filtering and partial screening, which would reduce the influence of the proposed 400kV overhead line in the landscape in Section G. However some trees and hedgerow would be removed to allow construction access and would not be allowed to regrow or be replaced because of the electrical safety clearances required. Field ditches and hedgerows are

components of the landscape character of the less developed areas of Section G in the northeast. The magnitude of effect would be low adverse and of **minor adverse** significance.

6.5.369 The value of the landscape in Section G is low overall due to the strong urban and industrial character of this landscape; the northeastern part of this Section has aspects of more rural and remote character (although in close proximity to the M49 motorway, and the G Route and BW Route), which contrasts with heavy industry elsewhere in Section G.

6.5.370 The proposed 400kV overhead line in Section G would have a generally **minor adverse** significance of landscape effect with effects reducing to **neutral** in the wider Severn and Avon Vales, and Bristol, Avon Valleys and Ridges landscape. This adverse landscape effect would be greater, although remaining of low adverse magnitude and **minor adverse** significance close to residential areas in Avonmouth; and would be greater in the northeast of Section G, increasing to a **minor to moderate adverse**, where the proposed 400kV overhead line would run northwards across farmland, to the east of industry.

6.5.371 **Table 6.30** identifies the magnitude and significance of effects on the landscape in Section G during the operation of the Proposed Development between the opening year and year 15.

Table 6.30 Summary of the Magnitude and Significance of Landscape Effects in Section G during Operation

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Operation (between the opening year and year 15)
Connection South of the River Avon			
Proposed 400kV overhead line on preferred route (Option A)	Low	Low adverse	**Minor adverse**
Removal of the G Route (Option A)	-	Low beneficial	**Minor beneficial**
Proposed 400kV overhead line on the alternative route (Option B) on a similar alignment to the G Route removed	Low	Low adverse	**Minor adverse**
River Crossing and Connection North of the River Avon			
Proposed 400kV overhead line	Low	Low adverse overall Low to moderate adverse across farmland in the northeast of Section G	**Minor adverse** **Minor to moderate adverse** across farmland in the northeast of Section G
132kV underground cables replacing the G Route northeast of Avonmouth Substation	Low	Low adverse reducing to negligible in the short-term	**Minor adverse** reducing to **neutral** in the short-term
132kV underground cables replacing line entries	Low	Low adverse reducing to negligible in the short-term	**Minor adverse** reducing to **neutral** in the short-term
Proposed extension to Seabank Substation	Low	Low adverse	**Minor adverse**

Section G: Avonmouth: Decommissioning Effects

6.5.372 The decommissioning of the Proposed Development in Section G (including 132kV underground cables) would result in very similar **minor adverse** significances of effects on landscape character as those identified for the construction stage although these effects would be experienced for a shorter duration. A temporary **minor to moderate adverse** significance of effect is predicted across Hallen Marsh (in the northeastern part of Section G) during the construction and decommissioning of the proposed 400kV overhead line in this location.

6.5.373 Following the decommissioning of the proposed 400kV overhead line in Section G there would be beneficial effects on landscape character of **minor beneficial** significance overall.

Section H: Hinkley Line Entries: Landscape Sensitivity (Susceptibility to Change and Value)

6.5.374 Wick Moor is a medium scale flat low-lying predominantly marsh and pastoral landscape. Valuable landscape features include generally intact boundary hedgerows with mature trees and the gently sloping landform falling to the open, low-lying Moors contribute to the landscape character of the area. However, the landscape surrounding the proposed Hinkley Line Entries has undergone change as a result of the existing Hinkley Point Power Station Complex and electricity overhead lines and is subject to further change as a result of the proposed Hinkley Point C Power Station.

6.5.375 The susceptibility to change of this landscape from the proposed line entries is low, due to the presence of existing overhead lines and the existing Hinkley Point Power Station Complex.

6.5.376 There are no national or local level landscape designations in Section H. The landscape in Section H including Wick Moor and part of the Eastern Lowlands has local value.

6.5.377 The landscape local to the proposed Hinkley Line Entries in Section H has a low sensitivity to the proposed overhead line modifications, as the susceptibility to change of the landscape in Section H from the Proposed Development is low and the landscape has local value.

6.5.378 **Table 6.31** summarises the sensitivity of the landscape in Section H to the Proposed Development with reference to the LLCA identified in section 6.4, which would potentially be affected by the Proposed Development.

Table 6.31Summary of Landscape Sensitivity in Section H

Relevant LLCA	Component of the Proposed Development	Susceptibility to Change	Landscape Value	Landscape Sensitivity
Wick Moor and Coast (WMC) Eastern Lowlands (EL)	Proposed Hinkley Line Entries	Low	Local	Low

Section H: Hinkley Line Entries: Construction Effects

6.5.379 Construction of the proposed Hinkley Line Entries in Section H would involve working areas, access tracks and operations including at-height working to remove existing 400kV overhead lines and to construct proposed 400kV overhead lines.

6.5.380 Short-term landscape effects arising from construction activity would be reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow planted as described in the AIA at **Volume 5.21.1, section 9** and discussed below in section 6.7.

6.5.381 Construction operations would involve the creation of temporary access tracks with some along existing tracks including Middle Moor Drove and the track along the

southern boundary of the power station. Temporary access tracks would introduce new elements into the landscape which would be visible particularly where they use parts of fields other than field boundaries to access proposed pylon positions. In those instances the construction access tracks would result in a localised disruption to the field pattern of the landscape.

6.5.382 Other operations which would affect landscape character would be the construction of temporary scaffolding over roads including Wick Moor Drove. These structures would have a localised influence on landscape character although their influence would typically only extend to the landscape immediately surrounding the temporary scaffold. Some roadside hedges would be removed or reduced in width to accommodate temporary scaffolding.

6.5.383 The overhead line routes generally run through an open landscape with low hedgerows and localised effects on landscape character would result from the removal of hedgerows and hedgerow trees prior to construction. Field patterns are irregular and in places defined by drainage ditches that would be retained.

6.5.384 Activity associated with construction would disrupt the generally remote rural landscape; however this landscape is heavily influenced by the existing Hinkley Point Power Station Complex, despite low level development and activity within the power station site being screened by intervening woodland to the south and east of the power station. Occasional tree removal from hedgerows, including short sections of tree lined hedges along tracks, would generally give rise to a low adverse magnitude of change on the landscape.

6.5.385 Overall, the magnitude of effect on landscape character arising from the construction operations would be low adverse across Wick Moor, North Moor and across farmland on ground rising to the south of Wick Moor. These effects would reduce to a negligible effect further away from the construction operations, where intervening landform and trees reduces the influence of proposed construction works in the wider landscape.

6.5.386 Along the route of the ZZ Route and the VQ Route, the magnitude of effect would generally be **minor adverse** as operations would be largely associated with dismantling pylons on the ground with some at-height works. Localised adverse effects would be experienced as a result of access tracks across fields to pylons and scaffolding across roads. The effects would be greatest on the landscape close to the overhead line removal but effects on landscape character generally would be local to the works rather than experienced more widely.

6.5.387 Given the low sensitivity of the landscape to the Proposed Development in Section H and the **low adverse** magnitude of effects, the significance of effects of construction operations on landscape would be **minor adverse**.

6.5.388 **Table 6.32** identifies the magnitude and significance of effects on the landscape in Section G during the construction of the Proposed Development.

Table 6.32 Summary of the Magnitude and Significance of Landscape Effects in Section H during Construction

Component of the Proposed Development	Sensitivity of the Landscape to the Proposed Development	Magnitude of Effect on the Landscape	Significance of Effect during Construction
Hinkley Line Entries	Low	Low adverse	**Minor adverse**

Section H: Hinkley Line Entries: Operational Effects (Opening Year to Year 15)

6.5.389 The proposed modifications to the ZZ Route and the VQ Route to connect to the proposed Shurton Substation (within the proposed Hinkley Point C Power Station site), and the introduction of the proposed interconnector overhead line between Hinkley Point B and Shurton Substation, would have **no effect** on the Quantock Hills AONB, due to the distance of approximately 5km at the closest point (between the proposed Hinkley Line Entries in Section H and this designated landscape). Existing overhead lines in the vicinity of the existing Hinkley Point Power Station Complex are perceptible in some views from the Quantock Hills AONB; however the proposed line entries would be barely distinguishable in the context of the existing Hinkley Point C Power Station or not visible over this distance.

6.5.390 The proposed Hinkley Line Entries in Section H would have a direct adverse effect on a greater extent of Wick Moor than currently affected by existing overhead lines and would result in a concentration of overhead lines to the west of the ZG Route retained. However three spans of the VQ Route and four spans of the ZZ Route would be removed and the proposed overhead line modifications would largely run across lower lying ground, minimising their influence on the surrounding landscape, and seen in the context of the existing Hinkley Point Power Station Complex to the immediate north.

Photograph 6.55 (Viewpoint VPH1): Existing view from bridleway WL23/57 running north along the minor road between Wick Moor Drove and Wick looking north (through a field entrance) towards the ZZ Route and the ZG Route, the VQ Route and the existing Hinkley Point Power Station

Verified Photomontage 6.35 (Viewpoint VPH1): Anticipated view north from a minor road to Wick, looking towards the proposed Hinkley Line Entries (Image for illustration only, for accurate perspective see **Volume 5.18.2, Figure 18.2.108**)

6.5.391 The proposed Hinkley Line Entries in Section H would also directly affect a small proportion of the Eastern Lowlands in the south, and in the west on the site of the proposed Hinkley Point C Power Station. The presence of the existing Hinkley Point Power Station Complex and existing overhead lines reduces the susceptibility to change of this landscape from the proposed line entries in Section H. The proposed Hinkley Point C Power Station is assessed as part of the landscape during the operation of the proposed line entries in the medium-term, owing to the interrelationship between the proposed power station and the Proposed Development, it can be reasonably foreseen that it will have been constructed by the time the proposed Hinkley Line Entries are operational.

6.5.392 The existing Hinkley Point Power Station Complex (including woodland to the south and east within the existing power station site) would provide backgrounding to the proposed line entries when seen from the south. The gently undulating landform surrounding the proposed line entries would provide some backgrounding and the Quantock Hills in the southwest and south would provide distant backgrounding to the Proposed Development when seen from the West Somerset coast in Section H.

Photograph 6.56 (Viewpoint VPH6): Existing view from PRoW WL23/107 west of Stolford (near the junction with PRoW WL23/62) looking southwest and west across Wick Moor towards the ZG Route, VQ Route and the ZZ Route backgrounded by the Quantock Hills AONB in the distance. The view includes the existing Hinkley Point Power Station Complex on the West Somerset Coast

Verified Photomontage 6.36 (Viewpoint VPH6): Anticipated view of the proposed Hinkley Line Entries supported by steel lattice pylons in the context of the existing Hinkley Point Power Station Complex, and the proposed Hinkley Point C Power Station, including mitigation on completion (Image for illustration purposes only, for correct perspective viewing see **Volume 5.18.2, Figure 18.2.113**)

6.5.393 Hedgerow and trees for example along field boundaries, watercourses and roads running across Wick Moor and the Eastern Lowlands would provide filtering and partial screening, which would help minimise the influence of the Proposed Development in the local landscape. However some trees and hedgerow would be removed to allow construction access and would not be allowed to regrow or be replaced because of the electrical safety clearances required. Hedgerows are a component of the landscape character of Study Area H and the surrounding area.

6.5.394 In summary, the magnitude of effect on landscape character resulting from the proposed line entries would be low adverse to negligible on the Wick Moor landscape and on part of the Eastern Lowland landscape, which has a low sensitivity to the Proposed Development in Section H. The proposed Hinkley Line Entries would have a localised **minor adverse to neutral** significance of effect on local landscape character.

6.5.395 **Table 6.33** identifies the magnitude and significance of effects on the landscape in Section H during the operation of the Proposed Development between the opening year and year 15.

Table 6.33 Summary of the Magnitude and Significance of Landscape Effects in Section H during Operation

Component of the Proposed Development	**Sensitivity of the Landscape to the Proposed Development**	**Magnitude of Effect on the Landscape**	**Significance of Effect during Operation (between the opening year and year 15)**
Hinkley Line Entries	Low	**Low adverse to Negligible**	**Minor adverse to Neutral**

Section H: Hinkley Line Entries: Decommissioning Effects

6.5.396 The decommissioning of the 400kV overhead line entries proposed in Section H would result in a low adverse magnitude of effect and **minor adverse** significance of effect on landscape character, similar to adverse landscape effects identified for the construction stage of the Proposed Development. However landscape effects during decommissioning would be experienced for a shorter duration.

6.5.397 The decommissioning of the proposed line entries in Section H would result in a **minor beneficial to neutral** significance of effect on the landscape, in the context of the existing Hinkley Point Power Station Complex and the proposed Hinkley Point C Power Station.

Assessment of Lighting during Construction

6.5.398 Normal construction work would not require lighting. However, winter working may require task specific lighting due to the shorter days. Landscape effects as a result of construction lighting at the beginning and at the end of the working day, would be localised, and experienced for a limited duration and for a short period of time. Planned temporary construction lighting may be required for installing protective scaffold netting over roads, (which has to be done when the roads are not busy), and for other works required to be undertaken outside of the normal working hours. Use of low level directional lighting would limit light pollution and minimise effects on landscape character.

6.5.399 Temporary low level lighting would be introduced into the landscape affected by the construction of the Proposed Development for short periods of time. Construction lighting would be more perceptible in the rural, more remote landscapes in the project study area, and less perceptible in the busier urban areas in particular in The Royal Portbury Docks and in Avonmouth, as well as in the context of development on the north eastern edge of Bridgwater beyond the M5 motorway. Typically construction lighting would result in localised low adverse temporary effects on landscape character of **minor adverse** significance in rural remote areas. Construction lighting in the landscapes affected and influenced by existing and future development, for example in The Royal Portbury Docks, at Avonmouth in Section G, and in the context of the existing Hinkley Point Power Station Complex and construction works for the proposed Hinkley Point C Power Station in Section H, would result in a scale of change to landscape character that would be barely perceptible and of **neutral** significance.

6.5.400 Construction lighting would not increase the magnitude of effects on landscape. 24hr working is required at underground cable joint bays, but these works would be done undercover. Light spill would therefore be avoided or limited, and disturbance to landscape character would be minimised. Motion sensor lighting would be required for safety reasons at underground cable jointing bays and around main compound sites. This would have a **neutral** significance of effect on landscape character due to the duration motion sensor lighting would be lit at any one time.

6.5.401 During operation Sandford Substation would not be manned and lighting would only be used if maintenance works are required. No permanent lighting effects on landscape character are predicted. Any emergency works requiring lighting would be an infrequent event and for short periods and is therefore unlikely to have an effect on landscape.

Construction Programme Sensitivity Analysis

6.5.402 As considered in **Volume 5.5.1, section 5.6** there is the potential for changes to the construction programme (provided at **Volume 5.3.2, Appendix 3B**) to arise due to the DCO being determined later than 2015 or changes to connection agreements (see **Volume 5.2.1**) or a combination of both of these influences.

6.5.403 Therefore, this chapter has also considered, at a high level, the potential for landscape effects to occur for each of the construction programme scenarios detailed at **Volume 5.5.1, Table 5.4**.

6.5.404 Variation 1 and 2 of the construction programme scenarios would result in the construction programme being for a similar timescale, albeit at different

commencement and completion dates, up to three years later than presently agreed. These variations in programme would not alter the landscape effects predicted in section 6.5 of this chapter.

6.5.405 Variation 3 of the construction programme scenarios would result in the timescale for construction of the Proposed Development increasing by three years. Construction operations for the proposed 400kV underground cables would take place for a longer duration of up to six and a half years (as opposed to four years in the current programme), albeit outside of the winter period. The duration of landscape effects would increase from short-term (0 to 5 years) to medium-term (5 to 15 years) which would result in a greater adverse magnitude and significance of effect on landscape character within the Mendip Hills AONB in Section C, during construction. Due to the extent of 400kV underground cables work proposed in the northern part of Section B and the southern part of Section D it is not anticipated that there would be any change in the duration that landscape effects would arise during construction works in these locations.

6.5.406 Landscape effects arising from construction operations in other Sections would be experienced for a similar timescale to that presently considered, albeit at different commencement and completion dates up to three years later than presently agreed. These variations in programme would not alter the landscape effects predicted in section 6.5 of this chapter.

LoD and the Order Limits

6.5.407 LoD (lateral, longitudinal and vertical) relating to the proposed route of the overhead line and underground cables, and flexibilities relating to the siting of certain construction components within the Order Limits are discussed at the beginning of this section under 'sources of effect'.

6.5.408 LoD and the Order Limits have been considered when assessing the predicted significance of effect of the Proposed Development on landscape character and features. The LoD of the Proposed Development and the components with the potential to be sited anywhere within the Order Limits would not result in a variation to the significance of effects on landscape character identified above within each Section of the Proposed Development. This is because the maximum distance or measurement of variation within which these works would be constructed is not considered great enough to alter the significance of landscape effects.

6.5.409 This landscape assessment has also considered the potential effects on trees and hedgerow within the LoD and Order Limits, as identified in the AIA. The AIA at **Volume 5.21.1, section 7.1** states that over the entire route (in Sections A to H), on the balance of probabilities, the number of additional tree losses caused by variations in design would be roughly equal to those trees that consequently could be retained. The AIA includes an assessment of change in effects only where movement of the overhead line or underground cables would have a significantly greater net impact (as defined in **Volume 5.21.1, section 7.1**) than the preferred alignment.

6.5.410 The AIA at **Volume 5.21.1, section 7.6** identifies the number of trees, tree groups and hedgerow that could potentially be affected by the Proposed Development, generally in addition to those already proposed for removal or pruning. These include trees and hedgerows located within or adjacent to temporary working areas

(for example, for pylon construction and scaffold erection) that could theoretically be retained, and those within the LoD of the 400kV and 132kV overhead lines and underground cables. In combination, these would not be affected by the connection as assessed but could be affected in the event of necessary deviation within the LoD (with other trees and hedges thereby not affected) or where micro-siting constraints preclude their retention. Where component movement would result in a 'significant' net change in magnitude of impact on trees and hedgerow, these are identified in each Section assessment at **Volume 5.21.1, section 7.6**.

Climate Change Effects

6.5.411 In line with EU guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Union 2013), and GLVIA3 (Ref 6.1), consideration is given to the effects of climate change on landscape character and or features.

6.5.412 GLVIA3 (Ref 6.1) paragraph 5.33 also states that the landscape should be considered as it is at the time, but consideration should also be given to the future baseline i.e. what it may be like in the future in the absence of the development proposed. The assessment of effects on the landscape is therefore made not only at a single point in time but is set against a backdrop of continual change.

6.5.413 In the consultation draft of GLVIA3, the Landscape Institute identified climate influence as a key variable in defining landscape character and "*a major force for change within the landscape that will potentially affect landscape character, perceptions of valued landscapes and the integrity of landscape elements in the years ahead.*"

6.5.414 Climate change impacts are taken into account in this context even though it may be difficult to predict what may happen at a local level.

6.5.415 Changes to landscape predicted in the Southwest of England by the partnership group Climate South West in its report Warming to the Idea (Ref 6.19) include:

- the drying of important peatlands as a result of increased drought, endangering ecosystems and public water supplies;
- increased uncertainty for the agricultural sector with regard to crop types, water availability, pests and diseases. This is significant for the south west where 70% of land is taken up by agriculture. These changes could also lead to indirect changes to landscape. Some benefits may arise as a result of longer growing seasons and increased potential for novel agricultural crops;
- changes to important "island" habitats, such as the Puriton Hills and the Mendip Hills, where species are likely to begin to move "uphill" until they can go no further;
- changes to designated landscapes and features as a result of changes in water, temperature and storminess, for example the rhines in the Levels, designated geomorphological features (SAC, SSSIs); and
- increased storminess, erosion and a sea level rise of 20 centimetres by 2030 would cause changes to the freshwater habitats in the Somerset Levels, compromise sea defences and increase the frequency of coastal flood events with associated effects on the tourism economy.

6.5.416 The Proposed Development would result in direct adverse effects on landscape character within Sections A to B and Sections D to H, due to the introduction of linear development (comprising conductors suspended from arms on supports at regular distances) and new site-specific electrical infrastructure. Overall this would affect landscape character adversely by presenting a manufactured and functional form into rural and urban landscapes.

6.5.417 Planting included in the landscape mitigation proposals for new site-specific infrastructure discussed in section 6.7 above would consist of native species of local provenance where available with all trees and hedge plants, seed sources and nursery root management specified in accordance with UK Forestry Standard Guidelines: Forests and Climate Change (Ref 6.20). This would ensure mitigation planting has greater resilience to the potential effects of climate change.

6.5.418 Whilst there are potentially important changes to these landscapes as a result of climate change, it is not predicted that there would be a change from rural designation to semi-rural or urban, or from urban to rural designation. In addition, the susceptibility to change of these landscapes from the Proposed Development is already influenced by the presence of existing overhead lines. These would remain in the future, in the absence of the Proposed Development and are unlikely to be affected by climate change; even with increased storminess, the risks to electricity infrastructure are predicted to be low (Ref 6.21).

6.5.419 As a result, the overall assessment of the effects of the Proposed Development would not change.

Indicative Access for Future Maintenance

6.5.420 As detailed in **Volume 5.3.1, section 3.7**, National Grid would require access to ensure the Proposed Development could be appropriately maintained. Indicative maintenance access routes are illustrated at **Volume 5.3.3, Figure 3.5 – 3.6**.

6.5.421 Access to maintain the Proposed Development would be made by foot, by a 4x4 vehicle, or by a tractor and trailer and typically would utilise existing access routes, (minimising temporary disturbance across farmland), and or run through and adjacent to residential and farm property. In some instances temporary stone roads or aluminium track way may be required across farmland. Temporary disturbance to farmland would be minimised by routing maintenance access along existing features such as hedgerow and ditch field boundaries, and watercourses.

6.5.422 Maintenance activity would be small scale, and would result in no greater than a minor alteration, if any, to landscape features such as hedgerow and trees. Maintenance operations would be infrequent, temporary and for a short duration. Upon completion of any maintenance works, surfaces would be restored to their condition at the commencement of the works.

6.5.423 In the short-term maintenance access and operations would result in a minor or very minor alteration to key features or characteristics of the existing landscape. The scale of change on landscape character would be low or barely perceptible, and the magnitude of effect would be low adverse or negligible. The significance of these localised landscape effects in Sections A to H would be **minor adverse** or **neutral.**

6.6 Inter-relationship of Potential Effects

6.6.1 Landscape planting proposals, (both guaranteed embedded mitigation and the OSPES enhancement measures, which cannot be guaranteed as detailed in section 6.7 below), have been devised in consultation with the ecologists preparing the Biodiversity and Nature Conservation assessment, provided at **Volume 5.8.1**. The proposals and the associated effects these may have on ecology are clearly set out and addressed in **Volume 5.8.1**. No further inter-related effects are anticipated.

6.6.2 The potential effects on flood risk as a result of temporary topsoil stockpiling and temporary steel mesh fencing fitted with olive green tarpaulin to the boundary of some construction compounds and work areas has been considered in the Hinkley Point C Connection Route Flood Risk Assessment, provided at **Volume 5.23.5**. Drainage channels would be built into the bunds to allow for the flow of surface water across the compounds and tarpaulin fixed to steel mesh fence panels would be mounted so that there was a minimum 0.6m high gap at the bottom of the tarpaulin to allow water to pass through the mesh fence panels; thereby ensuring no net loss of flood storage as a result of the construction compounds.

6.6.3 As identified in the Biodiversity and Nature Conservation assessment at **Volume 5.8.1, section 8.7**, bird diverters are required on the proposed 400kV conductors directly spanning the King's Sedgemoor Drain (in Section A), and the Huntspill River and River Brue (in Section B), marking the overhead line either side of the watercourse. Bird diverters have been considered in this landscape assessment, when assessing the effect of the proposed 400kV overhead line on landscape character in Section A and B; however the bird diverters themselves would result in limited localised landscape effects.

6.6.4 Other embedded mitigation, that is to say, built into the design of the Proposed Development, has been considered in this landscape assessment; no additional environmental mitigation proposals are anticipated to affect landscape character and or landscape features to the extent that they would change the magnitude and or significance of effects judgements recorded in this chapter.

6.7 Mitigation

6.7.1 This part of the chapter describes landscape mitigation proposals that National Grid can guarantee and will deliver via Requirements set out in the DCO. These guaranteed mitigation measures are considered further in the assessment of residual effects at section 6.8 of this chapter.

6.7.2 This landscape assessment (and the visual assessment at **Volume 5.7.1**) does not take account of the anticipated beneficial effects of enhancement work proposed in the OSPES at **Volume 5.25**. National Grid cannot guarantee the OSPES enhancement works because it relies on landowners' agreement and LPAs' actions, and therefore cannot be taken into account in the assessment of residual effects. However whilst there is some uncertainty regarding the OSPES, it is requested that PINS has regard to these enhancements, which have a 'reasonable chance' of delivery.

Mitigation during Construction

6.7.3 Mitigation of construction effects on landscape character will be secured via the CEMP at **Volume 5.26.1,** which will be the subject of a Requirement in the DCO.

6.7.4 The Draft CEMP includes measures for lighting during construction of the Proposed Development, detailed at **Volume 5.26.1**. The use of low level directional lighting at work areas and access and egress, and for welfare and site security cabins would minimise effects on the landscape (and views), as would motion sensor lighting in areas of high security risk and outside covered structures at cable jointing bays for security and access and egress

6.7.5 The Draft CEMP includes additional measures relevant to mitigating landscape (and visual) effects during construction, detailed at **Volume 5.26.1**. General measures would include identification of trees, tree groups and hedges that would require removal, protection for those to be retained close to the works, and proposals for reinstatement detailed in plans. All works would be undertaken to British Standards. Stockpiled soils would be protected, traffic would be managed and the siting and height of temporary buildings, cabins, equipment and lighting carefully considered to minimise effects on landscape and visual amenity.

6.7.6 Measures would be undertaken to mitigate landscape and visual effects of the following temporary construction compounds and working areas:

- A38 Bristol Road (overhead line) Compound;
- River Axe underground cable works and cable bridge option near Waterfront Farm, Biddisham Lane;
- Towerhead Road Compound and 400kV underground cable works;
- Engine Lane 132kV underground cable works, Nailsea; and
- Nailsea Compound and 132kV underground cables works on the northwest edge of Nailsea.

6.7.7 Appropriate construction mitigation measures will be undertaken to reduce the influence of compounds and construction activity in the surrounding landscape, such as:

- temporary topsoil bunding with stockpiles around the edges of the compounds and some work areas; and
- temporary steel mesh fencing erected to a minimum height of 2m and fitted with olive green tarpaulin along some boundaries of the compounds or work areas.

Mitigation during Operation

6.7.8 Embedded mitigation built into the design of the Proposed Development is detailed in **Volume 5.2.1** and **Volume 5.5.1, section 5.6** and includes reference to:

- careful routing of the proposed Bridgwater to Seabank connection having regard to the Holford Rules;

- removal of the F Route and the G Route between Bridgwater and Avonmouth Substations;
- partial removal of other 132kV overhead lines in the vicinity of or crossed by the route of the proposed 400kV overhead line;
- 400kV underground cables proposed through the Mendip Hills AONB; and
- careful siting of new site-specific infrastructure such as CSE compounds and Sandford Substation having regard to the Horlock Rules.

6.7.9 Measures to mitigate adverse landscape and visual effects of the Proposed Development during operation are detailed below.

6.7.10 Planting is often used to mitigate adverse effects of new structures on landscape character (and on views). It is not feasible or desirable to seek to screen pylons by planting trees or shrubs close to these structures. If planted close to pylons, trees:

- could infringe safety clearances;
- would take many years to approach the heights of pylons;
- would interfere with farming and other land uses; and
- would look out of character when seen as ‘clumps’ of trees or copses at intervals coinciding with pylon positions.

6.7.11 Planting will be used to mitigate adverse landscape and visual effects of new site-specific infrastructure comprising CSE compounds, Sandford Substation and the River Axe and Towerhead Brook cable bridge crossings. It is feasible and desirable to seek to screen site-specific infrastructure by planting trees or shrubs close to these structures in order to reduce adverse effects on landscape and views. These individual structures are lower than pylons, less frequent and often occupy a larger area meaning groups of trees would not look out of character and would screen the lower elevations of such infrastructure over time.

6.7.12 The proposals for planting comprise four principal activities. These include mitigation measures which are guaranteed and National Grid can deliver; and other measures which cannot be guaranteed because others need to be involved and National Grid do not have the commitment necessary.

6.7.13 Mitigation measures which National Grid can guarantee and will deliver via Requirements set out in the DCO comprise:

- planting replacement trees, tree groups and hedges ‘in-situ’ (following construction); and
- new planting of trees, tree groups and hedges with new site-specific infrastructure.

6.7.14 Planting proposals which National Grid cannot guarantee because others need to be involved and National Grid do not have the commitment necessary comprises:

- planting replacement trees, tree groups and hedges in new locations with landowner agreement as part of reinstatement of land (following construction); and
- new planting enhancement works as part of the OSPES that relies on landowners' agreement and the LPAs' actions.

6.7.15 Guaranteed planting of replacement trees, tree groups and hedges 'in-situ' as part of reinstatement of land is detailed in the AIA at **Volume 5.21, section 9**. Guaranteed new planting of trees, tree groups and hedges with new site-specific infrastructure, comprising CSE compounds, Sandford Substation and bridge crossings, is detailed further below.

6.7.16 These guaranteed mitigation measures have been considered in this landscape assessment and are taken account of in the assessment of residual effects at section 6.8 of this chapter.

6.7.17 Planting replacement trees, tree groups and hedges in new locations with landowner agreement is detailed in the AIA at **Volume 5.21.1, section 9**. New planting enhancement works as part of the OSPES is detailed in **Volume 5.25**. These measures are not guaranteed and have not been considered as part of this landscape assessment. Whilst there is some uncertainty regarding the above proposals, it is requested that PINS has regard to these proposals, which have a 'reasonable chance' of delivery.

New Planting of Trees, Tree Groups and Hedges with New Site-specific Infrastructure

6.7.18 National Grid can guarantee new planting of trees, tree groups and hedges with new site-specific infrastructure and this will be delivered via Requirements set out in the DCO. New site-specific infrastructure comprises CSE compounds, the proposed Sandford Substation and bridge crossings where mitigation planting will give beneficial screening to the lower elevations of new built form and give longer-term screening to taller structures.

6.7.19 Guaranteed site-specific mitigation proposals are described below in relation to the relevant Sections of the Proposed Development, and are illustrated on the Figures listed below at **Volume 5.7.3**.

- **Figures 7.32.1 - 7.32.4**: Bridgwater Tee 400kV CSE Compound Landscape Mitigation and Detailed Planting Plans;
- **Figures 7.33.1 - 7.33.5**: South of Mendip Hills 400kV CSE Compound Landscape Mitigation and Detailed Planting Plans;
- **Figure 7.34.1**: River Axe Cable Bridge Option Landscape Mitigation and Detailed Planting Plan;
- **Figures 7.35.1 - 7.35.5**: Sandford 400kV/132kV Substation Landscape Mitigation and Detailed Planting Plans; and
- **Figure 7.36.1**: Towerhead Brook Bridge Landscape Mitigation and Detailed Planting Plan.

6.7.20 The figures for site-specific landscape mitigation identified above include planting plans that detail the location, number, species, size and planting density of the proposed planting. Planting would consist of native species of local provenance where available with all trees and hedge plants, seed sources and nursery root management specified in accordance with UK Forestry Standard Guidelines: Forests and Climate Change (Ref 6.20).

6.7.21 Mitigation proposals would be implemented in accordance with the 'Landscape Specification for Site-Specific Mitigation' at **Volume 5.7.2, Appendix 7K**, which would be delivered via Requirements set out in the DCO. The Landscape Specification has been produced using National Building Specification Landscape (NBS Landscape) (Ref 6.22) and describes the materials, standards and workmanship expected during construction, implementation and maintenance of site-specific hard and soft landscape mitigation works. This includes cultivation, importing of materials and other operations to ensure plant establishment.

6.7.22 Monitoring and review of the new planting would be undertaken by the managing organisation and where relevant in liaison with the landowner. The managing organisation would review and update the maintenance and management strategy on an annual basis to ensure it is meeting the management aims and objectives. This would include assessing if the mitigation measures are achieving the aims and objectives to reduce adverse visual effects, enhance landscape character and reduce the influence of new site-specific infrastructure in the wider landscape, as described below.

6.7.23 Any trees or shrubs planted that, within a period of five years after planting, are removed, die or become seriously damaged or diseased, would be replaced in the first available planting season with a specimen of the same species and size as that originally planted, unless otherwise agreed.

6.7.24 The following establishment periods for reinstated and new grassland, hedgerows and trees proposed as replacement or mitigation planting has been considered as part of this landscape assessment. However the time it would take for replacement and new planting to reach maturity is influenced by the size and species planted:

- 1-3 years for grasslands;
- 3-5 years for hedgerows; and
- 15 years onwards for trees.

6.7.25 Residual effects have been assessed in the long-term after 15 years when site-specific mitigation planting would have reached maturity and would provide screening of site-specific infrastructure. The height of planting after 15 years is identified below and detailed further on the site-specific mitigation Figures listed above:

- native tree planting 7-10m high;
- native understorey shrub planting 4-6m high; and
- native hedgerow planting 1.5m high (dependant on maintenance).

6.7.26 The planting heights identified have been used in the assessment of residual landscape effects of the Proposed Development provided later in this chapter at section 6.8.

6.7.27 The guaranteed embedded site-specific mitigation proposals for new infrastructure that are to be secured via Requirements set out in the DCO are described in turn below.

Section A: Bridgwater Tee 400kV CSE Compound

6.7.28 The Bridgwater Tee CSE compounds are proposed adjacent to the VQ Route and the proposed 400kV overhead line across Horsey Level in Section A.

6.7.29 Site-specific mitigation proposals are illustrated at **Volume 5.7.3, Figures 7.32.1 - 7.32.4** and will:

- reinforce field boundaries to provide additional filtering and screening of the proposed CSE compounds and to reinforce landscape character;
- reflect the pattern and composition of hedgerows, hedgerow trees and woodland blocks typical of the Somerset Levels landscape in Section A; and
- minimise adverse effects in views across the relatively open Horsey Level landscape and in more distant views from elevated viewpoints on Puriton Ridge.

6.7.30 Mitigation planting includes native trees and shrub species, of local provenance where available, and would be designed to reflect and support the local hedgerow and woodland pattern of the area.

6.7.31 New hedgerow planting is proposed to ‘gap up’ and thicken existing hedgerows near the Bridgwater Tee CSE compounds.

6.7.32 Site-specific mitigation proposals also include native structure planting, scattered trees and native hedgerow planting, similar in character to existing vegetation surrounding Withy Pool on Horsey Level, intended to filter and screen new infrastructure at CSE compounds.

6.7.33 Site-specific mitigation planting around the eastern CSE compound consists of additional planting to ‘thicken’ existing hedgerows using whips and feathered trees.

Section B: South of Mendip Hills 400kV CSE Compound

6.7.34 In the northern part of Section B, siting the proposed CSE compound in the field adjacent the minor road bridge and the M5 motorway, would help minimise the influence of this new structure in the surrounding landscape (and in views) due to screening by the motorway and bridge embankments, by embankment trees and shrubs, and by field boundary hedgerow and trees. Mitigation proposals for landscape and views aim to reinforce existing low level screening of the proposed CSE compound, and are illustrated at **Volume 5.7.3, Figures 7.33.1 - 7.33.5**.

6.7.35 Mitigation proposals would provide beneficial screening to the lower elevations of new built form as it establishes and would give longer term screening to taller structures. New native structure planting is proposed to the north, east and west of the proposed CSE compound and to the east of the existing minor road bridge embankments. Over time proposed planting would mature and reduce the influence of the proposed CSE compound in the surrounding landscape and in the setting of the Mendip Hills AONB.

6.7.36 Proposed mitigation planting would reduce the influence of the proposed CSE compound in the surrounding landscape, and within the setting of the Mendip Hills AONB. Mitigation planting would minimise adverse effects on visual amenity including views from and to the Mendip Hills AONB.

6.7.37 Additional woodland structure planting, scattered trees and pollarded willow planting is proposed to the northeast of the existing minor road bridge embankments along the boundary to the M5 motorway and field boundaries; to minimise adverse effects on the landscape and visual amenity, including views from the M5 motorway 'views corridor', from local PRoW and from higher ground in the Mendip Hills AONB. The existing hedgerow and ditch to the south of the proposed CSE compound site and further structure planting on the south eastern boundary is proposed to further reduce the influence of this new feature in the landscape and to enhance landscape character. Along the field boundaries to the south of the CSE compound pollarded willows are proposed interspersed along the existing hedgerow reinforcing existing field boundaries and enhancing landscape character.

Section B: River Axe Cables Bridge Option

6.7.38 In the northern part of Section B, the route of the proposed 400kV underground cables would run northeast from the South of Mendip Hills CSE compound, and would run over or under the River Axe via a cables bridge or HDD as detailed at **Volume 5.3.1, section 3.7**. The preferred installation option in this location is the cables bridge.

6.7.39 If the River Axe cables bridge option is constructed in the location proposed, mitigation planting would be provided as shown on **Figure 7.34.1** at **Volume 5.7.3**. This figure illustrates planting along the River Axe to filter and screen views towards the cables bridge from Waterfront Farm and in views southwest including from properties on Kennel Lane. North of the River Axe close to the cables bridge option, native hedgerow and structure planting would be supplemented with extra-heavy standard native trees to provide additional height and some instant screening of the cables bridge. South of the River Axe, native hedgerow with extra-heavy standard native trees would be planted to filter and screen views from

Waterfront Farm, supplemented with native structure planting adjacent to existing trees along the southwestern boundary of this property.

6.7.40 The above mitigation planting along the River Axe would be 5m from the top of bank to maintain access to the watercourse for the Environment Agency.

Section D: Sandford 400kV and 132kV Substation

6.7.41 Sandford Substation is proposed in the southern part of Section D north of Sandford. Mitigation proposals relating to Sandford Substation are illustrated at **Volume 5.7.3, Figures 7.35.1 - 7.35.5.**

6.7.42 Mitigation proposals around the proposed substation have been prepared in accordance with landscape guidelines included in North Somerset Council's 'North Somerset Landscape Character Assessment' (Ref 6.10). Sandford Substation is proposed in a relatively open landscape with little woodland. However, lines of riparian trees along rhynes and ditches, and orchards surrounded by shelterbelt trees are characteristic features of the landscape. This type of planting has been incorporated into mitigation proposals for the proposed substation.

6.7.43 Existing trees, shrubs and hedgerow within the proposed 400kV and 132kV underground cable routes would be removed during construction. Replacement trees and shrubs would not be planted above the underground cables.

6.7.44 Drove Way runs in a north-south direction to the east of the proposed substation, passing over the disused railway on Drove Way Bridge. The embankments of this bridge are heavily vegetated with trees and shrubs, which would be retained and reinforced with new tree and shrub planting to provide additional screening of the proposed substation from the east.

6.7.45 Mitigation planting proposed along Parish Rhyne, which is to be retained and realigned as part of the proposed substation includes native hedgerow, riparian tree planting and aquatic planting that will be in keeping with the local character of the area.

6.7.46 The proposals for the area between the existing rhyne and Drove Way incorporate proposed meadow grassland and scrub with scattered tree planting to enhance wildlife habitats. Landscape mitigation proposals include orchard planting around the northern and western boundaries of the proposed substation, to create a landscape buffer and partial screening to the proposed substation. Orchards and native tree planting proposed immediately adjacent the substation would provide partial filtering and screening of the proposed substation in views. To assist the establishment of new orchard planting, the mitigation proposes that the outer edges are to be planted with shelter belt trees. The detailed design and proposed management of orchards has been prepared in accordance with Natural England guidelines.

6.7.47 Native woodland structure planting is included in mitigation planting along the eastern boundary of the proposed substation. This would provide screening of proposed infrastructure and would provide longer term screening to taller structures reducing the influence of this new infrastructure in the surrounding area.

6.7.48 The retention and enhancement of the existing orchard tree planting next to Droveway Farm south of the dismantled railway line shown in the mitigation proposals would assist in filtering and screening views from the south.

6.7.49 Presently, the Strawberry Line long distance route (cycleway and footpath) runs along the road on Drove Way and over Drove Way Bridge adjacent the substation site. The mitigation proposals include the re-alignment of the Strawberry Line long distance route along the disused railway. The re-alignment would continue approximately along the route of the disused railway between the existing route of the Strawberry Line at Thatcher's orchard in the south to Drove Way Bridge adjacent to the substation, continuing adjacent the bridge embankment and connecting to the existing route of the Strawberry Line on the east side of Drove Way. The re-alignment would provide a surfaced 3m wide footpath cycleway off road with native woodland structure planting providing a buffer and partial screen to the substation. The mitigation proposals include a public car park with ten parking spaces adjacent to the re-aligned Strawberry Line as a start and finish point to the route.

6.7.50 The mitigation proposals envisage that existing vegetation along the disused railway line would be enhanced with new planting and would be managed to provide greater screening of the proposed substation in views from the potential re-alignment of the Strawberry Line long distance route along the dismantled railway. It also would provide additional screening in views for properties to the south along Nye Road.

6.7.51 An attenuation pond with marginal aquatic vegetation is included on the east side of the proposed substation in the proposals.

Section D: Towerhead Brook Bridge

6.7.52 In the southern part of Section D, the route of the proposed 400kV underground cables would run northeast over Towerhead Brook via a permanent cables bridge as detailed at **Volume 5.3.1, section 3.7**.

6.7.53 Mitigation planting is proposed along each side of the proposed cables bridge over Towerhead Brook, and would comprise native hedgerow, and native extra-heavy standard trees. Planting would replace hedgerow and trees removed to accommodate the permanent bridge crossing and to reduce the influence of this new structure in the surrounding area. Site-specific mitigation proposals are illustrated at **Volume 5.7.3, Figure 7.36.1**.

Section G: Seabank Substation Extension

6.7.54 Mitigation planting is not proposed around the proposed extension to Seabank Substation as adverse landscape effects are limited due to the existing landscape being heavily influenced by the power station, existing overhead lines and surrounding industry.

6.8 Residual Effects

6.8.1 Residual effects on landscape character during the construction and the operation of the Proposed Development are considered below for each Section of the Proposed Development.

6.8.2 Residual landscape effects take account of mitigation proposals that National Grid can guarantee and will deliver via Requirements set out in the DCO, as detailed in section 6.7 of this chapter. These comprise:

- planting replacement trees, tree groups and hedges 'in-situ' (following construction); and
- new planting of trees, tree groups and hedges with new site-specific infrastructure.

6.8.3 Residual effects during the operation of the Proposed Development are assessed as those which would occur from the Proposed Development fifteen years after completion, taking account of guaranteed new planting of trees, tree groups and hedges with site-specific infrastructure detailed in section 6.7.

6.8.4 The verified photomontages at **Volume 5.18** take account of guaranteed site-specific mitigation proposals and illustrate the Proposed Development both on completion and during operation after fifteen years when mitigation planting would have established. Photomontages are provided during winter when the trees have no leaves. Where practical, summer photomontages of guaranteed mitigation planting with site-specific infrastructure are provided to illustrate the change in views when trees are in leaf and provide greater filtering or screening.

6.8.5 The assessment of residual landscape effects below and the verified photomontages at **Volumes 5.18** do not take account of planting works National Grid cannot guarantee. These planting works are detailed at section 6.7 of this chapter and comprise:

- planting replacement trees, tree groups and hedges in new locations with landowner agreement as part of reinstatement of land (following construction); and
- new planting enhancement works as part of the OSPES, which relies on landowners' agreement and the LPAs' actions.

6.8.6 Whilst there is some uncertainty regarding these measures, it is requested that PINS has regard to these proposals, which have a 'reasonable chance' of delivery.

Residual Effects during Construction

6.8.7 The Draft CEMP referred to above at section 6.7 of this chapter and provided at **Volume 5.26.1** includes measures to minimise landscape (and visual) effects during proposed construction works. Implementation of the CEMP would further reduce the magnitude of landscape effects resulting from proposed construction works. However it is anticipated that the significance of residual effects on landscape character during construction would be the same as those predicted in the landscape assessment at section 6.5 of this chapter.

Residual Effects during Operation

6.8.8 The assessment of residual effects during operation takes account of guaranteed mitigation planting with new site-specific infrastructure and mitigation proposals for proposed CSE compounds, Sandford Substation and bridge crossings. The guaranteed site-specific mitigation planting is detailed in section 6.7 of this chapter and illustrated at **Volume 5.7.3, Figures 7.32.1 - 7.36**. The height of planting after 15 years is detailed on these figures and listed below:

- native tree planting 7-10m high;
- native understorey shrub planting 4-6m high; and
- native hedgerow planting 1.5m high (dependant on maintenance).

6.8.9 The assessment of residual effects on landscape during the operation of the Proposed Development in Sections A - H is detailed below.

Section A: Puriton Ridge

6.8.10 Photomontage **Figures 18.2.1 - 18.2.3, 18.2.6 and 18.2.8** at **Volume 5.18.2** illustrate site-specific mitigation at the proposed Bridgwater Tee CSE compounds on completion and after 15 years.

6.8.11 Residual effects on landscape character resulting from the proposed 400kV overhead line in Section A would remain the same (**moderate adverse** significance) as anticipated during the opening year of the proposed 400kV overhead line.

6.8.12 Landscape mitigation planting associated with the proposed Bridgwater Tee CSE compounds would mature and provide more effective screening of these new structures reducing their influence in the landscape. Residual landscape effects in Section A would reduce from being **minor adverse** significance at the opening year, to **minor adverse to neutral** significance at year 15.

Section B: Somerset Levels and Moors South

6.8.13 **Volume 5.18.2, Figures 18.2.26 - 18.2.29 and 18.2.32 - 18.2.33** (Photomontages) illustrate site-specific mitigation at the proposed South of Mendip Hills CSE compound on completion and after 15 years.

6.8.14 On completion the proposed 400kV overhead line in Section B would result in **moderate adverse** significances of effect on the Somerset Levels and Moors landscape. This effect would remain the same after 15 years of operation of the proposed 400kV overhead line.

6.8.15 The introduction of the proposed South of Mendip Hills CSE compound into the landscape in the northern part of Section B would result in a **moderate to minor** significance of effect. This adverse effect would reduce as landscape mitigation planting surrounding the proposed CSE compound would mature, in addition to existing embankment planting adjacent to the compound site, and would provide effective screening of this new structure reducing its influence in the landscape. The residual effect of the proposed South of Mendip Hills CSE compound would reduce to being of **minor adverse** significance on landscape character.

6.8.16 The cables bridge option proposed over the River Axe would result in a **moderate to minor adverse** significance of effect on the landscape in the northern part of Section B. This adverse effect would reduce as landscape mitigation planting proposed adjacent to the cables bridge option, (in combination with mitigation planting proposed to the west and southwest of the cables bridge illustrated as part of the CSE compound mitigation proposals) would mature, and would provide filtering and screening of this new structure reducing its influence in the landscape. The residual effect of the cables bridge option on landscape character would reduce to being of **minor adverse** significance on landscape character.

6.8.17 The 400kV underground cables route in the northern part of Section B would result in a **neutral** significance of effect on landscape character as in-situ replacement hedgerow within the reinstated cables swathe would have matured after 15 years.

Section C: Mendip Hills AONB

6.8.18 The significance of residual effects of the proposed 400kV underground cables route on the Mendip Hills AONB landscape would be **neutral** as in-situ replacement hedgerow within the cables swathe would have matured after 15 years. Localised landscape effects of **minor adverse** significance would remain in the Mendip Hills AONB due to the presence of link box pillars at intervals along the proposed 400kV underground cables route and due to the removal of a limited number of trees within the underground cables swathe. The ongoing absence of the F Route would mean that the overall significance of effect would be **moderate beneficial**.

6.8.19 **Volume 5.18.2, Figures 18.2.54 - 18.2.60** (Photomontages) illustrate site-specific mitigation at the proposed South of Mendip Hills CSE compound on completion and after 15 years.

6.8.20 The magnitude of indirect landscape effects on the Mendip Hills AONB would reduce where tree, shrub and hedgerow planting would have matured to provide partial screening of the proposed cables bridge over the River Axe, and to provide a more robust screen to the lower parts of the proposed South of Mendip Hills CSE compound. However the significance of indirect landscape effects would remain as the upper part of the South of Mendip Hills CSE compound and the proposed 400kV overhead line would remain in views from and towards the Mendip Hills AONB across the Somerset Levels and Moors in Section B.

Section D: Somerset Levels and Moors North

6.8.21 Residual effects on landscape character resulting from the proposed 400kV overhead line in Section D would remain the same as anticipated immediately on completion of the proposed 400kV overhead line (**moderate adverse** magnitude and significance).

6.8.22 **Volume 5.18.2, Figures 18.2.1 - 18.2.3, 18.2.6 and 18.2.8** (Photomontages) illustrate site-specific mitigation at the proposed Sandford Substation on completion and after 15 years.

6.8.23 Landscape mitigation planting associated with the proposed substation north of Sandford would mature and provide effective screening of this new structure reducing its influence in the landscape. Site-specific landscape mitigation proposals would enhance and reinforce existing landscape character following the establishment of proposed orchards.

6.8.24 The significance of adverse effects on landscape character resulting from the proposed Sandford Substation in Section D would reduce from being **moderate adverse** significance in the short and medium-term, to **minor adverse** significance at year 15 due to the substantive amount of mitigation planting proposed as part of the detailed landscape mitigation proposals.

6.8.25 On completion the installation of proposed 400kV and 132kV underground cables would give rise to **minor adverse** significances of effect on the landscape in the southern part of Section D, within the setting of the AONB and in the northern part

of this Section. The significance of effect would reduce to **neutral** in the short-term as the landscape would quickly re-establish following reinstatement works.

6.8.26 The significance of residual effects on landscape character resulting from the proposed Towerhead Brook cables bridge crossing would be **minor adverse**, reducing from moderate to minor adverse in the short and medium-term. Proposed hedgerow and trees would have established replacing hedgerow and trees removed to accommodate the permanent bridge crossing and reducing the influence of this new structure in the surrounding area.

Section E: Tickenham Ridge

6.8.27 In Section E replacement hedgerow planting 'in-situ' to reinstate field boundaries across the route of the proposed 132kV underground cables (replacing the W Route) would have matured after 15 years and would be similar in scale to the hedgerows removed as part of the works.

6.8.28 Replacement tree planting 'in-situ' to replace trees lost across the construction access routes and working areas associated with the installation of 132kV underground cables and construction of the proposed 400kV overhead line would have established after 15 years and would be similar in scale to most trees removed as part of the works. Where replacement tree planting 'in-situ' would replace mature trees removed during the works these would take 25-30 years to mature and become similar in scale to mature trees removed.

6.8.29 In-situ replacement hedgerow (and tree) planting following construction of the proposed 400kV overhead line and installation of the 132kV underground cables would mature and provide some filtering and screening of the proposed 400kV overhead line. This planting would be limited to where it would not infringe electricity safety clearances, but would assist in reducing the influence of the proposed 400kV overhead line. However in-situ replacement planting would not result in a reduced significance of effect in Section E.

6.8.30 In Section E the significance of residual effects on landscape character resulting from the proposed 400kV overhead line on Tickenham Ridge would remain as (**moderate adverse** significance) as anticipated in the short and medium-term.

Section F: Portishead

6.8.31 Residual effects on landscape character resulting from the proposed 400kV overhead line (and the removal of the F Route and the W Route, and the installation of 132kV underground cables) across Clapton Moor on the preferred route (Option A) and on the alternative route (Option B) would remain the same (**moderate adverse** significance) as anticipated in the opening year of the Proposed Development in Section F.

6.8.32 Replacement hedgerow planting 'in-situ' to reinstate field boundaries across the route of the proposed 132kV underground cables (proposed to replace the W Route removed), and across the construction access routes and working areas associated with the installation of underground cables would have matured after 15 years and would be similar in scale to the hedgerows removed as part of the works.

6.8.33 Replacement hedgerow would provide some filtering and screening of the proposed 400kV overhead line on both the preferred route (Option A) and the alternative route (Option B). This planting would assist in reducing the influence of

the proposed 400kV overhead line in the landscape. However 'in-situ' replacement planting would not reduce the overall significance of effect in Section F.

Section G: Avonmouth

6.8.34 Residual effects on landscape character resulting from the proposed 400kV overhead line throughout Section G, (including on the preferred route (Option A) and on the alternative route (Option B) south of the River Avon), would remain the same as anticipated in the short and medium-term.

Section H: Hinkley Line Entries

6.8.35 **Volume 5.18.2, Figures 18.2.108 - 18.2.113** (Photomontages) illustrate landscape restoration proposals for the proposed Hinkley Point C Power Station site at the opening year and after 15 years.

6.8.36 After 15 years of operation of the proposed Hinkley Point C Power Station (committed development ID 96 discussed at section 6.4 of this chapter), and the associated landscape strategy, comprising new broad-leaved woodland on the slopes of new gently rolling hills, woodland would mature reducing the influence of the power station and proposed line entries in the local landscape in Section H.

6.8.37 However the residual effects on local landscape character resulting from the proposed line entries in Section H would remain as being of **minor adverse to neutral** significance in the long-term.

6.9 Cumulative Effects

6.9.1 The cumulative landscape assessment is provided at **Volume 5.17.1, section 17.3,** and assesses the potential cumulative effects on landscape character of the Proposed Development together with other major development proposals.

6.9.2 15 cumulative effects are predicted in relation to landscape. These include four significant potential cumulative effects on the landscape in Section B, one relates to the effect of the possible Huntspill Energy Park (ID 16) on Woolavington Level. The other three relate to the possible effect of 13 wind turbines on landscape character with four proposed east of West Huntspill (ID 24), five across Woolavington Level (ID 22) and four south of Rooks Bridge (ID 25). Landscape effects would be experienced in combination with the proposed 400kV overhead line running across the Somerset Levels and Moors in Section B and across Puriton Ridge in the south in Section A. The potential residual cumulative significance of effect on landscape character in Section B (direct effect) and Section A (indirect effect) would be **major adverse** in certain areas near to the developments, although the greater source of effect on landscape would be the wind turbines at proposed wind farms. This is due to the anticipated major alteration to characteristics in the existing landscape.

6.9.3 Seven potentially significant cumulative landscape effects are predicted in Section D. Four relate to the effect of the possible photovoltaic parks at Banwell (ID 32), Congresbury (ID 38), and at (ID 42) and (ID 43) south of Hewish, where landscape effects would arise as a result of these developments and the proposed 400kV overhead line being introduced into the Moors landscape south of Hewish. The other three relate to the possible landscape effect of a new industrial unit and wind

turbine (ID 44) on the western edge of Yatton, a mixed use development (ID 46) to the northern edge of Yatton and a mixed use development (ID 47) on the north western edge of Nailsea. The seven possible projects are close to the Proposed Development and landscape effects would be experienced in combination with the proposed 400kV overhead line. The predicted potential residual cumulative significance of effect on landscape character in Section D would be no greater than **moderate adverse**.

6.9.4 Cumulative effects on landscape would arise in Section G from the Orta solar panel effects on landscape would arise in Section G from the Orta solar panel development with a potential residual cumulative effect no greater than **moderate adverse.** The Scottish Power Avon Power Station, Seabank 3 CCGT Power Station and Severnside area development (ID 79 , 80 and 81) where potential landscape effects are predicted in combination with the proposed 400kV overhead line. The predicted potential residual cumulative effect on landscape character would be **major adverse** for part of the Severnside area development (ID 81) The greater source of effect would be the Severnside area development. For the remainder of the sites the significance of effect would be no greater than **moderate adverse.**

6.9.5 One cumulative effect would arise from the Hinkley Point C Nuclear Power Station in Section H with a potential cumulative effect of **major adverse** during construction (construction of the Hinkley Point C Nuclear Power Station is anticipated to take 9 years). Effects on landscape character would reduce during the operational phase and it is predicted that potential residual cumulative effect would be **minor adverse.** The greater source of effect would be the Hinkley Point C Nuclear Power Station.

6.9.6 The predicted effects on the Proposed Development cumulatively with other developments would not give rise to a greater significance of adverse effect than that caused by the other developments alone, with the exception of the solar panel developments. The significance of adverse effects of the solar panel developments would be **minor adverse**, however the effects arising from the Proposed Development would be **moderate adverse**. The effects of the Proposed Development with the solar farms cumulatively would be **moderate adverse** with the Proposed Development giving rise to greater effects than the solar farms.

6.9.7 With reference to paragraph 7.28 of the Guidelines for Landscape and Visual Impact Assessment 3rd Edition, the Proposed Development would not comprise a ‘tipping point’ which would give rise to greater significance of adverse effects on the landscape cumulatively with other projects

6.10 Conclusions

6.10.1 This part of the chapter summarises the residual effects anticipated on landscape character in Sections A - H during the proposed construction, operation and decommissioning of the Proposed Development. Operational effects of the Proposed Development in the short and medium-term (at the opening year until year 15), are assessed at section 6.5 of this chapter.

6.10.2 Residual operational effects at year 15 onwards (in the long-term) are assessed at section 6.8. Residual landscape effects predicted at year 15 take account of the

effect of established site-specific landscape mitigation proposals and in-situ replacement planting discussed at sections 6.7 above.

6.10.3 The significance of predicted residual effects on landscape character across Sections A to H during the construction and the long-term operation (after 15 years) of the Proposed Development are presented in **Table 6.34** below.

Table 6.34 Summary of the Significance of Residual Effects on Landscape during the Construction and the Long-Term Operation of the Proposed Development

Component of the Proposed Development	**Significance of Residual Effect during Construction (short-term)**	**Significance of Residual Effect during Operation (long-term)**
SECTION A		
Removal of the F Route Modifications at Bridgwater Substation	**Minor adverse**	**Minor beneficial**
Proposed 400kV overhead line on Horsey Level	**Moderate adverse**	**Moderate adverse**
Proposed Bridgwater Tee CSE compounds Proposed 400kV underground cables	**Moderate adverse** (in combination with proposed 400kV overhead line works)	**Minor adverse to neutral** **Neutral**
Proposed 400kV overhead line on Puriton Ridge	**Moderate adverse**	**Moderate adverse**
SECTION B		
Removal of the F Route (where the proposed 400kV overhead line deviates from the F Route)	**Minor adverse**	**Minor beneficial**
Proposed 400kV overhead line (including removal of the F Route where the proposed 400kV overhead line runs along a similar alignment to the F Route)	**Moderate adverse** reducing to **minor adverse** and **neutral** with distance	**Moderate adverse** reducing to **minor adverse** and **neutral** with distance

Component of the Proposed Development	Significance of Residual Effect during Construction (short-term)	Significance of Residual Effect during Operation (long-term)
Proposed South of Mendip Hills CSE compound	**Moderate adverse**	**Minor adverse**
Proposed 400kV underground cables in the northern part of Section B	**Moderate adverse**	**Neutral** (and localised **minor adverse** effects)
Proposed River Axe cables bridge option	**Moderate adverse** (in combination with underground cable installation works)	**Minor adverse**
Overall effect of the Proposed Development in the northern most part of Section B	**Moderate adverse**	**Moderate to minor adverse**
SECTION C		
Removal of the F Route	**Moderate adverse** (in combination with proposed underground cable works)	**Moderate beneficial**
Proposed 400kV underground cables	**Moderate adverse**	**Neutral** (and localised **minor adverse** effects)
Proposed Development in the setting of the Mendip Hills AONB in Section B	**Minor adverse** to **neutral** (indirect)	**Minor adverse** or **neutral** (indirect)
Proposed Development in the setting of the Mendip Hills AONB in Section D	**Minor adverse** or **neutral** (indirect)	**Minor adverse** to **neutral** (indirect)
Overall landscape effects of the Proposed Development on the Mendip Hills AONB	**Moderate adverse**	**Moderate beneficial**
SECTION D		
Proposed 400kV underground cables	**Moderate adverse**	**Neutral** (with localised **minor adverse** effects)

Component of the Proposed Development	Significance of Residual Effect during Construction (short-term)	Significance of Residual Effect during Operation (long-term)
Proposed bridge crossing Towerhead Brook and semi-permanent access road	**Moderate adverse** (in combination with underground cable works)	**Minor adverse**
Removal of the F Route; the western part of the N Route; and the eastern part of the AT Route	**Minor adverse**	**Minor beneficial**
Proposed Sandford Substation	**Moderate adverse**	**Minor adverse**
Proposed 132kV connections between the N Route and the AT Route to Sandford Substation	**Minor adverse**	**Minor adverse**
Proposed 400kV overhead line; and removal of the F Route; and 132kV underground cables and removal of the W Route in the northern part of Section D west and northwest of Nailsea	**Moderate adverse**	**Moderate adverse**
Modifications to the W Route southwest of Nailsea; and 132kV underground cables	**Minor adverse**	**Minor beneficial** (with minor adverse effects along the cables swathe in the short-term until the reinstated and reseeded cables swathe becomes established, reducing to **neutral**)
Proposed 132kV underground cables replacing the W Route removed, west and north of Nailsea	**Moderate adverse** (in combination with proposed 400kV overhead line works and removal of the F Route)	**Neutral** ((in isolation of the proposed 400kV overhead line)

Component of the Proposed Development	Significance of Residual Effect during Construction (short-term)	Significance of Residual Effect during Operation (long-term)
Proposed works at Churchill Substation	**Minor adverse**	**Minor adverse to neutral**
SECTION E		
Proposed 400kV overhead line; and removal of the F Route and the W Route	**Moderate adverse**	**Moderate adverse**
Proposed 132kV underground cables	**Minor adverse**	**Neutral**
SECTION F		
Preferred route (Option A)		
Proposed 400kV overhead line on the preferred route	**Moderate adverse**	**Moderate adverse**
Removal of the F Route across Clapton Moor	**Minor adverse**	**Minor beneficial**
Proposed 132kV underground cables; and removal of the W Route across Clapton Moor	**Moderate adverse**	**Minor beneficial**
Removal of the W Route; installation of proposed 132kV underground cables across Clapton Moor and Portbury Wharf Nature Reserve; and removal of the F Route across the Nature Reserve	**Moderate adverse**	**Moderate beneficial** **Neutral** (across the 132kV cables swathe)
Removal of the G Route	**Minor adverse**	**Minor beneficial**
Proposed modifications at Portishead Substation	**Minor adverse**	**Minor beneficial to neutral**
Alternative route (Option B)		
Removal of the F Route across Clapton Moor	**Minor adverse**	**Minor beneficial**

Component of the Proposed Development	Significance of Residual Effect during Construction (short-term)	Significance of Residual Effect during Operation (long-term)
Proposed 400kV overhead line; proposed 132kV underground cables; removal of the W Route across Clapton Moor and Portbury Wharf Nature Reserve; removal of the F Route, G Route; and part of the BW Route at Portbury Wharf Nature	**Moderate adverse** (with a **minor adverse** effect across the underground cables swathe)	**Moderate adverse** (with a **minor adverse** effect across the underground cables swathe reducing to **neutral** in the short and medium-term)
Removal of part of the BW Route, proposed 132kV underground cables	**Minor adverse**	**Minor beneficial**
Proposed modifications at Portishead Substation	**Minor adverse**	**Minor beneficial to neutral**
SECTION G		
South of the River Avon		
Preferred route (Option A)		
Proposed 400kV overhead line on the preferred route (Option A) including 132kV overhead line and underground cable works on the G Route	**Minor adverse**	**Minor adverse**
Removal of the G Route across The Royal Portbury Docks	**Minor adverse to neutral**	**Minor beneficial to neutral**
Alternative route (Option B)		
Proposed 400kV overhead line on the alternative route (Option B); and removal of the G Route	**Minor adverse**	**Minor adverse**
Crossing the River Avon and North of the River Avon		
Proposed 400kV overhead line crossing the River Avon; deviating from the G Route around the settlement of Avonmouth	**Minor adverse**	**Minor adverse**
Removal of the G Route passing over Avonmouth towards Avonmouth Substation	**Minor adverse**	**Minor beneficial**

Component of the Proposed Development	Significance of Residual Effect during Construction (short-term)	Significance of Residual Effect during Operation (long-term)
132kV underground cables between Avonmouth Substation and a new CSEPP on the G Route	**Minor adverse**	**Neutral**
Proposed 400kV overhead line and removal of the G Route northeast of Avonmouth Substation towards the railway line	**Minor adverse**	**Minor adverse**
Proposed 400kV overhead line across Hallen Marsh north of the railway line	**Minor to moderate adverse**	**Minor to moderate adverse**
Proposed 400kV overhead line running northwest towards Seabank Substation; and removal of line entries into Avonmouth Substation	**Minor adverse**	**Minor adverse**
132kV underground cable entries into Seabank Substation	**Minor adverse**	**Neutral**
Modifications at Seabank Substation	**Minor adverse**	**Neutral**
SECTION H		
Hinkley Line Entries	**Minor adverse**	**Minor adverse to neutral**

Residual Effects on Landscape Character during the Construction of the Proposed Development

6.10.4 Residual construction effects of the Proposed Development on landscape character take account of construction mitigation measures referred to in section 6.7 of this chapter and detailed in the Draft CEMP at **Volume 5.26.1**. The CEMP will be subject of a Requirement in the DCO. Construction mitigation measures include, for example, the use of appropriate tree, hedgerow and soil protection measures during construction, and steel mesh fencing fitted with olive green tarpaulin around and along some boundaries of compounds and some working areas, in addition to temporary topsoil stockpile screening in places.

6.10.5 The short-term landscape effects arising from construction activity would be temporary and reversible as construction works would cease, land would be reinstated, and in-situ replacement hedgerow (and in places trees) planted as described in the AIA at **Volume 5.21.1**, **section 9.2** and referred to in section 6.7 of this chapter.

6.10.6 Residual construction effects of the Proposed Development identified in **Table 6.34** above are summarised below. The following summary first considers the assessment of effects on the nationally designated Mendip Hills AONB landscape

within the project study area, and in the wider landscape. An overview follows summarising the effects of the Proposed Development on the landscape across the rest of the project study area.

Assessment of Residual Effects on Designated Landscapes during Construction

6.10.7 The western part of the Mendip Hills AONB in Section C, has a high sensitivity to the installation of proposed 400kV underground cables, in combination with the removal of the F Route.

6.10.8 The greatest adverse residual effects on landscape character during construction would result from the noticeable linear swathe of land used for the proposed underground cables and temporary stone haul road, and proposed working areas across farmland in the Lox Yeo valley. Construction activities at cable jointing bays (including 24/7 lighting) would be under cover, minimising disturbance in the surrounding landscape.

6.10.9 Temporary construction compounds in two locations along the cables swathe would also be a notable change to the landscape pattern of the river valley, particularly noticeable in close proximity and when seen from higher ground. Construction operations and activity would introduce movement and a clustering of vehicles and machines that typically are not associated with a rural farmed landscape.

6.10.10 The proposed cables installation would disrupt the field pattern across farmland within part of the Lox Yeo Valley, as there would be some unavoidable loss of hedgerows and trees within the underground cables swathe. Tree and hedgerow loss would be minimised through the reduction of the working width of the cables swathe at hedgerow field boundaries, and HDD would be undertaken to avoid tree loss where the cables swathe crosses the Lox Yeo River. HDD is proposed where the cables route would cross Webbington Road and Castle Hill; however open cut trenches (with associated hedgerow removal) is the preferred crossing option in these locations.

6.10.11 Tree loss to accommodate proposed 400kV underground cables and associated construction access in Section C is recorded in the AIA at **Volume 5.21.1, section 7.9** as being relatively low. Temporary physical protection measures would be implemented for retained trees and hedgerow, including temporary ground protection, as discussed in the AIA at **Volume 5.21.1, section 8.3**.

6.10.12 The magnitude of residual effects on landscape resulting from (permanent) tree clearance in Section C would be negligible, as the change to landscape character would be barely perceptible due to the generally scattered nature of trees across the landscape. The significance of this residual effect would be **neutral**.

6.10.13 Following the installation of proposed underground cables, cable trenches would be backfilled, the temporary haul road and access tracks would be removed and stockpiled topsoil and subsoil would be replaced and reseeded. To ensure the successful reinstatement of the cables swathe, working areas and compounds, and the establishment and growth of grass and replacement hedgerow, best practice soil management methods would be followed. These are identified at **Volume 5.3.2, Appendix 3G**.

6.10.14 Following the reinstatement of cable trenches and working areas, removed hedgerow would be replanted in-situ along affected field boundaries. Adverse residual effects on field boundary hedgerow would therefore be temporary.

6.10.15 To further minimise landscape residual effects on this designated landscape (and residual effects on the historic environment and biodiversity), the planting of one of four 'species specific' planting mixtures, detailed in the AIA at **Volume 5.21.1**, **Tables 9.4 - 9.7** will be used. Replacement hedgerow planting will be undertaken in the first planting season following completion and would be a Requirement of the DCO, if consent is approved.

6.10.16 The designated landscape in Section C has a high sensitivity to the proposed installation of 400kV underground cables, and would experience a moderate adverse magnitude of residual effect. Construction works would result in a great scale of change to landscape character across low-lying valley farmland for the short-term, and a partial (and temporary) alteration to the rural landscape and to field boundary hedgerow affected. The significance of the residual effect on landscape character and landscape features would be **moderate adverse** for the short-term.

6.10.17 Construction activities to dismantle the F Route would result in a moderate adverse magnitude of residual effect, most noticeable on the landscape immediately adjacent to the working area and from higher ground. Short-term residual effects on landscape character resulting from the activities of removal would be temporary and of **moderate adverse** significance.

6.10.18 From Crook Peak, Loxton Hill and Bleadon Hill construction works proposed on the Somerset Levels and Moors to the south within the setting of the Mendip Hills would be visible (to varying extents) and would include the installation of proposed 400kV underground cables, construction of the proposed cables bridge option over the River Axe, construction of the proposed 400kV overhead line and South of Mendip Hills CSE compound, and removal of the F Route.

6.10.19 The installation of the proposed 400kV underground cables and semi-permanent access road to the north of the Mendip Hills AONB, running across valley farmland on lower ground towards the proposed Sandford Substation, and the construction of the substation and proposed 400kV and 132kV overhead lines (and installation of 132kV underground cables) north of Sandford would result in a low scale of change or barely perceptible scale of change on landscape character, experienced from higher ground in this AONB.

6.10.20 In the short-term, the construction of the Proposed Development to the south, and to the north of the Mendip Hills AONB would result in localised indirect residual effects on higher ground within this designated landscape ranging from **minor adverse** to **neutral** significance.

6.10.21 Given the moderate adverse magnitude of residual effects predicted within this highly sensitive AONB landscape, the overall significance of temporary residual effects during construction would be **moderate adverse**.

6.10.22 Construction activity on Puriton Ridge and on the southern edge of Tickenham Ridge would have **no residual effect** on the landscape character of the Mendip Hills AONB due to the distance of more than 10km between these ridge landscapes and the designated landscape.

6.10.23 Construction of the proposed 400kV overhead line across Horsey Level and on Puriton Ridge would have **no residual effect** on the Quantock Hills AONB due to the distance of approximately 9.5km between the construction of the proposed 400kV overhead line on Horsey Level (and the removal of the F Route) and the designated landscape.

6.10.24 Construction activity for the proposed Hinkley Line Entries in the context of the existing Hinkley Point C Power Station complex and the proposed Hinkley Point C Power Station would have a **neutral** significance of residual effect or **no residual landscape effect** on the Quantock Hills AONB, due to the distance of approximately 5km between the proposed Hinkley Line Entries and this designated landscape at its closest point.

Assessment of Residual Effects on Landscape Character within Sections A - H during Construction

6.10.25 The landscapes, within which the Proposed Development would be introduced, are generally rural, excluding part of Section F and Section G, which includes The Royal Portbury Docks and industry at Avonmouth.

6.10.26 Where the landscape comprises arable farmland, across parts of the Levels and Moors, (across the Lox Yeo Valley in the Mendip Hills AONB discussed above), and across part of Puriton Ridge and Tickenham Ridge, and on rising ground south of Wick Moor at Hinkley Point, machinery operations typically are associated with the preparation of fields for crops and on-going spraying and aftercare of crops. Overhead line construction, construction of site-specific electrical infrastructure, and underground cables installation would require machinery including for example, cranes and equipment associated with HDD and the stringing of conductors. However some machinery and equipment required for the construction of the Proposed Development would be different to those typically noted in the landscape as part of regular farming practice. The grouping of operations around working areas and concentrations of machinery would also introduce increased levels of activity across the landscape. This would be the same in the landscapes across the entire project study area.

6.10.27 Throughout the project study area (excluding the Mendip Hills AONB discussed above), the low-lying flat landscapes and ridge landscapes would experience temporary adverse residual effects as a result of the construction of a component or a number of components of the Proposed Development described at **Volume 5.3.1** and assessed as part of this landscape assessment.

6.10.28 Along the route of the proposed 400kV overhead line and in the context of the F Route and the G Route to be removed, construction works would also comprise the removal of sections of other overhead line in the vicinity of the proposed 400kV overhead line and Hinkley line entries, the installation of 400kV and or 132kV underground cables, and the construction of site-specific infrastructure including CSE compounds, Sandford Substation, the cables bridge option over the River Axe and the cables bridge over the Towerhead Brook, along with the semi-permanent road to the proposed Sandford Substation.

6.10.29 Works associated with the construction of Proposed Development also assessed as part of this landscape assessment, would include temporary access roads,

highway works, temporary construction compounds, scaffolding, works sites and ancillary works.

6.10.30 Construction compounds, working areas and construction activity typically would be introduced into the landscape as close to the site of the proposed works as possible, minimising the geographical extent of construction activity in the landscape. Access routes generally would be along existing tracks and along field boundaries minimising disturbance to farmland and field boundaries.

6.10.31 Construction of the Proposed Development would result in adverse residual effects on trees and hedgerows along field boundaries, watercourses and roads as identified in the AIA at **Volume 5.21.1**, and illustrated at **Volume 5.21.3, Figures 21.2 and 21.3**. Trees and hedgerow would be lost to allow construction access and in some places would remain absent or cut low to achieve the electrical safety clearances required during the operation of the proposed 400kV overhead line.

6.10.32 Hedgerow and trees are components of the landscape character to varying degrees throughout Sections A to H as identified in section 6.4 of this chapter. Woodland is also a component of the landscape character of Puriton Ridge and Tickenham Ridge. Woodland, tree, and hedgerow losses have been avoided where possible. Where losses would occur, these would generally result in a minor alteration to these landscape features and would have no greater than a **minor adverse** significance of residual effects on landscape character. Removed hedgerow would also be replanted in-situ restoring field boundaries for the long-term.

6.10.33 Throughout Sections A to H, field boundaries comprising hedgerow and trees, would provide some filtering and partial screening, which would help minimise the influence of construction activity for the Proposed Development in the landscape.

6.10.34 The construction of the proposed 400kV overhead line would have a residual effect of **moderate adverse** significance on the character of Puriton Ridge and the adjacent Somerset Levels and Moors landscape to the south and north. The greatest residual effect, also of **moderate adverse** significance, would be where the proposed 400kV overhead line would cross the Puriton Ridge landscape. Construction of the proposed Bridgwater Tee CSE compounds (adjacent to the VQ Route, temporary overhead line and construction of the proposed 400kV overhead line) and associated construction compound, haul road and working areas proposed on Horsey Level would result in a temporary residual effect on landscape character of **moderate adverse** significance for the short-term. The installation of the proposed 400kV underground cables between Bridgwater Tee CSE compounds would have a localised **minor adverse** significance of residual effect on the landscape, and would contribute to the **moderate adverse** residual effect arising from the construction of the proposed CSE compounds and the adjacent 400kV overhead line works.

6.10.35 Construction of the proposed 400kV overhead line would generally have a **moderate adverse** significance of residual effect on the Somerset Levels and Moors landscape to the south and north of the Mendip Hills AONB, which has a medium sensitivity to the construction of the proposed overhead line. Construction of the proposed 400kV overhead line would have a greater adverse residual effect, although residual effects would also be of **moderate adverse** significance where:

- the proposed 400kV overhead line takes an alternative alignment to the F Route across the Somerset Levels and Moors south of the Mendip Hills, including where it crosses the linear settlement of Mark on a different alignment to the F Route;
- the proposed 400kV overhead line would change direction between Lampley Road and Kenn Road; and
- the proposed 400kV overhead line deviates from the route of the F Route across Nailsea Moor.

6.10.36 Works to dismantle the F Route (and other existing 132kV overhead lines proposed to be removed), would result in localised adverse residual effects of **minor adverse** significance, where the construction of the proposed 400kV overhead line would be in a different location, for example, on the top and southern slopes of Puriton Ridge and across the Levels and Moors landscape to the south; and across Clapton Moor separate from the W Route.

6.10.37 South of the Mendip Hills, construction activity relating to the proposed 400kV overhead line, and the proposed CSE compound including two compounds north of the A38, and one adjacent to the site of the proposed CSE compound; and the installation of proposed 400kV underground cables including the River Axe cables bridge option, a temporary bridge crossing, and HDD works north and south of the Old Lox Yeo, would result in temporary residual effects of **moderate adverse** significance on the Somerset Levels within the setting of the Mendip Hills AONB.

6.10.38 Construction activity for the proposed Sandford Substation and proposed 400kV and 132kV overhead line and underground cable works in the vicinity of the substation site, would introduce movement, equipment and assembling of electrical infrastructure into a concentrated area in valley farmland within the setting of the Mendip Hills AONB, characterised locally by orchards and fields with mature hedgerow and trees. Mature trees and hedgerow would provide some screening of proposed works reducing the influence of construction activity beyond the proposed working areas and compounds. The residual effect of the construction works at the proposed substation site and in adjacent working areas and compounds would be temporary, localised and of **moderate adverse** significance, due to the great scale of change predicted on landscape character for the short-term.

6.10.39 The construction of the proposed 400kV overhead line in combination with the installation of proposed 132kV underground cables and the removal of the W Route and the F Route would have an overall **moderate adverse** significance of residual effect on Tickenham Ridge. On the top and northern slopes of Tickenham Ridge proposed 400kV and 132kV overhead line and underground cable works would result in a greater **moderate adverse** significance of residual effect, due to the visual prominence of this landscape feature, and construction works being seen against the sky. Within the southern part of Tickenham Ridge, north of Nailsea Moor, wooded rising ground partly encloses construction works on locally lower ground up Tickenham Ridge, reducing construction residual effects on the wider landscape. The installation of 132kV underground cables to replace the W Route would have a localised **minor adverse** significance of residual effect on the

landscape, and would contribute to the **moderate adverse** residual effect arising from other construction activity proposed across Tickenham Ridge.

6.10.40 Across Clapton Moor and Portbury Wharf Nature Reserve, the installation of proposed 132kV underground cables and the dismantling of the W Route (and the F Route across the Nature Reserve), as part of Option A would result in a **moderate adverse** significance of residual effect on landscape character. The construction of the proposed 400kV overhead line on the preferred route (Option A) to the northern side of the M5 motorway would result in a **moderate adverse** significance of residual effect on the landscape influenced by the motorway. The removal of the F Route, and the G Route as part of Option A, would result in a localised temporary **minor adverse** significance of residual effect on landscape character for the short-term.

6.10.41 If the alternative route (Option B) is constructed, the construction of the proposed 400kV overhead line, the installation of proposed 132kV underground cables, and the dismantling of the W Route would result in a **moderate adverse** significance of residual effect across Clapton Moor. Construction works across Portbury Wharf Nature Reserve including dismantling of the G Route and part of the BW Route and the installation of 132kV underground cables, would also result in a **moderate adverse** significance of residual effect across the majority of the Nature Reserve.

6.10.42 The construction of a new 400kV overhead line on the preferred route (Option A) would result in a temporary **minor adverse** significance of residual effect along the southern edge of The Royal Portbury Dock, and would result in a temporary residual effect of **minor adverse to neutral** significance where the G Route would be dismantled within The Royal Portbury Dock further north.

6.10.43 The dismantling of the G Route and the construction of the proposed 400kV overhead line on the alternative route (Option B) south of the River Avon would have result in a residual effect of **minor adverse** significance on The Royal Portbury Dock.

6.10.44 The G Route crossing the River Avon on two tall pylons would be dismantled and the proposed 400kV overhead line construction over the River Avon to the west resulting in a **minor adverse** significance of residual effect. The dismantling of the G Route passing over part of the residential area of Avonmouth would result in a temporary and localised **minor adverse** significance of residual effect on landscape character in the immediate vicinity of this overhead line.

6.10.45 The construction of the proposed 400kV overhead line across The Royal Portbury Dock and across Avonmouth, (including where the proposed 400kV overhead line would deviate from the G Route); and the installation of proposed 132kV underground cables to replace a section of the BW Route (as part of Option A) and a section of the G Route (where the proposed 400kV overhead line would run across or close to these existing overhead lines) generally would have a **minor adverse** significance of residual effect on the landscape with residual effects reducing to **neutral** in the wider Severn and Avon Vales, and Bristol, Avon Valleys and Ridges landscape. Adverse residual effects of the proposed 400kV overhead line would be of **minor to moderate adverse** significance across farmland at Hallen Marsh in the northeast of Section G to the east of industry.

6.10.46 Construction of the proposed Hinkley Line Entries would have a **minor adverse** significance of residual effect on Wick Moor and part of the Eastern Lowlands landscape. The construction of the proposed Hinkley Point C Power Station and the presence of the Hinkley Point Power Station Complex and existing 400kV overhead lines reduce the sensitivity of this landscape to proposed overhead line modifications at Hinkley Point.

Residual Effects on Landscape Character during the Long-Term Operation of the Proposed Development

6.10.47 The residual operational effects of the Proposed Development (15 years after completion of the Proposed Development) on the landscape as a whole (within Sections A to H) are identified in **Table 6.35** above and are summarised below.

6.10.48 This summary first considers the assessment of residual effects of the Proposed Development on the nationally designated Mendip Hills AONB landscape within the project study, and in the wider landscape. The assessment of residual effects on the special qualities of the Mendip Hills AONB is also summarised. An overview follows summarising the residual effects of the Proposed Development on the landscape across the generally rural and low-lying Somerset Levels and Moors; across the ridges that run east-west dividing the lower lying landscape; across the dockland and industrial landscape at Portishead and Avonmouth; and across the low-lying Wick Moor and undulating farmland surrounding the existing Hinkley Point Power Station Complex (and the site of the proposed Hinkley Point C Power Station) on the West Somerset coast.

Assessment of Residual Operational Effects on Designated Landscapes

6.10.49 The western part of the Mendip Hills AONB is in Section C, and is a nationally designated landscape with a high sensitivity to a new 400kV overhead line. The use of proposed 400kV underground cables instead of a new 400kV overhead line is 'embedded mitigation'.

6.10.50 Field boundary hedgerows removed within the proposed underground cables would be replanted following the reinstatement of the underground cable trenches, and tree loss would be relatively low. There would be localised **minor adverse** significances of residual effects on landscape character during the operation of proposed 400kV underground cables resulting from small scale 'link box pillars' at intervals along the cable route. The operation of the proposed 400kV underground cables and the absence the F Route in the long-term would result in a **moderate beneficial** significance of residual effect on the Mendip Hills AONB landscape in Section C.

6.10.51 The proposed South of Mendip Hills CSE compound, River Axe cables bridge option and proposed 400kV overhead line to the south and Sandford Substation and proposed 400kV and 132kV overhead lines to the north of the Mendip Hills AONB would give rise to localised indirect **minor adverse** or **neutral** significances of residual effects on landscape character experienced from higher ground within the Mendip Hills.

6.10.52 The overall significance of residual effect of the Proposed Development on the landscape character of the Mendip Hills AONB in Section C would be **moderate beneficial**.

6.10.53 The underground cables route proposed in the northern part of the Somerset Levels and Moors south of the Mendip Hills AONB, and the southern part of the Somerset Moors north of the Mendip Hills AONB would avoid the long term adverse residual effects on landscape within the immediate setting of this part of the Mendip Hills AONB associated with a new 400kV overhead line. The cables installation would have a beneficial residual effect on the setting of this AONB due to the removal of the F Route in this location. Trees would not be allowed to grow above the new 400kV underground cables to replace any lost during the installation of the proposed cables; however the absence of trees on the cables route would not give rise to significant adverse residual effects on landscape character.

6.10.54 The proposed 400kV overhead line in the northern part of the Somerset Levels and Moors south of the Mendip Hills AONB would have a direct **moderate adverse** significance of residual effect on part of the wider setting of the Mendip Hills AONB. Adverse residual effects would reduce with distance. The South of Mendip Hills CSE compound proposed in a field adjacent to the M5 motorway would result in a direct residual effect of **minor adverse** significance. Within fifteen years, landscape mitigation planting surrounding the proposed South of Mendip Hills CSE compound and along local field boundaries and the M5 motorway would have established, in addition to proposed embankment planting adjacent to the compound site, and would provide effective low level screening of this new structure reducing its influence in the landscape. The proposed River Axe cables bridge option over the River Axe would also result in a direct residual effect on the part of the wider setting of the Mendip Hills AONB of **minor adverse** significance. Landscape mitigation planting along the River Axe would have become established and would provide effective partial screening of the cables bridge, reducing the influence of this new structure in the rural landscape within the setting of the Mendip Hills AONB, influenced by the M5 motorway and associated bridges to the west.

6.10.55 The bridge proposed over Towerhead Brook would have a direct residual effect of **minor adverse** significance on a small part of the wider setting of the Mendip Hills AONB.

6.10.56 Sandford Substation proposed on the lower lying Somerset Moors further north of the Mendip Hills AONB, would have a direct **minor adverse** significance of residual effect on part of the wider setting of the Mendip Hills AONB. Within fifteen years, extensive landscape mitigation planting surrounding the proposed Sandford Substation would have established, and would provide effective low level screening of new electrical infrastructure. The landscape mitigation scheme would also introduce a significant orchard to the wider substation site, which would enhance and reinforce landscape character as well as minimise the influence of the substation in the wider landscape. The Proposed Development would also result in improvements to the route and experience of the Strawberry Line between Sandford and this important cycleway and footpath route on the opposite side of Drove Way

6.10.57 The proposed 400kV overhead line, on a similar route to the F Route removed, running northeast of Sandford Substation would result in a direct adverse effect of **moderate adverse** significance on the Somerset Moors in part of the wider setting of the Mendip Hills AONB.

6.10.58 The proposed 400kV overhead line on Puriton Ridge and Tickenham Ridge would have **no residual effect** on the landscape character of the Mendip Hills AONB due to the distance of more than 10km between these ridge landscapes and the designated landscape.

6.10.59 The proposed 400kV overhead line across Horsey Level and Puriton Ridge would have **no residual effect** on the Quantock Hills AONB due to the distance of approximately 9.5km between the proposed 400kV overhead line on Horsey Level and the designated landscape at its closest point.

6.10.60 The proposed Hinkley Line Entries in the context of the existing Hinkley Point C Power Station complex and the proposed Hinkley Point C Power Station would have **no residual effect** on the Quantock Hills AONB, due to the distance of approximately 5km between the proposed Hinkley Line Entries and this designated landscape at its closest point.

Effects on the Special Qualities of the Mendip Hills AONB

6.10.61 The Mendip Hills AONB is of national importance and the primary purpose of its designated under the 1949 National Parks and Access to the Countryside Act 1949 (the 1949 Act), is to conserve and enhance the natural beauty of the landscape.

6.10.62 As identified in the desk-based assessment provided in section 6.4 of this chapter, one of the special qualities of the Mendip Hills AONB stated in the current Mendip Hills AONB Management Plan 2009 to 2014 (Ref 6.6), refers to the 'far reaching seasonal views across the Severn Estuary to Wales and across the Somerset Levels to Glastonbury Tor and Hinkley Point'. The Management Plan 2014 to 2019 (Ref 6.7) refers to these views, but also refers to views towards the Mendip Hills from the Somerset Levels and Moors (and from Exmoor, Quantocks, and the Chew Valley) as being a special quality of the Mendip Hills AONB.

6.10.63 This landscape assessment (and the visual assessment provided at **Volume 5.7.1**) acknowledges that the setting of the Mendip Hills AONB, comprising the landscape from which the AONB can be seen and the landscape which can be seen from the AONB, is important to supporting the quality and character of the protected landscape itself.

6.10.64 The design of the Proposed Development has given careful consideration to the primary purpose of the AONB designation and the special qualities of the Mendip Hills, in particular the far reaching views across the Somerset Levels, and views towards the Mendip Hills from the Somerset Levels and Moors. For example, 400kV underground cables are proposed within the Mendip Hills AONB; measures to ensure the successful reinstatement of the 400kV cables swathe and the re-establishment of grassland and in-situ replacement hedgerow are proposed; and the proposed South of Mendip Hills CSE compound and Sandford Substation have been carefully sited further south and north of the AONB boundary, and would be supplemented with landscape mitigation proposals to reduce the visibility of this new electrical infrastructure in the setting of the Mendip Hills AONB, and when seen from the AONB.

6.10.65 Direct and indirect residual effects on landscape character in the Mendip Hills AONB and its setting during construction in the short-term, and the long-term operation of the Proposed Development are assessed in this landscape

assessment at section 6.8, and the significance of these residual effects are summarised above.

6.10.66 The assessment of visual effects resulting from the construction, operation and decommissioning of the Proposed Development in receptor views from the Mendip Hills in Section C, and in receptor views from the Somerset Level and Moors in Section B towards the Mendip Hills AONB is provided at **Volume 5.7.1, section 7.5** and **section 7.8,** and at **Volume 5.7.2, Appendix 7B and 7C**.

Assessment of Residual Operational Effects on Landscape Character throughout the Project Study Area

6.10.67 The land in which the Proposed Development would take place does not comprise one single landscape character area or recognised 'landscape unit'. There is no unifying characteristic or aspect of landscape which applies to the area in which the Proposed Development would occur. The Sections identified, in consultation with the relevant planning authorities and other consultees, are based on areas of landscape character which can be distinguished one from another. The assessment described above has considered all of the effects of the Proposed Development on the landscape of each Section of the project study area, including the effects of components in neighbouring Sections that would impinge on landscape character.

6.10.68 Notwithstanding, the Proposed Development in its entirety would bring about effects on landscape character in a part of southwest England. The proposed 400kV overhead line would result in direct adverse effects on landscape character within Sections A to B and Sections D to H, due to the introduction of a linear development (comprising conductors suspended from arms on supports at regular distances). Overall this would affect landscape character adversely by presenting a manufactured and functional form into rural and urban landscapes. In the majority of instances, the proposed 400kV overhead line would be introduced into a landscape where there is at least one existing overhead line. This means that the landscape character overall has a lower susceptibility to change from the Proposed Development than would arise as compared to landscapes where there are no overhead lines and electrical infrastructure. The greatest adverse residual effects would arise where the proposed 400kV overhead line runs across Puriton Ridge to the west of the F Route, and deviates across low-lying farmland away from the route of the F Route, which would be removed.

6.10.69 Removal of the F Route and part of the G Route, W Route and BW Route would bring beneficial effects where it occurred. In most instances this would be accompanied by the introduction of the proposed 400kV overhead line resulting in an overall adverse effect on landscape character. Where no new 400kV overhead line would be installed, because 400kV underground cables would be used or because the proposed overhead line would be installed along a different route to the F Route (and the W and G Routes in relation to the preferred route (Option A)), there would be an overall beneficial effect. The removal of the F Route for example, across the top and southern slopes of Puriton Ridge and across the Somerset Levels to the south, and the operation of the proposed 400kV overhead line to the west of the F Route would result in a **minor beneficial** effect on the landscape in the vicinity of the removed F Route.

6.10.70 The presence of existing overhead lines in the landscape reduces the susceptibility to change of this landscape from the Proposed Development, particularly as the F Route would be removed as part of the Proposed Development. Sections of the W Route, BW Route and G Route would be replaced with 132kV underground cables across the northern part of the project study area. In general where existing 132kV overhead lines are replaced with underground cables, the ground disturbed for the installation of 132kV cable routes would re-establish in the short-term minimising residual effects on landscape character and would likely result in a **minor adverse** or **neutral** significance of residual effect on landscape character local to proposed cable routes.

6.10.71 Across Nailsea Moor south of Tickenham Ridge the deviation of the proposed 400kV overhead line from the route of the F Route and the replacement of the W Route with 132kV underground cables would bring beneficial residual effects to the landscape in and adjacent to Nailsea. Across Tickenham Ridge and Clapton Moor the proposed removal of the F Route and the W Route (and the replacement of the W Route with 132kV underground cables) would result in a beneficial residual effect on the local landscape.

6.10.72 Higher ground within Sections A to H would generally provide backgrounding to the proposed 400kV and 132kV overhead line, which would assist in reducing its influence in the landscape. Backgrounding would be provided by:

- Puriton Ridge (including woodland) in the south and the more distant Quantock Hills AONB to the southwest;
- Puriton Ridge, Brent Knoll, and the Mendip Hills AONB where the 400kV overhead line would run across the flat Somerset Levels and Moors landscape between Puriton Ridge and the Mendip Hills AONB;
- the Mendip Hills, Cleeve Ridge and Tickenham Ridge where the 400kV overhead line would run across the flat low-lying Somerset Moors north of the Mendip Hills AONB;
- landform and woodland including Chummock Wood, Mogg's Wood and Prior's Wood on Tickenham Ridge;
- Portishead Ridge;
- higher ground and woodland to the east of Avonmouth, including Spaniorum Hill; and
- the existing Hinkley Point Power Station Complex (including woodland to the south and east within the power station site), the gently undulating landform surrounding the proposed Hinkley Line Entries, and the Quantock Hills AONB in the distance.

6.10.73 The uppermost parts of the T-pylons on the proposed 400kV overhead line are anticipated to protrude above the backdrop of these hills in places.

6.10.74 Trees and hedgerow would be lost along field boundaries, watercourses and roads (as identified in the AIA at **Volumes 5.21.1 - 5.21.3**), across construction working areas and to allow construction access, and in some places would remain absent

or cut low to achieve the electrical safety clearances required during operation of the new overhead line.

6.10.75 Hedgerow and trees are components of the landscape and contribute to landscape character to varying degrees throughout Sections A to H. Woodland is also a feature of Puriton Ridge and Tickenham Ridge landscapes. Where tree loss would occur, this would generally result in a minor alteration to this component of landscape character, and would have no greater than a **minor adverse** significance of residual effect on landscape. Removed hedgerow would be replanted in-situ restoring field boundaries for the long-term.

6.10.76 Throughout Sections A to H, field boundaries comprising hedgerow and trees would provide some filtering and partial screening which would help minimise the influence of the proposed 400kV overhead line, Bridgwater Tee and South of Mendip Hills CSE compounds and Sandford Substation in the local landscape.

6.10.77 The proposed 400kV overhead line would have a residual effect of **moderate adverse** significance on the character of Puriton Ridge and the adjacent Somerset Levels and Moors landscape to the south and north. The greatest result effect (also of **moderate adverse** significance) would be where the proposed 400kV overhead line would cross the Puriton Ridge landscape. The two Bridgwater Tee CSE compounds proposed on Horsey Level adjacent to the VQ Route and the proposed 400kV overhead line would result in a localised residual effect on landscape character of **minor adverse to neutral** significance as landscape mitigation planting matures and provides effective low level screening of the components of the Bridgwater Tee CSE compounds.

6.10.78 The proposed 400kV overhead line would generally have a **moderate adverse** significance of residual effect on the Somerset Levels and Moors landscape (to the south and north of the Mendip Hills AONB), which has local value, is generally in good condition and generally has a medium sensitivity to the Proposed Development. The proposed 400kV overhead line would have a greater adverse effect, although residual effects would remain of **moderate adverse** significance, where:

- the proposed 400kV overhead line takes an alternative alignment to the F Route, including across Huntspill Moor and farmland east of Cote and East Huntspill; across farmland south and north of Southwick Road, and Northwick Road; east of Vole; and west of Biddisham Lane;
- the proposed 400kV overhead line crosses the linear settlement of Mark on a different alignment to the F Route;
- the proposed 400kV overhead line would change direction between Lampley Road and Kenn Road; and
- the proposed 400kV overhead line deviates from the route of the F Route across Nailsea Moor.

6.10.79 The proposed Sandford Substation adjacent to Drove Way, and the new 132kV connection between the proposed substation and the AT Route, would result in adverse residual effects in the local landscape in the setting of the Mendip Hills AONB to the south. Mature trees and hedgerow on lower ground north of the

Mendip Hills AONB would assist in screening the proposed Sandford Substation, and new AT Route connection, and would help to reduce adverse residual effects. However adverse residual effects would arise as the proposed Sandford Substation would introduce a new built form into the landscape. After fifteen years of operation, the significance of adverse residual effects on landscape character would be **minor adverse** due to substantive amounts of mitigation planting proposed reducing the influence of Sandford Substation in the surrounding landscape.

6.10.80 The proposed 400kV overhead line would have an overall **moderate adverse** significance of residual effect on Tickenham Ridge. On the top and northern slopes of Tickenham Ridge the proposed 400kV overhead line would result in a greater **moderate adverse** significance of residual effect, due to the visual prominence of this landscape feature, the absence of woodland backgrounding on the higher ground, and a greater extent of the proposed 400kV overhead line using the T-pylon seen against the sky compared to the F and W Routes to be removed. Within the southern part of Tickenham Ridge, north of Nailsea Moor, wooded rising ground partly encloses the route of the proposed 400kV overhead line where it runs on locally lower ground up Tickenham Ridge, reducing effects on the wider landscape. The proposed replacement of the W Route with 132kV underground cables and the removal of the F Route as part of the Proposed Development would help to offset adverse residual effects on this landscape.

6.10.81 Across Clapton Moor and Portbury Wharf Nature Reserve, the F Route, the W Route and the G Route would be removed (and the W Route would be replaced with 132kV underground cables) whether the 400kV overhead line used either the preferred route (Option A) or the alternative route (Option B). The removal of the F Route, and the W Route and the introduction of the proposed 400kV overhead line on the preferred route (Option A) would result in a **moderate beneficial** significance of residual effect on the landscape in the vicinity of these 132kV overhead lines across Portbury Wharf Nature Reserve. The removal of the G Route as part of Option A would also result in a **minor beneficial** significance of residual effect on landscape character.

6.10.82 As part of both the preferred route (Option A), and the alternative route (Option B), the removal of the F Route where it runs across Clapton Moor on a more distant route to the west of the W Route would result in a low beneficial magnitude and **minor beneficial** significance of effect on landscape character.

6.10.83 If the alternative route (Option B) is used, the removal of the F Route, G Route and the W Route would avoid adverse residual effects that would otherwise occur if the proposed 400kV overhead line was built close to these 132kV overhead lines across Clapton Moor and Portbury Wharf. The BW Route would however remain in place, although the western part of this overhead line would be replaced with 132kV underground cables where the proposed 400kV overhead line on the alternative route (Option B) would cross this existing line.

6.10.84 Overall a new 400kV overhead line, on either the preferred route (Option A) or on the alternative route (Option B), would have a residual effect of **moderate adverse** significance on the landscape character of Clapton Moor, which has a medium sensitivity to the proposed 400kV overhead line.

6.10.85 A new 400kV overhead line on the preferred route (Option A) along the southern edge of The Royal Portbury Dock would result in a residual effect of minor adverse significance, and would result in a **minor beneficial to neutral** significance of residual effect on the landscape further north across part of The Royal Portbury Dock resulting from the removal of the G Route.

6.10.86 A new 400kV overhead line on the alternative route (Option B) south of the River Avon would have a residual effect of **minor adverse** significance on The Royal Portbury Dock.

6.10.87 The landscape at The Royal Portbury Dock and at Avonmouth has a low susceptibility to change from the proposed 400kV overhead line, due to landscape character being heavily influenced by dockland and industrial activity, by motorways including the elevated M5 over the River Avon, and by existing overhead lines. Seabank Power Station and the adjacent Seabank Substation, proposed to be extended as part of the Proposed Development, are to the north of Avonmouth near the Severn Estuary.

6.10.88 The G Route crossing the River Avon on two tall pylons would be replaced by the proposed 400kV overhead line, which would result in a **minor adverse** significance of residual effect. The removal of the G Route passing over part of the residential area of Avonmouth would result in a **minor beneficial** significance of residual effect on landscape character in the immediate vicinity of this overhead line.

6.10.89 The removal of a section of the G Route (and its replacement with 132kV underground cables) north of Avonmouth Substation would reduce the in combination adverse residual effects which would otherwise occur if the proposed 400kV overhead line was built roughly parallel to the G Route, (as well as the BW Route) northeast of Avonmouth Substation towards the disused railway. Following reinstatement and reestablishment of grassland across the proposed 132kV underground cables swathe in Avonmouth, the cables swathe would likely result in a **neutral** residual effect on landscape character local to proposed cable routes.

6.10.90 The proposed 400kV overhead line across Avonmouth would have a generally **minor adverse** significance of residual effect on the landscape with residual effects reducing to **neutral** in the wider Severn and Avon Vales, and Bristol, Avon Valleys and Ridges landscape. Adverse residual effects of the proposed 400kV overhead line would be of **minor adverse** significance close to residential areas in Avonmouth; and of **minor to moderate adverse** significance across farmland at Hallen Marsh in the northeast of Section G to the east of industry.

6.10.91 The proposed Hinkley Line Entries would have a **minor adverse to neutral** significance of residual effect on Wick Moor and part of the Eastern Lowland landscape which has a low sensitivity to the proposed line entries. The existing Hinkley Point Power Station Complex, existing 400kV overhead lines and the proposed Hinkley Point C Power Station reduce the sensitivity of this landscape from the proposed Hinkley Line Entries.

Residual Effects on Landscape Character during the Decommissioning of the Proposed Development

6.10.92 Throughout Sections A to H, the decommissioning of the Proposed Development would result in residual effects on landscape character ranging from **moderate**

adverse significance to **neutral** significance, similar to effects predicted during the construction stage of the Proposed Development

6.10.93 Following the reinstatement of proposed 400kV and 132kV underground cable swathes in the short-term and the reinstatement of in-situ replacement hedgerow, the residual effects of decommissioning proposed underground cables would be of **neutral** significance in the long-term. The removal of link box pillars along proposed 400kV underground cable routes would result in localised beneficial effects of **minor beneficial** significance.

6.10.94 Following decommissioning of the Proposed Development, residual effects on landscape character would be of **moderate beneficial** or **minor beneficial** significance. **Moderate beneficial** significances of residual effect would arise from the decommissioning of the proposed 400kV overhead line in Sections A to B, and in Sections D to F. **Minor beneficial** residual effects would result from the removal of the proposed 400kV overhead line in Section G increasing to **minor to moderate beneficial** where the proposed 400kV overhead line would run across Hallen Marsh in the northeast of Section G. The decommissioning of the proposed Hinkley Line Entries would result in a **minor beneficial to neutral** significance of residual effect on landscape character, in the context of the existing Hinkley Point Power Station Complex and the proposed Hinkley Point C Power Station.

6.10.95 The removal of proposed 132kV overhead lines connecting into Sandford Substation, and the decommissioning of site-specific infrastructure including CSE compounds, Sandford Substation, the proposed River Axe cables bridge option, and the Towerhead Brook cables bridge; and the removal of the semi-permanent access road to Sandford Substation, would result in **minor beneficial** or **minor beneficial to neutral** significances of residual effect on landscape character.

6.1 Landscape Institute and the Institute of Environmental Management & Assessment. Guidelines for Landscape and Visual Impact Assessment. Third Edition. Routledge, 2013.

6.2 Landscape and Views Thematic Group. National Grid has engaged with consultees with an interest in the potential effects on the landscape that may arise from the Proposed Development (and also with an interest in potential visual effects) through a series of meetings known as Landscape and Views Thematic Group meetings. These consultees are referred to as the Landscape and Views Thematic Group.

6.3 National Grid. Hinkley Point C Connection project Connection Options Report 2012.

6.4 National Grid. EIA Scoping Report. April 2013. Scoping Report submitted together with a request for a Scoping Opinion to the PINS in March 2013 under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009.

6.5 National Grid, Hinkley Point C Connection project Pylon Design Options Report (2013)

6.6 The Mendip Hills AONB Partnership, Management Plan for the Mendip Hills AONB 2009 to 2014

6.7 The Mendip Hills AONB Partnership, Management Plan for the Mendip Hills AONB 2014 to 2019 (November 2013), and Final Delivery Plan (December 2013)

6.8 The Countryside Commission. Mendip Hills AONB Landscape Assessment. The Countryside Commission, 1998

6.9 Land Use Consultants. Sedgemoor Landscape Assessment and Countryside Design Summary. Sedgemoor District Council. Revised Edition, 2003

6.10 Land Use Consultants. North Somerset Landscape Character Assessment, Supplementary Planning Document. North Somerset Council, December 2005.

6.11 Chris Blandford Associates and Cooper Partnership. South Gloucestershire Landscape Character Assessment. South Gloucestershire Council, July 2005.

6.12 WS Atkins SouthWest. West Somerset Landscape Character Assessment. West Somerset District Council, November 1999.

6.13 Forest of Avon Plan 2002, North Somerset Council, 2002

6.14 NFI preliminary estimates of quantities of broadleaved species in British woodlands, with special focus on ash, Forestry Commission (FC), 2013

6.15 Distribution of Ash trees in the Countryside Survey Data, Centre for Ecology and Hydrology (CEH), 2013

6.16 The Distribution of Important Ash in Great Britain, Joint Nature Conservation Council (JNCC), 2012

6.17 Chalara Management Plan, Department of Environment, Food and Rural Affairs (DEFRA), 2013

6.18 The Holford Rules are a series of overhead line routeing guidelines first developed in 1959 by Lord Holford, adviser to the then Central Electricity Generating Board on amenity issues. They were reviewed in the 1990s by National Grid . The rules are not published as a single work but they are referred to in a number of planning publications including *Visual Amenity Aspects of High Voltage Transmission* by George A. Goulty (1989) and Planning Overhead Power Line Routes by RJB Carruthers (1987) Research Studies Press Ltd, Letchworth

6.19 Climate SouthWest. Warming to the Idea. Building resilience to extreme weather and climate change in the South West. Climate South West.Summary report 2010. Climate SouthWest, 2010 (http://climatesouthwest.org/warming-to-the-idea).

6.20 Forestry Commission. Forests and Climate Change: UK Forestry Standard Guidelines. Forestry Commission, 2011.

6.21 National Grid. Climate Change Adaptation report. National Grid.

6.22 National Building Specification Landscape (NBS Landscape) is a software package used to write concise, technically accurate and up-to-date specifications for hard and soft landscape projects. NBS Landscape is an industry standard specification system that conforms to best practice providing clauses, guidance and product information to describe the materials, standards and workmanship expected during construction and implementation of hard and soft landscape works.