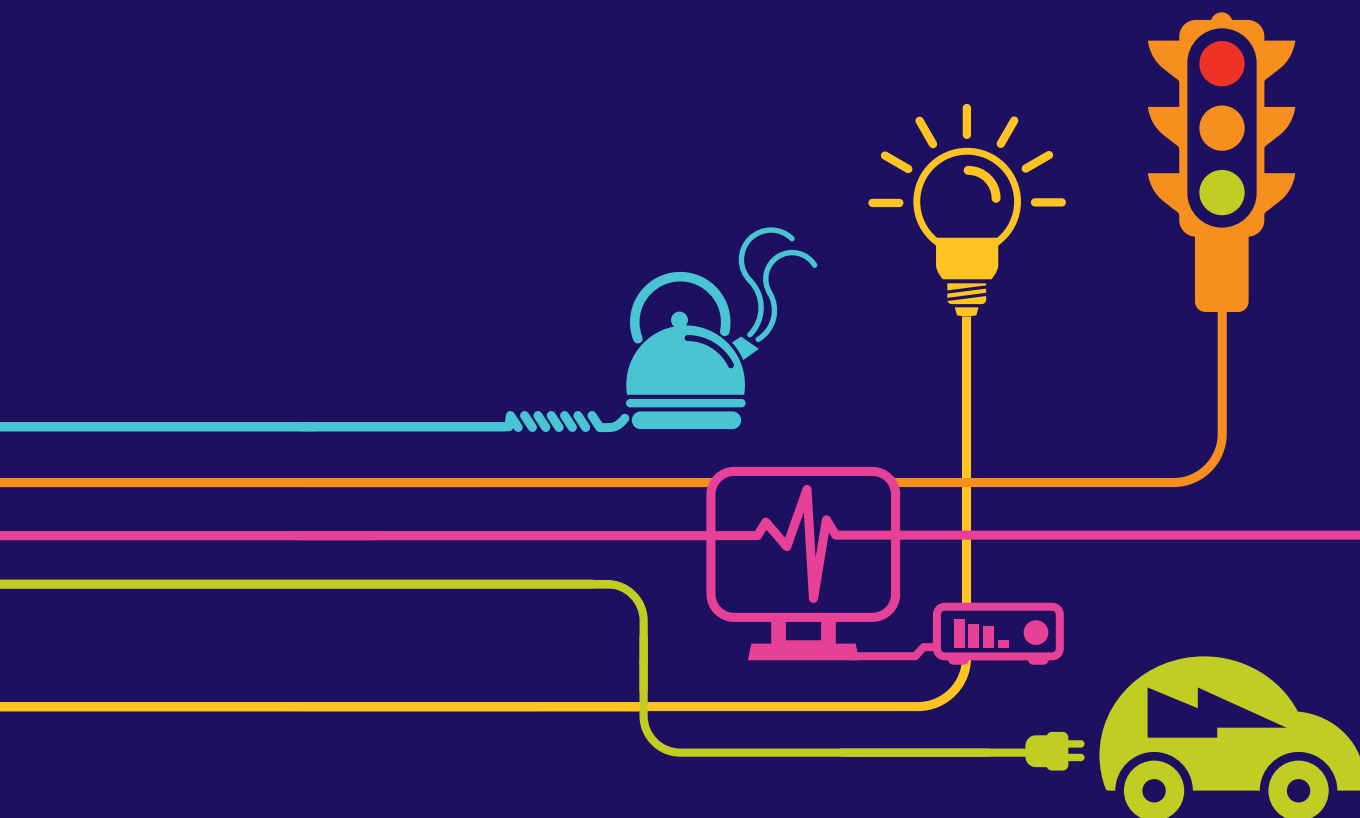


Environmental Statement Off-site Planting and Enhancement Scheme

Hinkley Point C Connection Project

*Regulation 5(2)(q) of the Infrastructure Planning
(Applications: Prescribed Forms and Procedure)
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Hinkley Point C Connection Project

JULY 2015

VOLUME 5.25.1B, OFF-SITE PLANTING AND ENHANCEMENT SCHEME

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1 INTRODUCTION

1.1 Background

- 1.1.1 The Off-Site Planting and Enhancement Scheme (OSPES) encompasses Sections A to H of the Hinkley Point C Connection. National Grid Electricity Transmission plc (National Grid) will enter into a s106 agreement with relevant local authorities to commit to the funding for the works set out or equivalent works on nearby land, where landowner consent cannot be secured, as set out in Schedule 9 to the s106.
- 1.1.2 This OSPES accompanies an application by National Grid to seek powers to construct, operate and maintain a new 400,000 volt (400kV) connection between Bridgwater Substation in Somerset and Seabank Substation, north of Avonmouth (the Proposed Development). The Proposed Development is in the administrative boundary of Somerset County Council and West Somerset District Council, Sedgemoor District Council, North Somerset Council, Bristol City Council and South Gloucestershire Council in the southwest of England (the Local Authorities).
- 1.1.3 That part of the Proposed Development that comprises an electric line above ground within section 16 of the Planning Act 2008 is a Nationally Significant Infrastructure Project (NSIP) for the purposes of that Act. Under Section 31 of the Planning Act 2008, development consent is required for development to the extent that it is or forms part of an NSIP. Development consent is granted by the making of a Development Consent Order (DCO) for which application may be made under section 37 of the Planning Act 2008.
- 1.1.4 The Proposed Development (described in more detail at Environmental Statement (ES) **Volume 5.3.1**) comprises the following principal elements:
- construction of a 57km 400kV electricity transmission connection between Bridgwater in Somerset and Seabank, near Avonmouth, comprising:
 - installation of a 400kV overhead line; and
 - installation of 400kV underground cables.
 - modifications to existing overhead lines at Hinkley Point, Somerset;
 - construction of three 400kV cable sealing end (CSE) compounds along the route of the connection;
 - construction of a 400/132kV substation at Sandford, North Somerset;
 - extension of the existing 400kV substation at Seabank;
 - the removal of existing 132kV overhead lines and the construction of replacement 132kV overhead lines and 132kV underground cables;
 - extensions/modifications to existing 132kV substations at Churchill, Portishead, Avonmouth and Seabank; and
 - associated works, for example, temporary access roads, highway works, temporary construction compounds, scaffolding, work sites and ancillary works.

- 1.1.5 The aim of the OSPES is to soften the effects of the Proposed Development in accordance with EN-1 and EN-5. This will assist in reducing the adverse residual effects on landscape character and views of the Proposed Development as identified and discussed in **Volumes 5.6.1** and **5.7.1** of the ES. Particular attention has been paid to enhancing landscape character and softening visual effects where this is likely to be most beneficial.
- 1.1.6 The OSPES proposals have considered biodiversity, heritage and the historic environment to ensure they do not contradict the reasons for designation of any local or national wildlife sites (NWS), or adversely affect heritage assets.
- 1.1.7 Although the primary focus of the planting proposals is to enhance landscape character and soften visual effects of the Proposed Development, inevitably it would bring biodiversity benefits.

Planting Proposed in the Environmental Statement

- 1.1.8 If National Grid is granted consent for the Proposed Development, its powers under the DCO would apply to specified land within the 'Order Limits' as shown on the plans submitted with the application. The Proposed Development would include embedded mitigation measures that National Grid is seeking rights to carry out in accordance with the DCO and within the 'Order Limits'. These embedded mitigation measures are separate to this OSPES scheme and include:
- a) planting replacement trees, tree groups and hedges 'in-situ' (following construction); and
 - b) new planting of trees, tree groups and hedges with new site-specific infrastructure at new CSE compounds, cables bridges and at the proposed substation north of Sandford.
- 1.1.9 The obligation to undertake these embedded mitigation measures (items a and b) would be secured through Requirements in Schedule 3 of the DCO and is separate to the enhancement work proposed in this OSPES.
- 1.1.10 National Grid will also undertake replacement planting comprising:
- c) planting replacement trees, tree groups and hedges 'ex-situ' in new locations via voluntary landowner agreement (following construction).
- 1.1.11 National Grid is seeking to secure replacement planting ex-situ (item c) via voluntary landowner agreements and deliver in accordance with the DCO, Schedule 3 Requirements. This is separate to the enhancement measures proposed in this OSPES.
- 1.1.12 The majority of indicative OSPES proposals are off-site (outside the 'Order Limits') and the rights to undertake these works have not been sought in the DCO.
- 1.1.13 In some instances indicative OSPES works are proposed on land which is also within the 'Order Limits'. Where this is the case, it is important to appreciate that the proposals or equivalent works shown in this scheme will not be secured through the DCO as they are subject to landowner agreement.

- 1.1.14 National Grid does not consider that the OSPES works are necessary to make the Proposed Development acceptable. This is because impacts are not predicted to be sufficiently significant so as to require further mitigation over and above the embedded mitigation considered in the ES. The assessments of residual effects in the ES have not taken account of the OSPES proposals.
- 1.1.15 The OSPES proposals are works to soften the effects of the Proposed Development and further reduce the adverse residual effects on landscape character and views identified in **Volumes 5.6.1 and 5.7.1** of the ES. Such measures have been identified in accordance with EN-1 and EN-5 which recognise that off-site landscape schemes can only be implemented with the agreement of relevant landowners.
- 1.1.16 The OSPES enhancement measures seek to enhance the landscape and visual amenity of the land in which the Proposed Development would sit and its wider setting beyond its baseline condition.
- 1.1.17 The OSPES should be read with the ES Volumes listed below for the Proposed Development as they assist the understanding of the descriptions and assessments summarised:
- **Volume 5.3** Project Description;
 - **Volume 5.6** Landscape;
 - **Volume 5.7** Visual Effects;
 - **Volume 5.8** Biodiversity and Nature Conservation;
 - **Volume 5.11** Historic Environment; and
 - **Volume 5.21** Arboricultural Impact Assessment.
- 1.1.18 The OSPES has been produced by National Grid, advised by its environmental consultants, The Environment Partnership (TEP) Ltd. The OSPES has been the subject of consultation with the Landscape and Views Thematic Group during the preparation of the ES and updated further during the examination of the DCO application, taking account of requests from the Joint Councils and other relevant stakeholders. Comments and suggestions made during the examination process have been incorporated into the scheme where applicable.

1.2 The OSPES Structure

- 1.2.1 This OSPES is structured as follows:
- Section 1: Introduction and background to the OSPES with details of compliance with national policy and relevant published documents;
 - Section 2: Summary of baseline landscape character and views in Sections A-H;
 - Section 3: Summary of the landscape and visual effects anticipated in relation to the Proposed Development;
 - Section 4: Aims and Objectives of the OSPES;

- Section 5: OSPES Enhancement Measures;
- Section 6: OSPES Principals and Guidance;
- Section 7: Implementation of the OSPES;
- **Appendix A (Volume 5.25.2B):** Schedule of Enhancements detailing the justification for, and implication of each enhancement proposal. The schedule also describes the method and measures of each enhancement proposal;
- **Appendix B (Volume 5.25.2B):** Plant Palette list of appropriate plant species to guide the selection of planting;
- **Appendix C (Volume 5.25.2B):** Landscape Specification describing the materials, standards and workmanship required during the proposed soft landscaping works;
- **Appendix D (Volume 5.25.2B):** Maintenance Operations required during the first 5 years of establishment;
- **Appendix E (Volume 5.25.2B):** Consultation Responses summarising the comments and responses of the OSPES consultation with the relevant Local Planning Authorities and statutory consultees;
- **Appendix F (Volume 5.25.2B):** Gazetteer of Historic Environment Baseline Data illustrated at **Volume 5.25.3B**, Figure 25.3;
- **Figure 25.1 (Volume 5.25.3B):** OSPES plans illustrating the location and type of enhancement works in each Section of the Proposed Development;
- **Figure 25.2 (Volume 5.25.3B):** Plans illustrating the location of International and National Wildlife Designations for consideration to the OSPES proposals; and
- **Figure 25.3 (Volume 5.25.3B):** Plans illustrating the location of historic environment baseline data for consideration to the OSPES proposals.

1.3 Compliance with National Policy Statement

- 1.3.1 National policy for energy infrastructure is set out in National Policy Statements (NPS) and provides the basis for decision-making on NSIP. Overarching National Policy Statement for Energy EN-1 (EN-1), July 2011 is the overarching NPS for energy projects, while National Policy Statement for Electricity Networks Infrastructure (EN-5) July 2011 relates specifically to electricity networks infrastructure. Together EN-1 and EN-5 provide the basis for decisions to be taken by the Secretary of State on applications made for electricity networks infrastructure under the Planning Act 2008.
- 1.3.2 NPS EN-1 requires assessments to include effects during construction of the project and the effects of the completed development and its operation on landscape and visual amenity. EN-1 also requires assessments to:
- determine if it may be appropriate to undertake landscaping off-site depending on the topography of the surrounding terrain and areas of

population. For example, filling in gaps in existing tree and hedge lines would mitigate the impact (effect) when viewed from a more distant vista; and

- take appropriate mitigation measures to address adverse effects on coastal access, National Trails and other rights of way, for example for walkers, cyclists and horse riders.

1.3.3 NPS EN-5 recognises that mitigation measures can reduce the effects on landscape and visual amenity through:

- landscape schemes comprising off-site tree and hedgerow planting, sometimes used for larger new overhead line projects to mitigate potential landscape and visual effects, softening the effect of a new above ground line whilst providing some screening from important visual receptors; and/or
- screening, implementing 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 effect from a particular receptor.

1.3.4 **Volume 5.6.1, section 6.5** and **Volume 5.7.1, section 7.5** of the ES provides the assessment of the anticipated effects of the Proposed Development on landscape and views during construction, operation and decommissioning stages, as required by EN-1.

1.3.5 The measures in the OSPES have been identified in accordance with advice in EN-1 and EN-5 and if implemented would soften the effects of the Proposed Development and further reduce the adverse residual effects on landscape character and views. The OSPES addresses these measures through the provision of enhancement works to;

- soften the effects of the new overhead line and provide screening through off-site planting of trees, hedgerows and woodland structure planting, including filling in gaps in existing tree and hedge lines, to strengthen landscape character and further reduce visual effects;
- screen views from some residential properties and important viewpoints through localised tree, hedgerow and woodland structure planting in the vicinity of receptors; and
- improve access and signage of local PRoW and National Trails in the vicinity of the Proposed Development, including long distance footpath and cycle routes.

1.4 Reference Documents

1.4.1 The following published documents were used to establish the appropriate measures to include in the OSPES for each of the Sections A-H:

- Sedgemoor Landscape Assessment and Countryside Design Summary (Ref 25.1);
- West Somerset Landscape Character Assessment (Ref 25.2);
- Landscape Assessment of the Mendip Hills (Ref 25.3);
- North Somerset Landscape Character Assessment (Ref 25.4);
- South Gloucestershire Landscape Character Assessment (Ref 25.5);
- Mendip Hills Area of Outstanding Natural Beauty (AONB) Management Plan 2014-19 (Ref 25.6);
- Forest of Avon Plan 2002 (Ref 25.7);
- Sedgemoor Green Infrastructure Strategy (Ref 25.8); and
- North Somerset Council Rights of Way Improvement Plan 2007-2017 (Ref 25.9).

2 BASELINE CONTEXT

2.1 General

- 2.1.1 This section summarises the description of the baseline environment provided in the ES at **Volume 5.6.1, section 6.4** (Landscape) and **Volume 5.7.1, section 7.4** (Visual Effects) which describe the baseline environment in relation to the Proposed Development. It includes a summary description of the relevant landscape character of Sections A to H of the Proposed Development.
- 2.1.2 This section also summarises the enhancement guidelines identified in the published landscape assessments listed above at section 1.4.

2.2 Landscape Character

Study Area

- 2.2.1 The existing landscape character of Sections A to H broadly comprises the flat, low-lying and generally rural Somerset Levels and Moors 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; and the dockland and industrial landscape near Portishead and at Avonmouth.
- 2.2.2 Local Landscape Character Areas (LLCAs) described below are illustrated at **Volume 5.6.2, Figures 6.2.1 to 6.2.5**.

Section A - Puriton Ridge and Section B Somerset Levels and Moors South

- 2.2.3 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 north of the Mendip Hills AONB. Low-lying farmland is interrupted in places by steep landscape features such as Puriton Ridge and the Mendip Hills AONB.
- 2.2.4 LLCAs in Section A and B that fall within 1km of the Proposed Development include: the Levels (L) and Clay Moors (C) and the Lowland Hills including the Polden Hills (PO).
- 2.2.5 The published Sedgemoor Landscape Character Assessment (Ref 25.1) encompassing Sections A and B identifies issues which threaten character including Dutch elm disease which has resulted in hedgerow thickets that have diminished biodiversity value. The published assessments of landscape character in Sections A and B identified the need for:
- hedge laying and maintenance to improve species-poor or gappy hedges;
 - implementation of a replacement strategy for hedgerow trees;
 - replanting and maintenance of orchards;
 - maintenance of traditional pattern and systems of land drainage;
 - maintenance of pollarded willows; and

- maintenance of woodland diversity.

Section C - Mendip Hills AONB

- 2.2.6 The Mendip Hills AONB is in the Mendip Hills national character area (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 northeast. 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.
- 2.2.7 LLCAs in Section C that fall within 1km of the Proposed Development include: the Lox Yeo Rolling Valley Farmland (J1); Lox Yeo River Floodplain (B2); Strawberry Belt and Foothills Villages (SB); Scarp Slope, West Mendip Summits and Cheddar Gorge (SS); Mendip Ridges and Combes (E1).
- 2.2.8 The published North Somerset Landscape Character Assessment (Ref 25.4), Mendip Hills AONB Management Plan (Ref 25.6) and the Landscape Assessment of the Mendip Hills (Ref 25.3) cover land within Section C and set out measures to protect and enhance local character including:
- conserve rural nature of the generally pastoral landscape;
 - promote the management strategy for the river and ditches for biodiversity;
 - minimise the impact of settlement edge through design guidance and selective hedgerow and woodland planting for screening;
 - support traditional hedgerow management, and in particular conserve medieval field patterns;
 - implement a coherent strategy with regard to Dutch elm disease, which may include retention or removal and replacement;
 - encourage woodland management initiatives, to support the planting and cropping of local hardwoods;
 - consider wet woodlands for screening intrusive land uses and transport corridors such as the M5;
 - screen quarrying activities, especially in views from the south, and encourage restoration plans for nature conservation;
 - restore and maintain dry stone walls along the ridges and combes;
 - maintain and re-plant orchards; and
 - encourage heathland management.

Section D - Somerset Levels and Moors North

- 2.2.9 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.

- 2.2.10 The Bristol Avon Valleys and Ridges (NCA 118) extends across higher ground east of the Somerset Levels and Moors north of the Mendip Hills AONB, and encompasses Tickenham Ridge, and Portishead Ridge to the north.
- 2.2.11 LLCAs of Section D that fall within 1km of the Proposed Development include Kingston Seymour and Puxton Moors (A1); Kenn and Tickenham Moors (A3); Locking and Banwell Moors (A4); Nailsea Farmed Coal Measures (K1); River Yeo Rolling Valley Farmland (J2).
- 2.2.12 Measures to protect and enhance landscape character identified in the North Somerset Landscape Character Assessment (Ref 25.4) that covers Section D include:
- conserve the remote and rural nature of the pastoral landscape;
 - enhance the hedgerow network (ensuring cyclical hedge cutting and nurturing new and existing hedgerow trees);
 - minimise the impact of the urban edge and the encroachment of visually intrusive land uses through design guidance and appropriate land management;
 - consider restoration of scrubbed over ditches back to open water bodies;
 - maintain pollarded willows and encourage local uses for the cut material;
 - encourage high water level management; and
 - maintain open views to the church towers and spires which form landmark features.

Section E - Tickenham Ridge

- 2.2.13 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.
- 2.2.14 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.
- 2.2.15 LLCAs of Section E that fall within 1km of the Proposed Development include Tickenham Ridges and Combes (E5); Abbots Leigh Sandstone Uplands (F1) Failand Settled Limestone Plateau (G2).

- 2.2.16 The assessment of the LLCA of Tickenham Ridges and Combes promotes conservation of woodland, parkland and pasture, with limited areas of restoration and enhancement where elements have been lost or are failing.
- 2.2.17 Guidelines in the North Somerset Landscape Character Assessment (Ref 25.4) which encompasses Section E include:
- conserve and strengthen the peaceful rural character of the area;
 - encourage public access within a sensitive environment;
 - maintain key local landscape features including the estate walls, lodges, parkland trees and avenues;
 - seek appropriate management of marginal non-agricultural land use; and
 - maintain traditional land management methods and key local landscape features such as the mixed woodland belts and blocks and the dry stone walls.

Section F - Portishead

- 2.2.18 The western part of the Bristol, Avon Valleys and Ridges national character area (NCA 118) extends to the west and includes the Portishead area. NCA 118 encloses the Severn and Avon Vales character area (NCA 106) 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.
- 2.2.19 LLCAs of North Somerset that fall within 1km of the Proposed Development are Clapton Moor (A2); and Portbury Settled Coastal Edge (C2).
- 2.2.20 Guidelines in the North Somerset Landscape Character Assessment (Ref 25.4) encompassing Section F include:
- conserve the rural, pastoral character of the area;
 - consider opportunities for grassland, woodland and wetland habitat creation, particularly in areas which are marginal for farming;
 - encourage the replacement and retention of traditional field boundaries, with active cyclical management of the network of ditches/rhynes and hedgerows;
 - maintain the pollarded willows and encourage local uses for the cut material;
 - promote a sensitive rural/urban interface at Portbury and consider opportunities for planting wet woodland to provide a boundary feature and visual separation from the expanding urban areas;
 - enhance former landfill and raised sites; and
 - encourage water level management.

Section G - Avonmouth

- 2.2.21 In Section G, the northern most part of Tickenham Ridge overlooks Avonmouth and the Royal Portbury Docks. Avonmouth comprises generally flat low-lying land adjacent the River Severn and the River Avon. Farmland to the southeast of this industry is divided into an irregular field pattern defined by hedgerow and field drains.
- 2.2.22 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.
- 2.2.23 LLCAs that fall within 1km of the Proposed Development include: Portbury Settled Coastal Edge (C2); Avon Rolling Valley Farmland (J6) and the Severn Shoreline and Estuary (21).
- 2.2.24 Guidelines in the North Somerset Landscape Character Assessment (Ref 25.4) and South Gloucestershire Landscape Character Assessment (Ref 25.5) covering Section G include:
- enhance the hedgerow network;
 - minimise the encroachment of visually intrusive land uses such as large scale developments screening by hedgerow and woodland planting;
 - promote opportunities for conversion of existing areas through changes in maintenance or creation of new areas of unimproved grassland, wetland and woodland habitats;
 - link new and existing shelterbelts and screening to form a network of woodland using native species of local provenance where possible;
 - consider opportunities for grassland, woodland and wetland habitat creation, particularly in areas which are marginal for farming;
 - discourage large woodland planting inconsistent with the existing character;
 - encourage pollarding and coppicing is a distinctive feature in decline;
 - continue maintenance of farm orchards which are distinctive features; and
 - protect views of homesteads on higher ground which greatly contribute to rural agricultural character and are sensitive to change.

Section H - Hinkley Line Entries

- 2.2.25 Section H comprises the flat low-lying coastal marsh of Wick Moor and North Moor with the existing Hinkley Point Power Station Complex on higher ground to the north of North Moor.
- 2.2.26 Substations and ground level activity within the power station are screened by mature tree cover within the southern and eastern extents of the power station site.

Three large buildings at the existing Hinkley Point Power Station Complex on the West Somerset Coast are visible as prominent structures above mature tree cover.

2.2.27 LLCAs that fall within 1km of the Proposed Development include Wick Moor and Coast (WMC); the Coast (TC) and the Wall Common and Coast (WCC).

2.2.28 Landscape management guidelines of the West Somerset Landscape Character Assessment (Ref 25.2) covering Section H include:

- encourage sensitive hedgerow management by laying or flailing on rotation;
- allow selected hedgerow trees to grow to maturity;
- increase awareness of the wildlife value of ditches and water bodies;
- safeguard the quality and availability of open space;
- improve access to and interpretation of the natural and built environments;
- consider landscape setting of footpaths, bridleways and other local access; and
- safeguard and enhance the quality of views.

2.3 Views

2.3.1 Across Sections A to H there are a range of views experienced by public and private receptors.

2.3.2 Views of the existing landscape are broadly characterised by the flat low-lying Somerset Levels and Moors and the Severn and Avon Vales. Views across the flat landscapes of the Levels and Moors are limited by valleys and ridges including Puriton Ridge, the Mendip Hills AONB, Tickenham Ridge and Portishead Ridge. Other characteristic landforms that feature in views of the wider study area include Brent Knoll, the Isle of Wedmore, Crook Peak, Cleeve Ridge and King Weston Hill.

2.3.3 There are existing overhead lines present in the area including 400kV, 275kV, 132kV and 33kV overhead lines. Existing overhead lines are generally visible across large scale flat landscapes. Typically most receptors have views of existing overhead lines, including the F Route and the G Route, with the tops of pylons and conductors visible above intervening field trees and hedgerows. Existing overhead lines become less visible or screened in more distant views as filtering and screening by trees, landform and built form have increasing effects. Receptors close to existing overhead lines experience a greater effect from pylons and conductors in near views.

3 EFFECTS OF THE PROPOSED DEVELOPMENT

3.1 General

- 3.1.1 This section summarises the prediction and assessment of significance of the potential effects of the Proposed Development on landscape and visual amenity provided in the ES at **Volume 5.6.1, section 6.10** (Landscape) and **Volume 5.7.1, section 7.10** (Visual Effects).

3.2 Landscape Effects

- 3.2.1 The proposed 400kV overhead line would result in direct adverse effects on landscape character of moderate adverse significance within Sections A to B and Sections D to F, due to the introduction of a linear development (comprising conductors suspended from arms on supports at regular distances). The proposed 400kV overhead line crossing the River Avon and running across Avonmouth in Section G and proposed Hinkley Line Entries in Section H generally would result in direct adverse effects of minor adverse significance. Overall the proposed 400kV overhead line would affect landscape character adversely by introducing a manufactured and functional form into rural and urban landscapes.
- 3.2.2 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 to be removed, and deviates across low-lying farmland away from the F Route which would be removed.
- 3.2.3 Beneficial landscape effects would arise where the F, G and W Routes would be removed and would not be replaced with the proposed 400kV overhead line including across Clapton Moor and Portbury Wharf Nature Reserve as part of the preferred route (Option A). The proposed replacement of the W Route with 132kV underground cables and the removal of the F Route as part of the Proposed Development on Nailsea Moor and Tickenham Ridge would help to offset adverse residual effects on landscape character resulting from the proposed 400kV overhead line.
- 3.2.4 The design of the Proposed Development has given careful consideration to the primary purpose of the Mendip Hills AONB designation (to conserve and enhance the natural beauty of the landscape), 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. The F Route would be removed and 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.

- 3.2.5 Landscape mitigation proposals for the proposed Bridgwater Tee CSE compounds would also reduce the visibility of this new infrastructure on Horsey Level and in the context of the locally valued Puriton Ridge.
- 3.2.6 Trees and hedgerow would be lost along field boundaries, watercourses and roads (as identified in the Arboricultural Impact Assessment (AIA) at **Volumes 5.21.1B, 5.21.2A and 5.21.3B**), across construction working areas and to allow access during the construction of the Proposed Development, and in some places would remain absent or cut low to achieve the electrical safety clearances required during operation of the proposed overhead line.
- 3.2.7 Hedgerows 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 losses would occur, they would generally result in a minor alteration to this landscape feature, and would have no greater than a minor adverse significance of residual effect on landscape character. Underground cables swathes would be reinstated and reseeded, and removed hedgerow would be replanted in-situ restoring field boundaries for the long-term.

3.3 Visual Effects

- 3.3.1 Most receptors would experience a minor adverse or negligible significance of effect on views as a result of the Proposed Development. Typically receptors would have views of the Proposed Development above intervening field trees and hedgerows, with the tops of pylons and conductors visible above the hedgerows and trees. The proposed 400kV overhead line between Bridgwater and Seabank would replace the F Route and G Route between Bridgwater and Avonmouth Substations. Between Bridgwater Substation (Section A) and the River Avon (Section G) the proposed 400kV overhead line would be supported by T-pylons, with the remaining section to Seabank Substation supported by lattice pylons. The 400kV overhead line would have a greater extent of pylon support visible above trees as compared to the existing overhead lines due to the greater heights of the 400kV pylons.
- 3.3.2 Existing 400kV, 275kV, 132kV and 33kV overhead lines would remain visible in many views of the Proposed Development and these would reduce the sensitivity of the views to the Proposed Development. The Proposed Development would be less visible in more distant views as filtering and screening by trees, landform and built form has increasing effects.
- 3.3.3 Private views of the Proposed Development across the wider study area would typically be experienced by individual properties and settlements within 1km. In general, views of the Proposed Development from settlements would be experienced from the settlement edge with views within the settlement often screened by built form and trees. Some individual properties in settlements are close to the Proposed Development, in particular in the settlements of Mark, Rooks Bridge, Tarnock, Stone-edge-Batch, Portbury Wharf and Portbury (depending on the route option) and Avonmouth. The proposed 400kV overhead line would be visible in the foreground with views along sections of the overhead line.
- 3.3.4 A beneficial residual effect of moderate and minor significance in views would be experienced by a large number of receptors in the Mendip Hills AONB where the F

Route would be removed and proposed 400kV underground cables installed. Views in the Mendip Hills AONB are of national value due to its planning designation. The scenic value of views in the Mendip Hills AONB is promoted in tourist literature and maps published for the Mendip Hills AONB Unit, and is evident through the provision of facilities such as parking places and viewing points. A beneficial significance of effect in views would also be experienced near Nailsea, Tickenham Ridge and Clapton-in-Gordano, Portishead, Portbury Wharf and Sheepway where the W Route and the F Route would be removed and new 132kV underground cables installed to replace the W Route.

- 3.3.5 The greatest residual effects on views would be experienced by visual receptors close to the proposed 400kV overhead line, with some directly adjacent, and would include users of cycle routes, Public Rights of Way (PRoW), outdoor recreation and tourist facilities and residential properties. Effects anticipated in views from the PRoW network in the vicinity of the Proposed Development typically would be of minor adverse significance with localised moderate adverse effects experienced where overhead lines pass over and would introduce new 400kV pylons close into the view.
- 3.3.6 The effects on views would be reduced with distance and the effects of intervening trees and hedges. Effects on the experience of using cycle routes and other PRoW typically would be short in duration as receptors travel along the routes. Other existing overhead lines on steel lattice pylons also feature in views beyond the immediate locality of the proposed new 400kV overhead line. For the majority of visual receptors the F Route is already present in views above trees. In general views of the F Route and G Route would be replaced with the proposed 400kV overhead line, which would be more visible above trees and hedgerows due to the increased height of the 400kV pylons.

4 AIMS AND OBJECTIVES

4.1.1 The aim of the OSPES is to soften the effects of the Proposed Development in accordance with EN-1 and EN-5. This will further reduce the long-term adverse visual effects of the Proposed Development and enhance landscape character, as identified and discussed in **Volume 5.6.1 and 5.7.1**. This would be achieved through the following objectives:

- soften the effects of the new overhead line and provide screening through off-site planting to enhance landscape character and soften visual effects;
- soften views from some residential properties and important viewpoints;
- soften effects on recreational routes close to the Proposed Development;
- manage and maintain planting to ensure successful plant establishment;
- protect landscape character including existing traditional or distinctive elements and patterns of the local area;
- manage and improve existing woodlands of community value; and
- engage landowners to develop and implement suitable schemes and management plans to soften the effects of the Proposed Development.

5 ENHANCEMENT MEASURES

5.1.1 This section sets out the enhancement measures that would guide the delivery of the OSPES and achieve its aims and objectives.

5.1.2 These have been informed by the guidelines and measures to protect and enhance local character as detailed in the local landscape character assessments and management plans identified in section 1.4 of this report. The OSPES measures are:

- where appropriate to soften and screen undesirable views towards the Proposed Development and existing developments (such as quarries, industrial yards and new housing developments) with native woodland and tree belt structure planting that would lead to improved landscape character;
- plant trees to enhance landscape and townscape character and soften views towards the Proposed Development;
- plant pollarded willows, maintain existing pollarded willows and encourage local uses for the cut material;
- plant new hedgerows and hedgerow trees to strengthen and define field patterns and soften views towards the Proposed Development;
- strengthen and define existing hedgerows through hedgerow gap planting and new hedgerow tree planting;
- where existing hedgerow trees are suitable combine or replace new tree planting with tagging of existing hedgerow tree species to be managed and established into mature hedgerow trees, through consultation with landowners;
- plant gaps in existing hedgerows to maintain and enrich existing vegetation patterns identified as 'species-poor' in the Phase 1 Habitat Survey, **Volume 5.8.3, Figure 8.2**;
- manage and maintain planting to ensure successful plant establishment;
- improve access and signage on local PRow and National Trails close to the Proposed Development;
- enhance and manage existing traditional or distinctive elements and patterns of the local area including hedgerows, dry stone walls, rhynes, trees, orchards and woodlands to protect landscape character;
- contribute to management and cost effective improvements to existing woodlands of community value; and
- develop detailed planting schemes and management plans with landowners and engage with local community groups and trusts where they manage the land to ensure the proposals are practical, deliverable and sustainable.

6 PRINCIPLES AND GUIDANCE

6.1.1 The OSPES measures identified above would be guided by the following principles:

- complement existing tree, hedgerow and woodland patterns where appropriate and ensure all proposals have regard to existing views;
- ensure successful plant establishment by carrying out planting works in accordance with the OSPES Appendices at **Volume 5.25.2B** comprising Enhancement Schedules at **Appendix A**, the Plant Palette at **Appendix B**, the Landscape Specification at **Appendix C** and the Management Operations at **Appendix D**;
- ensure the OSPES proposals have regard to the embedded mitigation of the Proposed Development, including site-specific proposals at **Volume 5.7.3.14A, Figures 7.32 to 7.36**;
- ensure that OSPES proposals would protect and enhance biodiversity and nature conservation identified in **Volume 5.8.1** (Biodiversity and Nature Conservation);
- ensure that OSPES proposals would not have an adverse effect on buried archaeology identified in **Volume 5.11.1** (Historic Environment); and
- where possible support local biodiversity and business by promoting the use of native plants and materials of local provenance 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 25.10).

6.1.2 The OSPES does not include new areas of planting close to the Proposed Development. This is because, if planted close to pylons, trees:

- could prevent maintenance and infringe safety clearances once mature;
- 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.

7 IMPLEMENTATION

7.1 General

- 7.1.1 National Grid will enter into a s106 agreement with relevant local authorities to secure the implementation of the OSPES.
- 7.1.2 The OSPES proposals which are set out in Schedule 9 of the s106 comprise:
- a) landscape planting;
 - b) woodland management;
 - c) distinctive landscape elements; and
 - d) Long Distance Routes and Public Rights of Way;
- 7.1.3 National Grid will deliver the OSPES landscape planting enhancement works (item a) and five years' plant maintenance.
- 7.1.4 National Grid will provide a lump sum figure for each Local Authority to undertake management of woodlands and to protect and improve distinctive landscape elements (items b and c above).
- 7.1.5 National Grid will provide a lump sum figure for each Local Authority to implement access and signage works to PRow and long distance routes (item d).
- 7.1.6 Schedule 8 of the s106 National Grid will also provide a lump sum figure to Bristol City Council to allow the Council to deliver and maintain a scheme of tree planting in Avonmouth village.

7.2 Landscape Planting

Delivery Mechanism

Planting on Private Land

- 7.2.1 National Grid is in discussion with landowners affected by the Proposed Development to secure voluntary agreement of the OSPES landscape planting proposals; and will deliver the current OSPES planting proposals where voluntary agreement can be secured. Where landowners do not agree to the specific planting identified in the current OSPES proposals, planting will be undertaken where voluntary agreement can be secured as near to the original proposed site as possible, in the following order of preference:
- landowners within 1km of the Proposed Development in that Section (A to H) who have said they might take more planting;
 - landowners between 1 and 3km of the Proposed Development in that Section (A to H) who have said they might take more planting;
 - within the relevant planning authority boundary; or
 - as part of a Community Forest, Woodland Trust or Wildlife Trust scheme in the locality.

- 7.2.2 The process for agreeing this planting with voluntary landowner agreement will ensure it does not interfere with use of land and does not interfere with the operation of the Proposed Development.
- 7.2.3 The landowner may agree to the OSPES planting in principle but request for it to be implemented closer to the site from which trees have been removed or in a different location where it is more compatible with the use of the land. If this change achieves the OSPES objectives identified and does not interfere with operation of the Proposed Development National Grid will agree to the landowner's request.
- 7.2.4 Alternatively if the landowner does not want new planting then National Grid will not undertake planting on their land and equivalent planting would be undertaken on nearby land where landowner consent can be secured in line with OSPES objectives.
- 7.2.5 National Grid will develop a scheme for planting proposals through consultation with landowners and will report on progress to the relevant planning authority. Each scheme for planting will be carried out in a manner that:
- a) contributes to local biodiversity;
 - b) is consistent with local landscape character;
 - c) does not conflict with or cause potential damage to known or potential archaeology or the settings of heritage assets; and
 - d) does not conflict with planting secured by other extant planning consents.

Tree Planting in Avonmouth Village (Bristol City Council)

- 7.2.6 Schedule 8 of the s106 secures the “Avonmouth Village Planting” scheme to allow Bristol City Council to deliver a scheme of street tree planting and other tree planting in incidental open spaces, parks and to some property gardens at Avonmouth village. National Grid has agreed to provide a commuted sum to Bristol City Council to maintain street trees planted in Avonmouth village for 15 years, in line with their Planning Obligations Supplementary Planning Document. This recognises that ongoing inspection and maintenance of street trees in the highway and adopted public realm is necessary as there is a greater duty of care and risk as compared to planting on private land.

Planting Types and Numbers

- 7.2.7 The OSPES comprises various planting types appropriate to the intended form and function of the planting:
- additional hedge gap planting (gapping up) and hedge laying;
 - additional hedge gap planting, hedge laying and tree planting;
 - new hedgerow planting;
 - new hedgerow planting with trees;
 - individual tree planting;
 - pollarded willow tree planting;
 - native woodland structure planting;

- avenue tree planting; and
- street tree planting.

- 7.2.8 The Phase 1 Habitat Survey reported in the ES (see **Volume 5.8.1, section 8.4; Volume 5.8.2, Appendix E; and Volume 5.8.3, Figure 8.2 and Figure 8.3**) identifies a range of hedgerow types and conditions. The published landscape assessments (see section 1.4) recognise the need to enhance the hedgerow network through planting and maintenance. 'Gapping up' existing hedgerows using whips and feathered trees comprises an important part of the proposed planting works that would improve habitat qualities and reinforce landscape character. Hedge laying is an important and traditional management operation and will be undertaken in combination with some gapping up, particularly where the base of existing hedgerows are very open. Larger, extra heavy standard trees will be planted as part of new hedgerows or to complement existing hedgerows where appropriate to the surrounding landscape character. Alternatively, if existing hedgerow trees are suitable, new planting will be combined or replaced with tagging of existing hedgerow tree species to be managed and established into mature hedgerow trees.
- 7.2.9 Planting will 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 25.10). The exception to this will be street trees and avenue trees where non-native species may be used. New or infill planting will aim to support or improve species diversity (where appropriate) of existing vegetation patterns and 'gap up' existing vegetation patterns such as hedgerows or shelterbelts that have not been maintained.
- 7.2.10 The numbers of trees, areas of tree groups and sections of new and 'gapped up' hedges proposed in the OSPES are set out in **Table 7.1**.

Table 7.1 OSPES Plant Numbers

Section	Number of Native Tree Planting	Area of Woodland Structure Planting (1 whip per m ²)	Native Hedgerow Planting (linear m)	Hedgerow Gap Planting (linear m)
Section A	229	46,610	899	200
Section B	663	9,076	2,769	5,635
Section C	226	0	501	482
Section D	698	5,790	3,466	3,296
Section E	195	6,231	1,646	834

Section	Number of Native Tree Planting	Area of Woodland Structure Planting (1 whip per m ²)	Native Hedgerow Planting (linear m)	Hedgerow Gap Planting (linear m)
Section F	91	969	473	670
Section G	315	8,487	1,079	300
Section H	106	0	0	0
TOTAL	2,523	77,163	10,833	11,417

Indicative Proposals

- 7.2.11 The OSPES plans at **Volume 5.25.3B, Figure 25.1.1 to 25.1.19** are indicative and identify the proposed enhancement works. The associated Schedule of Enhancements at **Volume 5.25.2B, Appendix 25A** provide further detail of the proposed indicative planting enhancement works including areas and descriptions of the work to be implemented. The Plant Palette at **Volume 5.25.2B, Appendix 25B** provides a generic selection of prominent local species for use. The Landscape Specification produced using National Building Specification Landscape (NBS Landscape) (Ref 25.11), at **Volume 5.25.2B, Appendix 25C** details the materials, standards and workmanship expected during implementation and management of soft landscape works.
- 7.2.12 The specific planting will be targeted and focused to achieve specific outcomes based on the intention of the planting, local landscape character and each landowner's aspirations.
- 7.2.13 Tree and hedgerow removal and replacement planting for the Proposed Development is detailed in the AIA at **Volume 5.21.1B, section 7 and section 9** and on the figures at **Volume 5.21.3B**.

7.3 Long Distance Routes and PRow

- 7.3.1 As set out in Schedule 9 part D of the s106 National Grid will provide a lump sum fund to allow Local Authorities to implement and prioritise PRow improvements to access and signage where appropriate. The Local Authorities will have flexibility in the application of the lump sum fund with expenditure at their reasonable discretion. The lump sum will include the costs for Local Authorities to manage the delivery works and to secure agreement with landowners. The lump sum is based on improvement of local PRow where most benefit would be derived. This relates to where the significance of effects in views from PRow within 1km would be greater than minor adverse. The OSPES plans identify these PRow in Sections A to H at **Volume 5.25.3B, Figures 25.1.1 to 25.1.19**.
- 7.3.2 In addition to the PRow improvements, National Grid will support the improvement of long distance footpath and cycle routes by providing Local Authorities with a

lump sum to fund improvements to access, signage and general repairs or improvements along each route within 1km of the Proposed Development, where the greatest landscape and visual effects would be experienced. Beyond 1km the significance of effect on users of long distance footpath and cycle routes would be no greater than minor adverse (typically negligible). This includes the following Long Distance Routes (LDR) and National Cycle Routes (NCR) located within 1km of the Proposed Development:

- National Cycle Routes 3, 26, 33, 41, 334 & 410;
- Summits of Somerset and Avon;
- Samaritans Way SW;
- River Parrett Trail;
- Strawberry Line;
- West Mendip Way;
- The Nailsea Round and Loop Walks 3, 4 & 6;
- The Gordano Round;
- River Avon Trail;
- Severn Way;
- Avon Cycleway; and
- West Somerset Coast Path.

7.3.3 The lump sum funds will be available to contribute to works that have been identified by Local Authorities in their Rights of Way Improvement Plans. Improvements to access, condition and signage in the vicinity of the Proposed Development along national cycle routes and long distance footpaths will enhance these recreational routes. Improvements could include new gates, signage and general repairs and improvements.

7.3.4 The lump sum funds will include a higher rate to implement works on the Strawberry Line LDR due to this being a dedicated surfaced footpath cycleway. Improvements to access, signage and repairs allow for sections of new surfacing to the multi-user route along with new gates, signage, furniture and general repairs and improvements.

7.3.5 A detailed list of access and signage improvements are identified in the Schedule of Enhancements at **Volume 5.25.2B, Appendix 25A** and illustrated on the OSPES plans at **Volume 5.25.3B, Figures 25.1.1 to 25.1.19**.

7.4 Woodland Management and Distinctive Elements

7.4.1 National Grid will provide a lump sum figure for each Local Authority to undertake management of woodlands of community value and protect and improve existing landscape elements that contribute to the distinctive qualities of local landscape character. The lump sum figure for each Local Authority is based on the length of Proposed Development (overhead line and underground cables) within each

Local Authority boundary. National Grid recognises the importance of protecting and enhancing woodlands of community value and undertaking effective management to contribute to local landscape character. The lump sum funds for woodland management and distinctive elements will be available to contribute to, amongst others, the management of woodlands of community value, ancient woodland, veteran trees, stone walls, rhynes and ditches, orchards and pollarded willows. The improvement of these elements as identified by the published landscape assessments (see section 2.2) would benefit local landscape character.

- 7.4.2 These elements have not been identified on the OSPES plans at **Volume 5.25.3B** or the Schedule of Enhancements at **Volume 5.25.2B, Appendix 25A** and it is anticipated that work would be carried out by Local Authorities in accordance with local management plans, design standards and specifications.

7.5 Biodiversity and Nature Conservation

- 7.5.1 The OSPES aims to support existing ecological features, prevent any detrimental effect on biodiversity arising from its implementation and ensure all work is carried out in a sensitive manner so that local habitat variations are maintained.
- 7.5.2 In the development of the OSPES plans (**Volume 5.23.3B**), reference has been made to the ecological Phase 1 Habitat Survey (shown at **Volume 5.8.1, section 8.4; Volume 5.8.2, Appendix E; and Volume 5.8.3, Figure 8.2 and Figure 8.3** of the ES) to verify that proposed planting is consistent with existing habitats. The Natural Environment and Rural Communities (NERC) Act 2006 outlines the duty of public bodies to consider biodiversity in exercise of their functions. Section 41 of the Act provides a list of living organisms and habitats of principal importance for conserving biodiversity in England. NERC status and Local Biodiversity Action Plans provide a further indication of the relative value given to existing habitats.
- 7.5.3 Landscape proposals would enhance biodiversity by increasing habitat and improving connectivity. The OSPES identifies hedgerows with open sections for additional planting of hedge and tree species. This would strengthen existing local wildlife corridors and provide increased commuting, foraging and sheltering habitat for a range of faunal species. Planting of new hedges and trees would be implemented and would connect to existing hedge networks. In more open landscapes where hedges are less frequent and where ditch networks with occasional standard trees are dominant, additional planting would be kept to individual tree planting (mostly willow species and alder) in order to tie in with the existing landscape whilst still providing additional habitat.
- 7.5.4 Different approaches have been provided in areas with ditches which are botanically and invertebrate rich (ecologically designated sites such as SSSIs). Tree and hedge planting generally is not proposed at ditches as shading of the ditch would result in a loss of biodiversity. Gap planting and new planting of hedges and trees along ditch lines in areas known to have populations of water vole will be limited to be along one bank (preferably the most northerly bank) to avoid overshading. This will ensure foraging habitat for water vole will be retained whilst increasing connectivity within the local area.
- 7.5.5 Additionally new planting generally would avoid areas where ground nesting birds of conservation concern have been recorded as these species will only nest in open arable or pastoral fields away from potential perching habitat that can be

utilised by predatory birds (some gap planting would be implemented in these areas, where appropriate).

- 7.5.6 In recognition of the indicative nature of the OSPES proposals (and dependence on landowner agreement), some additional principles are provided to ensure incidental negative impacts on bird species associated with nearby (within 10km) Special Protection Areas (SPA) do not arise.
- 7.5.7 No planting will be undertaken within 300m of an International (SPA) or National wildlife site (SSSI) designated for water birds. International and National Wildlife designations and associated citations can be viewed at Defra's Magic Map website <http://magic.defra.gov.uk>. These areas are illustrated at **Volume 5.25.3B, Figures 25.2.1-9**.
- 7.5.8 The only locations where off-site planting is proposed within 300m of an internationally important site are at Hinkley Point and at Portbury Wharf. At these locations the proposed planting consists of standard tree planting within existing hedgerows at Hinkley Point, and hedgerow gap planting at Portbury Wharf, therefore this would not have an adverse effect on birds using the Severn Estuary SPA.
- 7.5.9 In addition, no new hedgerows, lines of trees or blocks of woodland planting will be located in areas with all of the following characteristics unless it is thought beneficial as set out in 7.5.10 below:
- large fields of short-sward grassland or large arable fields;
 - winter water table typically at or close to the ground surface;
 - field boundaries lacking tall vegetation over 1m height; and
 - absence of open public access.
- 7.5.10 In certain circumstances, even though all four above characteristics are met, it may still be beneficial to carry out additional planting for wildlife (e.g. this may reduce existing disturbance impacts of roads on SPA birds). In such circumstances any proposed planting would be agreed with Natural England first.
- 7.5.11 Six areas are identified as suitable for habitat enhancement measures within the Severnside and Avonmouth Wetland Habitat Creation Project report (Cresswell 2011). These areas are illustrated at **Volume 5.25.3B, Figures 25.2.1-9**. No new hedgerows, lines of trees or blocks of woodland planting will be located in these six areas unless previously agreed with Bristol City Council, South Gloucestershire Council and Natural England.

7.6 Historic Environment

- 7.6.1 The OSPES takes account of the findings in **Volume 5.11.1** (Historic Environment) and aims to ensure that:
- the proposals are broadly consistent with the underlying historic landscape character;
 - the planting will not have an adverse effect on buried archaeology; and

- where possible, off-site planting could further reduce predicted effects on heritage receptors from the Proposed Development.

- 7.6.2 To ensure that the planting is consistent with the historic landscape character the planting proposals have been cross-referenced against the historic landscape characterisation projects that have been undertaken by the various planning authorities within 1km of the Proposed Development. First edition historic mapping was also checked. This identified whether the indicative planting proposals are in areas that were historically wooded or along boundaries that formerly included trees, as this is depicted on the county series Ordnance Survey mapping of the 1880s.
- 7.6.3 Broadly, the proposed planting is consistent with the underlying historic landscape character. In the case of a small number of areas where planting is proposed in the OSPES, the historic character is open but the scale of the planting suggested is such that the proposals will not alter the discernible historic landscape character or the ability to understand or appreciate that character.
- 7.6.4 To ensure that the planting will not cause harm to the significance of any buried archaeology, the Schedule of Enhancements at **Volume 5.25.2B, Appendix 25A** has been checked against the known heritage assets and additional project research results (field reconnaissance and geophysical survey results). This determined that in the majority of cases the proposed planting follows existing hedge lines and is therefore unlikely to impact known archaeology, as the areas proposed to be planted will already have been disturbed during the laying and re-laying of the hedgerow.
- 7.6.5 The scale of the planting in relation to strengthening of hedgerows in particular, is such that the impact on buried archaeology would be negligible. Larger areas of proposed planting have a greater potential to affect buried archaeology. Where a known heritage asset may be adversely affected it is recommended that if the planting is implemented, the likely effects are discussed with the relevant LPA's archaeological advisor and a suitable consideration of effects on archaeological remains included in the scope of work.
- 7.6.6 Figures are included at **Volume 5.25.3B, Figures 25.3.1-21**, which show the location of the historic environment baseline data and the OSPES proposals. The figures are accompanied by a gazetteer at **Volume 5.25.2B, Appendix 25E** that provides a key to the heritage assets shown on the figures. Further information about the historic environment baseline data can be found in the ES (**Volume 5.11.2.1**).
- 7.6.7 Some adverse effects from the Proposed Development are predicted for the setting of some designated heritage assets. These effects are visual, relating to the introduction of modern infrastructure in the setting of heritage assets, where the setting currently makes a positive contribution to the significance of the asset.
- 7.6.8 Where an adverse visual effect has been predicted, proposals within the OSPES could soften the adverse effects on the historic environment e.g. filtering views of the new infrastructure where the planting is consistent with historic landscape character.

7.7 Maintenance

- 7.7.1 The OSPES allows five years maintenance of the planting works proposed. National Grid considers five years is a sufficient period for plant maintenance to ensure the successful establishment of new planting in order to achieve the growth rates predicted and secure long-term viability in each of the locales. The first five years is the most important for the establishment of newly planted trees.
- 7.7.2 Maintenance undertaken in the first five years would include replacing removed, dead, damaged, diseased planting; maintaining a weed free environment around plants; re-mulching as appropriate; watering as appropriate; replacing stakes and ties as appropriate; and removing any protective guards and fencing for planting at the end of the establishment period.
- 7.7.3 Before the end of the five year maintenance period, National Grid will provide the landowner with guidance and suggestions for ongoing management of established trees and hedgerows.
- 7.7.4 The Maintenance Operations at **Volume 5.25.2B, Appendix 25D** are a guide for refinement during implementation. Local Authorities' existing specifications addressing local conditions, character and management can be used. The Schedule of Enhancements at **Volume 5.25.2B, Appendix 25A** describe the works to be undertaken and the Landscape Specification at **Volume 5.25.2B, Appendix 25C**, produced using NBS Landscape (Ref 25.11), details the materials, standards and workmanship expected during construction, implementation and maintenance of soft landscape works.
- 7.7.5 The specific activities can be targeted and focused to achieve specific outcomes based on the intention of the planting, local landscape character and each landowner's aspirations. Maintenance of the proposed works will enhance landscape character (identified in the published assessments discussed in Section 2.2 above) and ensure the successful establishment of plants to soften visual effects of the Proposed Development. The use of locally sourced materials and contractors will be promoted for each aspect of the works comprising the OSPES.

25.1 Land Use Consultants. Sedgemoor Landscape Assessment and Countryside Design Summary, Revised Edition 2003. Sedgemoor District Council, 2003

25.2 WS Atkins South West. West Somerset Landscape Character Assessment. West Somerset Council, November 1999

25.3 Chris Blandford Associates. Landscape Assessment of the Mendip Hills. Countryside Commission, May 1996

25.4 Land Use Consultants. North Somerset Landscape Character Assessment, Supplementary Planning Document. Somerset County Council, December 2005

25.5 Chris Blandford Associates/Cooper Partnership. South Gloucestershire Landscape Character Assessment. South Gloucestershire Council, July 2005

25.6 Landscapes for Life. Mendip Hills Area of Outstanding Natural Beauty (AONB) Management Plan 2014-19. Mendip Hills AONB Partnership, November 2013

25.7 Forest of Avon Trust. Forest of Avon Plan 2002. Forest of Avon Trust, 2002

25.8 ARUP. Green Infrastructure Strategy. Sedgemoor District Council, May 2011

25.9 North Somerset Council. Rights of Way Improvement Plan 2007-2017. North Somerset Council, revised November 2010

25.10 Forestry Commission. Forests and Climate Change: UK Forestry Standard Guidelines. Forestry Commission, 2011

25.11 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.