

Southampton to London Pipeline Project

Volume 6

Environmental Statement (Volume B)
Chapter 10: Landscape and Visual
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10 Landscape and Visual

10.1 Introduction

- 10.1.1 This chapter considers the potential impacts on the landscape and visual receptors arising from installation and operation of the project.
- 10.1.2 For simplicity, the term 'landscape' has been used throughout the Landscape and Visual Impact Assessment (LVIA) to describe areas of landscape and townscape. Impacts on landscapes and townscapes share the same assessment methodology.
- 10.1.3 For the purposes of the LVIA, a clear distinction is drawn between landscape and visual impacts, as follows:
- landscape impacts relate to impacts of the project on the physical characteristics or components of the landscape which form its character (e.g. landform, vegetation and buildings); and
 - visual impacts relate to the changes to views of the landscape experienced by specific receptors, e.g. local residents or users of public rights of way (PRoW).
- 10.1.4 The assessment of landscape effects has been based on published national character areas (NCAs) (Natural England, 2013 - 2015). Within the South Downs National Park (SDNP), landscape effects have also been considered against the relevant key characteristics and sensitivities of landscape character areas (LCAs) defined within the published South Downs Integrated Landscape Character Assessment (SDILCA) (Land Use Consultants, 2011).
- 10.1.5 The assessment considered potential landscape impacts on the SDNP, locally designated areas of landscape and the formal parkland (undesigned) at Brockwood Park, country parks, areas of registered common land and open access land, and on Ancient Woodland and trees protected by Tree Preservation Orders (TPOs).
- 10.1.6 A selection of Representative Viewpoints was identified and used to assess and report visual effects.

Legislative and Policy Background

- 10.1.7 Chapter 2 Regulatory and Policy Context sets out the overarching policy relevant to the project including the Overarching National Policy Statement for Energy (EN-1) and the National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4).
- 10.1.8 EN-1 contains the following paragraphs relating to landscape and visual which have been considered within this chapter:
- Paragraph 5.9.5 states that *'The applicant should carry out a landscape and visual assessment and report it in the ES [Environmental Statement]. A number of guides have been produced to assist in addressing landscape issues. 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. 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.'

- Paragraph 5.9.6 states that *'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.'*
- Paragraph 5.9.7 states that *'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.'*

10.1.9 EN-4 contains the following paragraph relating to landscape and visual which has been considered within this chapter:

- Paragraph 2.21.3 states that *'The application should also include proposals for reinstatement of the pipeline route as close to its original state as possible and take into account any requirements for agreements with the landowner to access areas for aftercare and management work. Where it is unlikely to be possible to restore landscape to its original state, the applicant should set out measures to avoid, mitigate, or employ other landscape measures to compensate for, any adverse effect on the landscape.'*

10.1.10 In addition, Appendix 2.1 Environmental Legislation and Policy includes legislation and national policy relevant to landscape and visual impacts. Appendix 2.2 Regional and Local Planning Policy provides a review of local policies that have been considered.

10.2 Approach and Methods

10.2.1 The assessment considered the landscape and visual effects arising from pipeline installation (both during the temporary construction period and also post construction, as replacement planting becomes established), and the landscape and visual effects of permanent valves, the pressure transducer chamber (a structure similar in size and appearance to the valves) and the pigging station at Boorley Green (referred to collectively as 'above ground infrastructure').

10.2.2 Effects arising from pipeline installation were assessed for three periods: during the construction works themselves; year 1 post construction; and year 15 post construction. Assessment during the construction works captures the effects of construction plant and activity, as well as loss of vegetation; year 1 assessment identifies the effects before reinstatement planting would be established; and assessment at year 15 identifies the effects when reinstatement planting would have established. To provide a comprehensive description of the installation effects in year 1 and year 15, the likely existence of above ground infrastructure has been given consideration in relevant aspects of the assessment of construction effects.

10.2.3 The assessment of operational effects considered potential landscape and visual effects of the above ground infrastructure during pipeline operation in year 1 and



year 15. To provide a comprehensive description of the operational effects, where relevant, vegetation loss arising from pipeline installation and vegetation reinstatement has been given consideration in the assessment of operational effects.

- 10.2.4 Landscape effects have been split into two categories: landscape character and landscape designations. The assessment of impacts on landscape components, such as trees and woodland, has been considered within the assessment of landscape character. The assessment of impacts on Ancient Woodland and TPO trees has been considered separately within the assessment of Landscape Effects: Landscape Designations. Landscape components have been considered in their own right as part of the assessment of effects on the SDNP.
- 10.2.5 In line with the standard approach to LVIA, residual effects are considered in year 15 when planting would be established. This approach is adopted to acknowledge that measures to reduce landscape and visual effects caused by vegetation loss cannot be completely effective until replacement planting is fully established, which can take approximately 15 years.

Methods and Guidance

- 10.2.6 The LVIA is based on Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013), which promotes impact assessment that is proportional to the scale and nature of the proposals and the likely landscape and visual effects.

Landscape Effects: Landscape Character

- 10.2.7 The assessment of landscape effects was based on published NCAs (Natural England, 2013 - 2015).
- 10.2.8 Within the SDNP, landscape effects were also considered against the relevant key characteristics and sensitivities of the LCAs defined within the published SDILCA (Land Use Consultants, 2011), which incorporates information from the Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017).
- 10.2.9 Published landscape character assessments, including the SDILCA and county scale Hampshire Integrated Character Assessment (Hampshire County Council, 2012) and Surrey Landscape Character Assessment (Hankinson Duckett Associates, 2015), were also used to inform the assessment of impacts on landscape character that would be caused by the above ground infrastructure.
- 10.2.10 The potential impact on trees was taken into account in the assessment of landscape character, informed by an arboricultural assessment. The British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (British Standards Institution, 2012) sets out the need to assess the effects of a development on trees. A targeted approach to the tree survey was undertaken by arboriculturists to record information about notable trees within 15m of the Order Limits. Notable trees are defined as prominent trees within the



landscape and by nature will generally be the larger more mature specimens. Notable trees were assessed as Category A and B trees during the arboricultural survey, using the grading definitions within British Standard 5837:2012. A precautionary approach was taken to the identification of notable trees where surveyed as tree groups and woodlands, in that not every tree within the group may be notable.

Landscape Effects: Landscape Designations

- 10.2.11 The assessment of impacts on landscape designations and features has been carried out in accordance with GLVIA3, incorporating best practice and professional judgement.

Visual Effects

- 10.2.12 Representative Viewpoints were selected to assess visual effects during and post construction, based on:
- their high sensitivity;
 - their location at recognised and important viewpoints or on scenic routes; and
 - their proximity to the proposals and the likely change in existing view.
- 10.2.13 A Zone of Theoretical Visibility (ZTV) was generated and was used as an indicative tool as part of a mix of tools to inform the selection of Representative Viewpoints for assessment in the field. A 2.4m height along the proposed route was applied to indicate the approximate height of temporary fencing, which would be a static construction feature that would be present along the route during construction. Physical features which might potentially provide screening were incorporated in the model. The ZTV related to the extent of visibility during the temporary construction stage only, because during operation the pipeline would be underground and the above ground infrastructure would be localised and small in size.
- 10.2.14 References to views made within published literature including the SDILCA, county scale landscape character assessments, the findings of a winter landscape survey and professional judgement were also used to select the Representative Viewpoints. A selection of Representative Viewpoints in excess of approximately 1km from the Order Limits was chosen to assess longer distance visual impacts.
- 10.2.15 Landscape officers at local planning authorities (LPAs) within administrative areas that would be crossed by the Order Limits were contacted regarding the suitability of proposed Representative Viewpoints. Comments were received from some LPAs as described within Section 10.2 under Baseline Conditions. SDNP Authority (SDNPA) was consulted on the proposed Representative Viewpoints in the Scoping Report (Esso, 2018), but have not provided formal comment on their location at the time of writing, although potential key visual receptors were discussed during engagement.
- 10.2.16 Views towards the temporary construction compounds and logistics hubs, and the above ground infrastructure have been considered from sensitive surrounding public viewpoints, including residential properties and PRoW, as appropriate.



Scope of Assessment

- 10.2.17 The scope of the assessment has been informed by the Scoping Opinion, provided by the Planning Inspectorate in September 2018, on behalf of the Secretary of State, following the submission of the Scoping Report (Esso, 2018). The scope has also been informed through engagement with relevant consultees.
- 10.2.18 Table 10.1 summarises the scope of the assessment for landscape and visual. This table includes the references (for example ID 4.4.1) to the relevant paragraph response from the Planning Inspectorate in the Scoping Opinion. The boxes shaded in grey are the matters that have been scoped out of the assessment following the feedback from the Planning Inspectorate.

Table 10.1: Matters Scoped In and Out of the Assessment (Grey Shading Indicates Matters Scoped Out Following Feedback from the Planning Inspectorate)

Receptor	Matter / Potential Effect	Conclusion in the SR (July 2018)	Comments from the Planning Inspectorate in the Scoping Opinion (September 2018)
NCAs and SDILCA LCAs	Landscape effects	Scoped in	Scoped in
SDNP	Landscape effects	Scoped in	Scoped in
Local landscape designations (Runnymede Area of Landscape Importance)	Landscape effects	Scoped in	Scoped in
Heritage features: Chawton House and Woburn Farm Registered Parks and Gardens Scheduled Monuments Conservation Areas Grade I and II* listed buildings Grade II listed buildings within 300m of the Order Limits	Effects on landscape setting	Scoped in	The LVIA considers heritage assets in terms of their contribution to the sensitivity/value of the landscape character, the overall assessment of impacts on landscape character and the selection of Representative Viewpoints in accordance with GLVIA3. The LVIA does not assess the impacts on heritage assets. Chapter 9 Historic Environment considers impacts on heritage assets within the 1km study area. Scoped in
Heritage features: Frimley Park and Bramdean House Registered Parks and Gardens	Effects on landscape setting	Scoped out	(ID 4.4.1) The Planning Inspectorate agrees that there is no impact pathway and this matter can be scoped out of the ES. Scoped out
Hinton Ampner National Trust house and gardens	Landscape effects and effects on the landscape setting	Scoped out	(ID 4.4.2) The Planning Inspectorate agrees that there are unlikely to be significant effects and that this matter can be scoped out of the ES. Scoped out
Heritage features:	Effects on landscape setting	Scoped out	(ID 4.4.3) In the absence of evidence to support this approach based on the adoption of a distance threshold, the



Receptor	Matter / Potential Effect	Conclusion in the SR (July 2018)	Comments from the Planning Inspectorate in the Scoping Opinion (September 2018)
Grade II listed buildings over 300m from the Order Limits			Planning Inspectorate does not agree that this matter can be scoped out of the ES. Scoped in. The LVIA considers heritage assets in terms of their contribution to the sensitivity/value of the landscape character, the overall assessment of impacts on landscape character and the selection of Representative Viewpoints in accordance with GLVIA3. The LVIA does not assess the impacts on heritage assets. Chapter 9 Historic Environment considers impacts on heritage assets within the 1km study area.
Formal parkland (undesignated) Brockwood Park Krishnamurti Centre	Landscape effects and effects on the landscape setting	Scoped in	Scoped in
Ancient Woodland and TPOs within 15m of the Order Limits	Landscape effects	Scoped in	Scoped in
Ancient Woodland and TPOs beyond 15m of the Order Limits	Landscape effects	Scoped out	(ID 4.4.4) The Planning Inspectorate agrees that there is no impact pathway and this matter can be scoped out of the ES. Scoped out
Registered common land and open access land that would be directly affected	Landscape effects	Scoped in	Scoped in
Registered common land and open access land that would not be directly affected	Landscape effects	Scoped out	(ID 4.4.5) The Planning Inspectorate agrees that there is no impact pathway and this matter can be scoped out of the ES. Scoped out
Lightwater or Bedfont Lakes Country Park	Landscape effects	Scoped out	(ID 4.4.6) In the absence of whether visual impacts in these locations could result in significant effects to landscape, the Planning Inspectorate does not agree that this matter can be scoped out of the ES. Scoped in.
'Openness' of Green Belt and other identified green spaces	Landscape effects	Scoped out	(ID 4.4.7) The Inspectorate agrees that the openness of the receptors is not sensitive to the impacts concerned and that this matter can be scoped out of the ES. Scoped out
Representative viewpoints	Discussions and agreement with LPAs/Visual effects	Scoped in	Scoped in
Landscape and visual receptors	Operational landscape and visual effects	Scoped out	(ID 4.4.8) The Planning Inspectorate notes that there will be considerable above ground assets, including the pigging



Receptor	Matter / Potential Effect	Conclusion in the SR (July 2018)	Comments from the Planning Inspectorate in the Scoping Opinion (September 2018)
			station proposed near Boorley Green, which will include artificial lighting as well as the structures themselves. The Planning Inspectorate does not agree that this matter can be scoped out of the assessment. Scoped in.

10.2.19 In addition to the points noted in Table 10.1, the Planning Inspectorate also made the following comments, provided below along with an explanation of the way in which they have been addressed within the assessment:

- (ID 4.4.2) Visual effects may still apply from Hinton Ampner House and Gardens (National Trust). This has been addressed through consideration of visual effects from Hinton Ampner House and Gardens, which are assessed in Section 10.5 under Potential Visual Effects (Representative Viewpoint 17);(ID 4.4.4) Designated Ancient Woodland was identified in the Scoping Report (Esso, 2018), but Ancient Woodland under two hectares is not included on the national inventory for Ancient Woodland (Forestry Commission, 2018). To address this, Ancient Woodland under two hectares has been identified (refer to Chapter 7 Biodiversity and Appendix 7.3 Ancient Woodland Factual Report for details on how this has been identified and where). This woodland is referred to hereafter as ‘Potential Ancient Woodland (undesigned)’;
- (ID 4.4.4) Any undesigned mature trees or areas of woodland that could be affected by the project should be assessed in terms of their contribution to the landscape. The impacts on trees has been informed by an arboricultural assessment and has been taken into account in Section 10.5 within the assessment of Potential Landscape Effects: Landscape Character;
- (ID 4.4.5) Visual effects would still potentially apply within areas of common land and open access land that would not be physically affected by the project. This has been addressed through the selection of Representative Viewpoints, assessed in Section 10.5 under Potential Visual Effects, which includes Representative Viewpoints at open access land at Beacon Hill (Representative Viewpoints 14 and 15) and outside the Order Limits across Chobham Common (Representative Viewpoints 50 – 53);
- (ID 4.4.7) Visual effects would still potentially apply within the Green Belt and green space as identified within Local Plans during construction. This has been addressed through the selection of Representative Viewpoints, assessed in Section 10.5 under Potential Visual Effects, which took into consideration the Green Belt and green space as identified within Local Plans. Representative Viewpoints 49 – 63 are located within the Green Belt;
- (ID 4.4.9) Longer distance views should be considered by selecting viewpoints from the ZTV up to 5km from the Order Limits. This has been addressed through the selection of longer distance Representative Viewpoints within the ZTV, which have been identified and assessed in Section 10.5 under Potential Visual Effects (Representative Viewpoints 13, 14, 15, 17 and 63);



- (ID 4.4.9) Viewpoints should be agreed with relevant local authorities. To address this, landscape officers at LPAs within administrative areas that would be crossed by the project were contacted regarding the suitability of proposed Representative Viewpoints. Comments were received from some LPAs as described within Section 10.2 under Baseline Conditions. SDNPA was consulted on the proposed Representative Viewpoints via the Scoping Report, but has not (at the time of writing) provided formal comment on their location, although potential key visual receptors were discussed during engagement;
- (ID 4.4.9) The ZTV will be essential in selecting viewpoints. To address this, a ZTV was generated, and was used as an indicative tool to help inform the selection of Representative Viewpoints for assessment in the field;
- (ID 4.4.10) If significant effects are likely on the Thames Basin Lowlands NCA, then the impact on this NCA should be included within the scope of the LVIA. To address this, impacts on the Thames Basin Lowlands NCA has been included in Section 10.5 within the assessment of Potential Landscape Effects: Landscape Character for completeness. However, there would be no significant effects on this character area because it is situated approximately 700m from the Order Limits, and it would not be physically affected by the project;
- (ID 4.4.11) The ES should make reference to the full list of the SDNP special qualities. The ES should also make reference to the 2010 Government circular on English National Parks and the Broads. This is addressed within Appendix 2.2 Regional and Local Planning Policy;
- (ID 4.4.11) The Applicant should make efforts to agree the approach to assessing impacts on the SDNP with SDNPA. A number of meetings were held with the SDNPA where the approach to and scope of the LVIA and arboricultural assessment was discussed. The key comments that informed the scope of the landscape work are identified within Section 10.2 under Baseline Conditions;
- (ID 4.4.11) Runnymede Borough Council has provided advice in relation to Areas of Landscape Importance in the relevant Local Plan which the applicant should take into account. To address this, the comments from Runnymede Borough Council and how this informed the scope of the landscape work are identified within Section 10.2 under Baseline Conditions;
- (ID 4.4.12) The ES should describe any embedded mitigation relied upon within the assessment including mitigation to address impacts at construction compound locations. To address this, embedded good practice measures have been identified in Section 10.4 Design and Good Practice Measures;
- (ID 4.4.12) The SDNPA have provided advice in their consultation response around the siting of construction compounds, to which the Applicant should have regard when arriving at embedded mitigation measures. To address this, landscape and visual effects were amongst the factors considered in determining the location of temporary construction compounds, logistics hubs and the above ground infrastructure;
- (ID 4.4.13) The assessment of effects on landscape character should be informed by relevant Landscape Character Assessments (e.g. Hampshire Integrated Character Assessment, SDILCA, and Surrey Landscape Character Assessment) and take into account drivers for change and key sensitivities. To

address this, the assessment of Potential Landscape Effects: Landscape Character in Section 10.5 has been informed by published landscape character assessments and takes into account drivers for change and key sensitivities identified within the SDILCA; and

- (ID 4.4.14) The ES should assess impacts from lighting on the International Dark Sky Reserve designation within the National Park and on any other sensitive receptors which could be subject to significant effects. To address this, impacts caused by temporary lighting on the International Dark Sky Reserve within the SDNP have been assessed in Section 10.5 within the assessment of Potential Landscape Effects: Landscape Designations. The impacts caused by temporary lighting have been incorporated within the assessment of Representative Viewpoints in Section 10.5 under Potential Visual Effects.

Study Area

- 10.2.20 The study area for the LVIA extends to 1km from the project Order Limits (with the exception of 10.2.21 below), including the remote logistics hubs. Whilst there may be longer distance views towards temporary construction activity and areas of vegetation loss post construction (until reinstatement planting establishes), it is unlikely that visual effects beyond 1km would be significant. This is because of the relatively narrow construction corridor, the largely temporary nature of construction effects and/or the distance. Similarly, the above ground infrastructure might be visible in longer distance views, but it is unlikely that visual effects would be significant given the small scale of these features.
- 10.2.21 The possibility of some exceptions to this from high points within the SDNP was raised by the SDNPA (in discussions which informed the Scoping Report), and a selection of representative longer-distance viewpoints in excess of 1km was therefore included within the assessment of construction impacts.
- 10.2.22 For the purposes of this assessment, the route and Order Limits are broken down into eight separate sections, further details can be found in Chapter 3 Project Description:
- Section A – Boorley Green to Bramdean;
 - Section B – Bramdean to South of Alton;
 - Section C – South of Alton to Crondall (via Alton pumping station);
 - Section D – Crondall to Farnborough (A327 crossing);
 - Section E – Farnborough (A327 crossing) to Bisley and Pirbright Ranges;
 - Section F – Bisley and Pirbright Ranges to M25;
 - Section G – M25 to M3; and
 - Section H – M3 to the West London Terminal storage facility.

Baseline Conditions

- 10.2.23 The approach used to establish the baseline conditions has included a desk-based assessment followed by site visits to the selected Representative Viewpoints and publicly accessible areas throughout the study area.



Desk-based Assessment

- 10.2.24 The following documents were used to inform the baseline:
- national and local landscape planning policies;
 - NCA profiles (Natural England, 2013 - 2015);
 - SDILCA (Land Use Consultants, 2011);
 - Hampshire Integrated Character Assessment (Hampshire County Council, 2012);
 - Surrey Landscape Character Assessment (Hankinson Duckett Associates, 2015)
 - Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017);
 - South Downs National Park: View Characterisation and Analysis (Land Use Consultants, 2015);
 - South Downs National Park Authority Tranquillity Study (SDNPA, 2017a);
 - South Downs National Park Dark Skies Technical Advice Note (SDNPA, 2018); and
 - South Downs National Park Authority Settlement Context Study Report and User Guide (SDNPA, 2017b).
- 10.2.25 Landscape constraints were also identified within the study area and used to inform the baseline, including:
- South Downs National Park (MAGIC, 2018);
 - locally designated landscapes (Runnymede Borough Council);
 - PRoWs, including national trails and promoted routes (MAGIC, 2018);
 - heritage features including Registered Parks and Gardens, Conservation Areas, listed buildings, Scheduled Monuments (MAGIC, 2018 and provided by LPAs);
 - common land and open access land (MAGIC, 2018);
 - country parks and other parks and recreational areas (MAGIC, 2018);
 - Ancient Woodland (MAGIC, 2018) and trees subject to TPOs (provided by LPAs); and
 - tree cover as identified by the National Tree Map (Bluesky International Limited, 2018).

Site Walkover and Surveys

- 10.2.26 An initial winter landscape survey was undertaken by landscape architects in early 2018 to gain familiarity with the landscape character, to gain an understanding of the general extent of visibility towards the project area from the surrounding landscape and to identify potential significant views towards the project area when visibility was most open prior to vegetation coming into leaf. The findings of the winter landscape survey were used to help influence the developing design and inform the choice of Representative Viewpoints.



- 10.2.27 Further landscape and visual surveys were carried out in relation to the preferred route between August and November 2018. The Representative Viewpoints identified in Appendix 10.1 and additional viewpoints relating to the above ground infrastructure were visited. Notes and photographs were taken from the Representative Viewpoints to assess the existing view and the likely magnitude of impact and significance of effect at the specified assessment stages. The Representative Viewpoints visited were those identified within the Scoping Report, which were considered through engagement with LPAs and SDNPA as described within Section 10.2 under Baseline Conditions, and slightly modified due to site survey constraints and the Scoping Opinion as identified in Appendix 10.1 Representative Viewpoints.
- 10.2.28 In addition to visiting the Representative Viewpoints, the assessors visited publicly accessible areas throughout the study area to gain a broader understanding of the extent of views towards the project, the overall landscape and visual effects, the extent of vegetation loss and the potential for reinstatement and mitigation planting. Route options and the locations of construction compounds were considered during this process, and this helped influence the developing design to reduce landscape and visual effects.
- 10.2.29 Following a desktop review, a tree survey was undertaken between September 2018 and January 2019 within the Order Limits plus a 15m buffer zone to identify notable trees. Tree data collected during the walkover surveys followed the guidance within BS 5837 and categorised all the notable trees as either A or B grade features, based on arboricultural, landscape and cultural values. A precautionary approach was taken to the identification of notable trees where surveyed as tree groups and woodlands, in that not every tree within the group may be notable.

Engagement Relevant to the Assessment

- 10.2.30 A number of meetings were held with the SDNPA, where the approach to and scope of the LVIA and arboricultural assessment were discussed. The key comments that informed the scope of the landscape work were as follows:
- published material on the SDNP was discussed. This formed the baseline of the landscape assessment within the SDNP and helped to identify Representative Viewpoints;
 - Brockwood Park was noted as a particularly sensitive landscape. Landscape impacts on the formal parkland (undesignated) was scoped in to the assessment, and a Representative Viewpoint was identified within Brockwood Park; and
 - other key visual receptors were raised by SDNP, including promoted long distance paths and the South Downs Way National Trail. Representative Viewpoints were selected in these locations.
- 10.2.31 An email was sent for the attention of the landscape officers at all of the LPAs within administrative areas that would be crossed by the project on 14 August 2018, requesting comment on the proposed Representative Viewpoints. Responses were received from East Hampshire District Council, Surrey County Council (on behalf of Surrey Heath Borough Council) and Winchester City Council. The response from East Hampshire District Council raised a concern about boundary walls and mature



trees close to Representative Viewpoint 29 at Upper Froyle. This has been considered within the LVIA.

- 10.2.32 Runnymede Borough Council raised a concern within their statutory response to the Scoping Report (Esso, 2018) that Representative Viewpoints 55 and 56 would not take into account the loss of trees at Dumpsey Stump at Chertsey Meads, south of the Thames, and suggested the viewpoints should be amended to account for this. However, trees would largely be retained at Dumpsey Stump through the application of good practice measures as described within Section 10.4. Therefore, the viewpoints were not amended (this addresses the Planning Inspectorate response ID 4.4.11).

Limitations of Assessment

- 10.2.33 In accordance with GLVIA3, a proportionate assessment and the use of Representative Viewpoints was adopted, based on the largely temporary nature of the impacts. The visual impact assessment therefore does not identify effects on every individual receptor. However, the number and locations of Representative Viewpoints are considered appropriate for the proportionate scope of the assessment and the largely temporary nature of effects.
- 10.2.34 It was not possible to access all Representative Viewpoints, for example where landowners refused survey access. Where this was the case, the assessment has been carried out from another similar viewpoint that was accessible close by. It is not considered that this has affected the findings and conclusions of the assessment. Changes to the Representative Viewpoints are noted within Appendix 10.1 Representative Viewpoints, and all Representative Viewpoints are illustrated on Figure 10.3.
- 10.2.35 Where Representative Viewpoints were located close to receptors of different sensitivities, the receptor with the highest sensitivity has been assessed to represent the worst case. However, it was not always possible to assess views from the receptor with the highest sensitivity because of intervening vegetation and access restrictions.
- 10.2.36 Existing vegetation outside the Order Limits offers visual screening/filtering from some locations and was taken into account within the assessment of visual impacts. Significant changes to this vegetation could potentially affect the reported visual impacts, but the management and retention of such vegetation is outside the control of the applicant. Similarly, for retained vegetation inside the Order Limits, on completion of pipeline installation, the ongoing management and retention of such vegetation is outside the control of the applicant.

Impact Significance

- 10.2.37 Impacts reported in this ES are adverse unless otherwise stated and are considered 'likely significant effects' in the context of the EIA (Environmental Impact Assessment) when of moderate significance or above (refer to Chapter 6 Overview of Assessment Process). Where effects are described as being 'significant', this refers to effects of moderate significance or greater. Where effects are described as being 'insignificant', this refers to effects of minor significance or less.



10.2.38 As explained in Chapter 6 Overview of Assessment Process, significance is determined using a three-step process:

- 1) identify value/sensitivity of a receptor;
- 2) determine magnitude of potential impact; and
- 3) assign impact significance.

10.2.39 Tables 10.2 to 10.5 set out the criteria used to assess value/sensitivity and magnitude. Impact significance was then determined taking both these assessments into account, using the matrix approach provided in Section 6.3 of Chapter 6.

Value/Sensitivity

Table 10.2: Value/Sensitivity Criteria for Landscape Receptors (Based on GLVIA3)

Sensitivity/ Value	Criteria
High	<ul style="list-style-type: none"> • The landscape character/feature is particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm; • the landscape is highly valued and includes international or national designations such as World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty, Conservation Areas, Listed Buildings or Scheduled Monuments; • high recreational value due to public accessibility, the existence of widely distributed promotional (tourist) material and/or local groups indicate a high level of interest in the area; • the landscape is in consistently good condition and provides a high level of scenic quality; • a rare landscape which includes internationally or nationally unique landscape elements/features; and • strong cultural heritage associations of more than local significance.
Medium	<ul style="list-style-type: none"> • The landscape character/feature, while distinctive, has some ability to accommodate the types of change resulting from the project with limited harm; • the landscape is moderately valued and may include local designations; • recreational value due to public accessibility, the existence of some locally distributed promotional (tourist) material and/or local groups indicate a degree of interest in the area; • the landscape is in moderate physical condition with some degree of scenic quality or in a condition that could be readily improved, with greater scenic quality, without excessive capital investment; • a landscape which includes regionally or locally unique landscape elements/features; and • strong cultural heritage associations, but of primarily local significance.
Low	<ul style="list-style-type: none"> • The landscape character/feature is not distinctive and can readily accommodate the types of change resulting from the project without harm; • the landscape contains no designations; • there is little recreational value, very limited public access and no obvious local interest in the area; • the majority of the landscape is in poor/derelict condition with little scenic merit. It could not be improved without extensive capital investment; • the landscape is not remarkable or unique in any way; and • few cultural heritage assets.

Table 10.3: Value/Sensitivity Criteria for Visual Receptors (Based on GLVIA3)

Sensitivity/ Value	Criteria
High	<ul style="list-style-type: none"> • Visual receptors experiencing cherished views of historic and/or cultural importance at a national or regional level and which are highly susceptible to change; • residents in their homes; • users of PRow or other recreational trails (e.g. National Trails, footpaths, bridleways, cyclepaths); and • users of recreational facilities where the purpose of that recreation is enjoyment of the landscape (e.g. Public Parks, National Trust/English Heritage properties or estates and other areas of high heritage value).
Medium	<ul style="list-style-type: none"> • Visual receptors experiencing cherished views of historic and/or cultural importance at a local level and which are moderately susceptible to change; • outdoor workers; • users of scenic roads, railways or waterways or users of designated tourist routes; and • schools and other institutional buildings and their outdoor areas, and users of recreational facilities where there is incidental enjoyment of the landscape (e.g. golfers).
Low	<ul style="list-style-type: none"> • Visual receptors experiencing views of little historic and/or cultural importance which are not very susceptible to change; • indoor workers; • users of main roads (e.g. trunk roads) or passengers in public transport on main arterial routes; and • users of recreational facilities where the purpose of that recreation is not related to the view (e.g. sports facilities).

Impact Magnitude

Table 10.4: Impact Magnitude Criteria for Landscape Receptors (Based on GLVIA3)

Magnitude	Description
Large	<ul style="list-style-type: none"> • Total loss or large scale damage to existing landscape character and/or distinctive landscape elements/features; • the addition of new but uncharacteristic and conspicuous landscape elements/features; and/or • impact of long duration (over 15 years) or irreversible.
Medium	<ul style="list-style-type: none"> • Partial loss or noticeable damage to existing landscape character or distinctive landscape elements/features; • the addition of new but uncharacteristic and noticeable landscape elements/features; and/or • impact of medium duration or reversible within the medium term (five to 15 years).
Small	<ul style="list-style-type: none"> • Slight loss or damage to existing landscape character or landscape elements/features; • the addition of new but uncharacteristic and small landscape elements/features; and/or • impact of short duration (0 – five years).
Negligible	<ul style="list-style-type: none"> • Barely noticeable loss or damage to existing landscape character or landscape elements/features; and/or • the addition of new but uncharacteristic and very small landscape elements/features.
No change	<ul style="list-style-type: none"> • No noticeable loss, damage/improvement or alteration to landscape character or any landscape elements/features.

Table 10.5: Impact Magnitude Criteria for Visual Receptors (Based on GLVIA3)

Magnitude	Description
Large	<ul style="list-style-type: none"> The project would immediately dominate the view and completely degrade its overall character and scenic quality; the project would completely screen/conflict with existing attractive and highly cherished features in the view; the deterioration in the existing view would be experienced by a large number of people over an extensive area; and/or impact of long duration (over 15 years) or irreversible.
Medium	<ul style="list-style-type: none"> The project would form a visible and recognisable new element of the view and partially degrade its overall character and scenic quality; the project would partly screen/conflict with existing attractive features in the view; the deterioration in the view would be experienced by a moderate number of people over a wide area; and/or impact of medium duration (five to 15 years) or reversible within the medium term.
Small	<ul style="list-style-type: none"> The project would constitute a minor component of the wider view and slightly degrade its overall character and scenic quality; the project would slightly screen/conflict with existing features in the view; the project would cause a slight deterioration in the view experienced by few people over a limited area; and/or impact of short duration (0 to five years).
Negligible	<ul style="list-style-type: none"> Only a very small part of the project would be visible resulting in a barely noticeable deterioration in the existing view; and/or the deterioration in the view would be experienced by very few people over a limited area.
No change	<ul style="list-style-type: none"> No part of the project, or work or activity associated with it, would be discernible by anyone.

10.3 Baseline Conditions

Landscape Character

- 10.3.1 Natural England has identified NCAs throughout England that share similar landscape characteristics. The study area for the project crosses seven NCAs, shown with their key characteristics in Table 10.6 and on Figure 10.1.
- 10.3.2 The SDILCA (Land Use Consultants, 2011) identifies the landscape characteristics of the SDNP. The Order Limits pass through the LCAs shown with their key characteristics and sensitivities in Table 10.7 and on Figure 10.2. Baseline information relating to the overarching landscape types that the Order Limits pass through are presented for context. The above ground infrastructure would be located within the LCAs and landscape character types as presented in Table 10.7.
- 10.3.3 The SDILCA draws on historic landscape characteristics which are considered in further detail within the Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017). Further assessment of historic landscape character is considered within Chapter 9 Historic Environment.
- 10.3.4 At a county scale, the landscape throughout the study area has also been assessed within the Hampshire Integrated Character Assessment (Hampshire County Council, 2012) and Surrey Landscape Character Assessment (Hankinson Duckett



Associates, 2015). The above ground infrastructure would be located within the county scale LCAs as presented in Table 10.8 along with the relevant key characteristics.

- 10.3.5 LCAs outside the Order Limits but within the study area have not been assessed because there would be no direct landscape impacts on these areas and no significant effects.



Table 10.6: National Character Areas (Natural England)

Section	NCA	Key Characteristics of Relevance
A	128: South Hampshire Lowlands	<ul style="list-style-type: none"> • Low lying undulating plain between the chalk hills of the Hampshire and South Downs and Southampton Water; • in rural areas, the landscape comprises a mixture of farmland, particularly pasture and woodland; • well wooded landscape, where Ancient Woodland forms a legacy of the Forest of Bere, a royal hunting forest that once covered the area; • intimate and enclosed field pattern, with many small and irregular fields enclosed by native hedgerows or woodland; and • Chalk rivers in wide, open valleys.
A	125: South Downs	<ul style="list-style-type: none"> • A broad elevated east–west chalk ridge, with a predominantly steep north facing scarp slope and a gentle southerly dip slope; • woodland is a feature of the central downs, and consists of broadleaved and mostly Ancient Woodland, commonly comprising beech, ash and sycamore; • roads and villages concentrated in river valleys and more elevated areas sparsely settled with scattered farmsteads; and • public Rights of Way (PRoW) often follow drove roads and ancient routes along the accessible downland tops, benefiting from panoramic views across the downs.
A, B, C	130: Hampshire Downs	<ul style="list-style-type: none"> • Rolling, elevated, chalk arable downland, with an open and exposed character that provides long views; • network of hedgerows, interspersed by numerous areas of oak/ash or woodland coppice and smaller meadow fields, gives a strong sense of enclosure; • network of distinctive and ancient droving roads and trackways; and • low density settlements on the downs.
C	120: Wealden Greensand	<ul style="list-style-type: none"> • A long, narrow belt of greensand, typified by scarp and dip slope topography; • undulating landform gives a sense of intimacy to the landscape; • extensive areas of Ancient Woodland of hazel, oak and birch, with some areas having been converted to sweet chestnut coppice; • remnant lowland heathland; and • mosaic of mixed farming, with pasture and arable land set within a wooded framework.
C, D	114: Thames Basin Lowlands	<ul style="list-style-type: none"> • Gently undulating lowlands crossed by meandering rivers with broad and flat valley plains; • a pastoral landscape interspersed with woodland and shaws, hedgerows and trees, remnant commons, villages and farmsteads; • increasing fragmentation of farmland character from spread of development, urban fringe influences and transport infrastructure; • modified and straightened rivers marked by riparian woodlands and meadows in more rural sections; • small-to-medium irregular fields bounded by hedgerows, often with gaps or replaced by wire fences close to urban areas; and



Section	NCA	Key Characteristics of Relevance
		<ul style="list-style-type: none"> • numerous major road and rail networks criss-cross the area.
C, D, E, F, G	129: Thames Basin Heaths	<ul style="list-style-type: none"> • High woodland cover – legacy of historic hunting forests includes Ancient Woodland, ancient hedgerows and parklands; • acidic soils and heathland character where heather, gorse, oak and birch species thrive; • small to medium sized fields within large areas of heathland and woodland; and • historic commons offer tranquillity and unenclosed views.
G, H	115: Thames Valley	<ul style="list-style-type: none"> • Flat and low lying land; • hydrological features including the River Thames and its tributaries provide unity to an area which otherwise lacks homogeneity; • densely developed with pockets of woodland, open grassland, parkland, wetlands and intimate meadows; and • strong urban influences including road and rail infrastructure, Heathrow Airport, reservoirs, extensive mineral extraction and flooded gravel pits.



Table 10.7: South Downs Integrated Landscape Character Areas

Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
A	Landscape Type D: Downland Mosaic	<ul style="list-style-type: none"> • Large scale rolling landform characteristic of the chalk dip slope, dissected by dry valleys, with localised secondary escarpments marking the division between different formations of chalk; • A prominent ridgeline follows the line of the Meon anticline with a series of upstanding hills located at Butser Hill, Old Winchester Hill and Beacon Hill from which there are panoramic views; • varying extents of surface clay capping resulting in varying soils, woodland cover and sense of enclosure. Views are constantly changing from panoramas at high points, e.g. Butser Hill, to enclosed views along hedged lanes; • a mixture of 18th and 19th century arable fields and early post-medieval pasture fields, with pockets of older medieval assarts surrounded by woodland. This mosaic of habitats supports arable weeds and farmland birds; • a strong pattern of woodland cover, most of which is of ancient origin and some of which is of national importance, and hedgerows providing enclosure which contrasts with the open farmland; • occasional areas of unimproved chalk grassland and associated woody scrub, including juniper scrub which is of particular biodiversity interest; • a number of different monuments, including long barrows, round barrows and linear boundary earthworks, are evidence that the land was valued as a ritual landscape; • iron Age hillforts on the most prominent hills. Panoramic views from these hills have attracted the attention of visitors since the seventeenth century and inspired literary comment; • a low density of dispersed settlement across the downland with a scattering of nucleated settlement in preferred lower lying areas. Distinctive churches are often landmarks; • a number of minor designed landscapes which indicates the lack of major wealthy landowners and importance of agriculture in this landscape compared to the Wooded Estate Downland landscape; • the downs contain a well-established network of PRoWs and a strong hierarchical network of roads; and • a landscape with a generally strong rural, secluded character, although with varying levels of movement across its extent. <p>Key sensitivities of relevance:</p> <ul style="list-style-type: none"> • the pockets of older medieval assarts (land converted from forest to arable use) surrounded by woodland which provide texture and containment; 	Valves 2, 3 and 4 would be located within this landscape character type.



Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
		<ul style="list-style-type: none"> • the deciduous woodland, particularly that of ancient origin, and the well developed hedgerow network which provides unity and biodiversity value which could be vulnerable to field re-organisation; • panoramic views of this landscape and adjacent landscapes afforded from the distinct hills. Any landscape change or development in this or adjacent landscapes has the potential to be highly visible; and • the strong rural, secluded character arising from the low density of dispersed settlement. <p>Drivers for past change include introduction of pylons, farm diversification, growth of recreational use of the landscape and the development of golf courses, new development on the edges of existing settlements and decline in hedgerow management and reduction in hedgerow tree regeneration. Drivers for future change include changes that could be caused by climate change, changes caused by agricultural change and land management and new development with associated increase in lighting and traffic.</p>	
A	D1a South Winchester Downland Mosaic (Enclosed) and D1b South Winchester Downland Mosaic (Open)	<ul style="list-style-type: none"> • Large scale rolling landform characteristic of the chalk dip slope, dissected by dry valleys; • a prominent open ridge follows the line of the Meon anticline rising to 201m at Beacon Hill, from where there are panoramic views; • a large area of early assarted enclosures with thick hedgerows and large areas of woodland creates a small scale secluded landscape across the central part of the character area; • a strong pattern of woodland cover, including Ancient Woodland of national importance, wood pasture on Kilmeston Down, and hedgerows providing a sense of enclosure; • occasional areas of unimproved chalk grassland and associated woody scrub, including juniper scrub which is of particular biodiversity interest; • iron Age hillforts on the most prominent hills. Panoramic views from these hills have attracted the attention of visitors since the seventeenth century and inspired literary comment; • other historic monuments include an enclosure in Preshaw Woods and round barrow cemetery on Beacon Hill; • a number of minor designed landscapes at Longwood Park, Marwell House, Belmore House, Upham House, Preshaw House, Hazel Holt, Park House and Hill Place (all on Hampshire County Council's register); • the downs contain a well-established network of PRow and a strong hierarchical network of roads; • a landscape with a generally strong rural, secluded character, although notable recreational uses include Marwell Zoological Park (a former medieval deer park) and a golf course on Corhampton Down; • panoramic views across downland, in particular from Beacon Hill across the Meon Valley to Winchester Hill. 	Valves 2 and 3 would be located within this LCA.



Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
		<p>Sensitivities specific to the South Winchester Downland Mosaic comprise:</p> <ul style="list-style-type: none"> • the large area of early assarted enclosures with thick hedgerows and significant tracts of Ancient Woodland e.g. Preshaw Wood; • the strong rural, secluded character of the landscape which may be threatened by expansion of settlements which abut its southern edge; and • the panoramic views across downland and, from Beacon Hill, across the Meon Valley to Winchester Hill. <p>Change specific to the South Winchester Downland Mosaic comprise:</p> <ul style="list-style-type: none"> • development of recreational facilities; and • recreational pressures, with demand for access and facilities in ecologically sensitive areas such as the National Nature Reserve (NNR) at Beacon Hill. <p>Landscape management and development considerations comprise:</p> <ul style="list-style-type: none"> • preserve the large area of early assarted enclosures with thick hedgerows and significant tracts of Ancient Woodland e.g. Preshaw Wood and Dur Wood; • conserve the panoramic views across downland from ridge tops, particularly from Beacon Hill; and • consider views from Beacon Hill in planning any change in this and adjacent landscapes. 	
A/B	D3a Bramdean and Cheriton Downland Mosaic (Enclosed)	<ul style="list-style-type: none"> • Comprises a gently undulating chalk downland landscape; • a number of Ancient Woodlands; • the settlement pattern is characterised by farmsteads and hamlets (e.g. Kilmeston) dispersed across the downland, linked by a network of rural lanes; • nucleated villages are located in the shelter of the Itchen Valley, e.g. Bramdean. The A272 utilises the valley as a communication route; • the downs contain a well-established network of PRowS, including the King's Way, Wayfarer's Walk and the Itchen Way; • areas of Registered Common Land at Cheriton and Bramdean provide open public access as well as providing evidence of the former practice of grazing common wood pastures; and • a number of minor parklands and designed landscapes at Hockley House, Brockwood Park, Hinton Ampner Park, Woodcote Park, Bereleigh House, and Bordean House with designed landscape features. 	Valve 4 would be located within this LCA.



Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
		<p>Sensitivities specific to the Bramdean and Cheriton Downland Mosaic comprise:</p> <ul style="list-style-type: none"> • the areas of Ancient Woodland; • the minor parklands and designed landscapes including at Brockwood Park; • the rural character of the villages; and • the areas of common land including at Bramdean. <p>Change specific to Bramdean and Cheriton Downland Mosaic comprise:</p> <ul style="list-style-type: none"> • highway upgrades; and • the introduction of pylons. <p>Landscape management and development considerations comprise:</p> <ul style="list-style-type: none"> • conserve, and continue to manage, the features of the parklands and designed landscapes at Hockley House, Brockwood Park, Hinton Ampner Park, Woodcote Park, Bereleigh House, and Bordean House, all of which are of county importance. Consider enhancing, or creating new views to, these landscape features; • conserve the areas of common land at Cheriton and Bramdean and consider reintroducing traditional management techniques such as grazing common wood pastures; and • maintain the rural character of the villages e.g. Bramdean and Kilmeston. 	
B	Landscape Type C: Clay Plateau	<ul style="list-style-type: none"> • Large tracts of elevated gently undulating countryside; • a predominantly pastoral farmland landscape with significant blocks of woodland; • varying enclosure – open and exposed in higher plateau areas with occasional long views, with a more enclosed landscape in relation to woodland cover; • survival of original pre-1800 woodland and presence of oak as a key species in hedgerows and woodland; • varied field pattern including irregular blocks of fields are evidence of 15th –17th century enclosure and a more regular field system represents 18th and 19th century enclosure; • limited settlement comprising dispersed farmsteads and occasional small nucleated villages/hamlets with church spires forming distinctive landscape features; • presence of round barrows indicative of a Bronze Age ritual landscape; 	Pressure transducer chamber would be located within this landscape type.



Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
		<ul style="list-style-type: none"> • narrow, little used lanes bordered by wide verges and ditches and limited rights of way network; • small scale historic parkland landscapes, some relating to a history of hunting; and • a strong sense of remoteness, stillness and emptiness. <p>Key sensitivities of relevance:</p> <ul style="list-style-type: none"> • the pockets of original pre-1800 (probably medieval) woodland which provide enclosure and textural contrast; • long open views in higher areas which amplify the sense of remoteness; • the strong sense of remoteness arising from the simple landscape pattern, quiet roads and very low density of settlement; and • intact hedgerow network with hedgerow trees which are of biodiversity interest and create a strong landscape pattern as well as seclusion and enclosure. <p>Drivers for past change include decline in traditional woodland management techniques, woodland regeneration and creation of plantations on former common land, introduction of modern influences such as pylons and pressure for new development. Drivers for future change include changes that could be caused by climate change, changes caused by agricultural change and land management and new development outside the SDNP boundary.</p>	
B	C1 Froxfield Clay Plateau	<ul style="list-style-type: none"> • A landscape of mixed arable and pasture fields, some of late medieval origin (representing enclosure of the open fields around medieval settlements during the late medieval and post-medieval periods) and some relating to planned enclosure during the 18th – 19th centuries; • varying enclosure – open and exposed in higher plateau areas (e.g. centrally around Colemore) with a more enclosed landscape in relation to woodland cover (e.g. in the north and south of the area); • woodland occurs throughout the plateau – significant areas of Ancient Woodland occur in the northern part of the character area (e.g. Dogford Wood, Splash Wood and Lord’s Wood) with small copses, sweet chestnut coppice and game coverts elsewhere. Presence of oak as a key species in hedgerows and woodland; • coppiced hedgerows are characteristic with a high proportion of holly. • low settlement density with isolated farmsteads of 18th – 19th century origin set within areas of recent enclosure, and small nucleated villages of medieval origin (e.g. High Cross) lying within sheltered low-lying areas and surrounded by earlier enclosures. Some of the isolated farmsteads represent shrunken medieval hamlets; and 	Pressure transducer chamber would be located within this LCA.



Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
		<ul style="list-style-type: none"> • narrow, little used rural lanes cross the area, bordered by wide verges and ditches. A marginal landscape with a strong sense of remoteness, stillness and emptiness. <p>Sensitivities specific to the Froxfield Clay Plateau comprise:</p> <ul style="list-style-type: none"> • remnant former commons of the Froxfield Clay Plateau, Colemore Common and Newton Common. <p>Change specific to Froxfield Clay Plateau comprise:</p> <ul style="list-style-type: none"> • the introduction of pylons resulting in visual intrusion; • decline in traditional woodland management practices (coppicing), field expansion, and regeneration of woodland on former commons; • replacement of semi-natural woodland with plantation woodland; and • scrub encroachment and decline in grazing on former commons and areas of wood pasture. <p>Landscape management and development considerations comprise:</p> <ul style="list-style-type: none"> • identify important landscape features such as ancient tracks, hedgerows, old drove roads associated with commons, late medieval and assart field enclosures and ensure their conservation; and • conserve the sparsely settled, undeveloped character and special quality of 'remoteness', arising from the absence of development and activity. 	
B	D4a Newton Valence Downland Mosaic (Enclosed)	<ul style="list-style-type: none"> • A gently rolling chalk landscape, eroded by dry valleys that form tributaries of the River Wey; • the majority of the landscape was enclosed during the 18th and 19th centuries giving rise to the planned landscape of fields of arable and pasture; • an area of small scale medieval assarts on the edge of Chawton represents late medieval enclosure of open fields; • areas of chalk grassland; • the former house of Jane Austen, located in Chawton, is now a museum and is a significant draw for tourists; • nucleated villages are located in the shelter of lower lying areas, e.g. Lower Farringdon, Upper Farringdon and Chawton; • a number of designed landscapes, including Chawton House (listed on English Heritage's register), Newton Valence Place, Newton Valence Manor House and Goleigh Manor (all on Hampshire County Council's register); and 	



Section	Integrated Character Type/Area	Key Characteristics of Relevance	Relevant Above Ground Feature
		<ul style="list-style-type: none"> • remnants of three medieval deer parks (at Chawton, Newton Valence and Farringdon) indicate the historic importance of the area for hunting. <p>Sensitivities specific to the Newton Valence Downland Mosaic comprise:</p> <ul style="list-style-type: none"> • areas of Ancient Woodland; • remnants of three medieval deer parks (at Chawton, Newton Valence, and Farringdon) and the designed landscapes including Chawton House; • the area of small scale medieval assarts on the edge of Chawton; and • the rural and secluded setting to villages such as Newton Valence, Lower Farringdon, Upper Farringdon and Chawton. <p>Change specific to Newton Valence Downland Mosaic comprise:</p> <ul style="list-style-type: none"> • the expansion of built development such as on the edges of Lower and Upper Farringdon; and • the introduction of pylons. <p>Landscape management and development considerations comprise:</p> <ul style="list-style-type: none"> • conserve historic parkland at Chawton, encouraging the management/restoration of permanent pasture, parkland trees, avenues and clumps of trees; • conserve, and continue to manage, the features of the parklands and designed landscapes at Chawton House (listed on English Heritage's register), Newton Valence Place, Newton Valence Manor House, and Goleigh Manor (all on Hampshire County Council's register). Consider enhancing, or creating new views to, these landscape features; • maintain the rural character and intimate character of the villages e.g. Newton Valence, Lower Farringdon, Upper Farringdon and Chawton and conserve the location and setting of the deserted medieval settlement on the edge of East Tisted. 	



Table 10.8: County Landscape Character Areas

Section	LCA	Key Characteristics of Relevance	Relevant Above Ground Feature
Hampshire Integrated Character Assessment			
A	Forest of Bere West	<ul style="list-style-type: none"> • A low-lying landscape with shallow undulations, predominantly south sloping; • locally popular accessible woodland areas; • permanent pasture, plantation woodland and small holdings with secluded, heavily wooded (often ancient origin but replanted), character away from the major towns; • this area is strongly associated with the Royal Forest of Bere, a hunting reserve that retains wooded and, to a lesser extent, open commons, assart field and woodland patterns; • hedgerows often low but with individual spreading mature oaks, sometimes of ancient origin, or lines of oak with no 'understory' hedge and occasionally isolated field specimens; and • rich biodiversity, including woodland, heathland, grassland and wetland sites. 	Valve 1 and pigging station would be located within this LCA.
A	Owslebury and Corhampton Downs	<ul style="list-style-type: none"> • Large scale, frequently undulating, rolling landform characteristic of the chalk dip slope, dissected by dry valleys; • strong pattern of woodland cover, from small copses and spinneys to large mixed woodland and Ancient Woodland of national importance, and hedgerows providing a sense of enclosure; • occasional areas of remnant downland with areas of unimproved chalk grassland and associated wooded scrub, and occasional wooded hangers; • large areas of early assarted enclosures and informal enclosures resulting in varied field size and patterns defined by thick hedgerows; • low density dispersed pattern of villages, hamlets and farmsteads; • scattered distribution of manor parks and high proportion of medieval and 17th century farmsteads linked by sinuous lanes; • well established PRoW and long distance routes, with drove links to the adjoining valley landscapes of the Itchen and Meon and to the Forest of Bere to the south; and • rural, remote and secluded character occasionally commanding long-distance views, predominantly to the south. 	Valves 2 and 3 would be located within this LCA.
A, B	Bighton and Bramdean Downs	<ul style="list-style-type: none"> • Undulating topography comprising a series of ridges and dry valleys; • heavy although free draining soils with significant areas of woodland; • fields are defined by hedgerows to create a mixed scale pattern; • significant areas of Ancient Woodland (some assarted) particularly on higher areas with some replanted; and 	Valve 4 would be located within this LCA.



Section	LCA	Key Characteristics of Relevance	Relevant Above Ground Feature
		<ul style="list-style-type: none"> well settled landscape with notable parkland areas often associated with small nucleated settlement in the Ropley area. 	
B	East Hampshire Wooded Downland Plateau	<ul style="list-style-type: none"> An elevated plateau landscape, mainly flat but with dry chalk valleys, creating gentle undulations; characterised by being one of the most wooded downland areas in the county, comprising large woodland blocks to small copses and ancient hedgerows which are well connected; there is strong survival of early enclosure field systems and particularly fields bounded by tracks and lanes; abundance of 18th and 19th century farmsteads connected by a dense rights of way network including byways open to all traffic; settlements tend to be small, often hamlets and small villages located at the edge of the character area or in elevated locations within the area; and a landscape of contrasting views, from panoramic and far reaching to very enclosed, but always heavily wooded. 	Valve 5 and the pressure transducer chamber would be located within this LCA.
B, C	Wey Valley	<ul style="list-style-type: none"> Large to medium scale arable fields cloak the open valley sides; woodland in the upper valley slopes form wooded skylines in places; valley is and has historically been an important routeway and transport corridor containing the A31 and main rail line; and St Swithun's Way long-distance route, part of the Pilgrim's Way which connected Winchester with the North Downs. 	Valves 6 and 7 would be located within this LCA.
D, E	North East Hampshire Plantations and Heath	<ul style="list-style-type: none"> Gently undulating landscape of plateau areas dissected by river valleys; distinctive 'heathy' character throughout reflected in acidic loving vegetation and giving rise to a colourful landscape through the seasons; land use comprises a mosaic of woodland, including conifer plantations, blocks of remnant open heathland and medium scale pasture fields; varied public access network of commons and open land on the heath and rights of way in the river valleys; concentration of large parkland landscapes and extensive areas of mineral extraction; large urban areas of Aldershot, Farnborough and Fleet and numerous transport corridors (M3, A30 and Basingstoke Canal) and high density of dispersed settlement of common edge origin, and smallholdings; and enclosed often intimate character with limited outward views and a sense of remoteness and seclusion despite proximity to populated areas. 	Valves 8 and 9 would be located within this LCA.
Surrey Landscape Character Assessment			



Section	LCA	Key Characteristics of Relevance	Relevant Above Ground Feature
E	Blackwater River Floodplain	<ul style="list-style-type: none"> • Flat, low lying flood plain of the Blackwater Valley, forming a narrow corridor next to settlement; • contains a number of lakes formed from gravel pits; • there are some long views across large lakes, but generally distant views are constrained by tree cover and surrounding settlement; • the Blackwater Valley Footpath crosses through parts of the western edge of the character area, along or nearby the Blackwater River. Apart from a single bridleway which connects with the Blackwater Valley Footpath, there are no other PRoW in the character area; and • tranquillity and remoteness are significantly limited by urban influence and transport routes. However, wetland areas enclosed by vegetation have a degree of isolation. 	Valve 10 would be located within this LCA.
F	Windlesham to Knaphill Settled and Wooded Sandy Farmland	<ul style="list-style-type: none"> • The character area consists of pastoral farmland with dispersed blocks of rectilinear deciduous woodland, often with a substantial amount of holly. Across the character area, there is a light scattering of farmsteads, paddocks, nurseries and the occasional golf course. There are small areas of common land, fringed with a limited number of houses, and a small low density group of dwellings; • Ancient Woodland is recorded mainly in the northern part of the character area, such as Manor Farm Wood and Halebourne Copse. Field boundaries and roadsides are well vegetated with a network of hedgerows and trees. • views across the landscape are generally limited by layers of hedges and woodland blocks; • the character area abuts built up areas in a number of locations, but settlement is largely contained or screened from view by tree cover; • a limited network of PRoW crosses most parts of the character area and connects to small areas of Open Access Land which are scattered around the character area, such as Little Heath on the northeastern edge of Chobham and Bisley Common to the west of Knaphill; • the character area includes part of a Conservation Area south of Windlesham and abuts a Conservation Area at Chobham. There are a number of small areas registered as common land, the more significant areas including Little Heath and Bisley Common; and • a rural farmland landscape with limited urban influence results in a relatively peaceful landscape. Human influence is present in the form of scattered settlement, nurseries and golf courses, but the farmed landscape set within a strong hedgerow network and woodland assists in creating a degree of tranquillity. 	Valves 11 and 12 would be located within this LCA.
F, G	Trumps Green to New Haw Settled and	<ul style="list-style-type: none"> • A gently undulating landscape; • the character area consists mainly of arable and pastoral farmland, with paddocks, nurseries, golf courses and a large sewage works; 	Valve 13 would be located within this LCA.



Section	LCA	Key Characteristics of Relevance	Relevant Above Ground Feature
	Wooded Sandy Farmland	<ul style="list-style-type: none"> • woodland blocks are small and infrequent, particularly to the south; • the field pattern is generally small to medium scale towards the northern part of the character area, bounded by hedges and tree lines, whilst fields to the south are more open; • there are views from St Ann’s Hill, north over the floodplain and nearby Thorpe Park. On lower ground, views over the northern part of the character area are contained or framed by tree cover. To the south, there are more extensive views across farmland; • St. Ann’s Hill and the Dingle, and St. Ann’s Court are Grade II and Grade II* Registered Parks and Gardens respectively. The remains of St. Ann’s hillfort and 14th century chapel are registered as a Scheduled Monument; and • some pleasant semi-rural areas, but human influence in the form of internal settlement surrounding Built Up Areas, and busy vehicular routes (albeit often filtered by vegetation), restricts the sense of remoteness and tranquillity generally. 	
H	Ash River Floodplain	<ul style="list-style-type: none"> • The character area is made up of small to medium scale pastoral fields, occasional arable fields, lakes and earth works from gravel extraction. There are a number of other uses, including golf courses, nurseries, recreation, common land, horse paddocks and a prison; • there is tree cover mainly associated with water bodies and a golf course, with no significant blocks of woodland. There is a partial hedgerow network bounding fields in places. A small area of Ancient Woodland is recorded to the west of Shepperton film studios; • there are some long views across open areas of the floodplain, but distant views are largely contained by surrounding settlement and urban infrastructure; • there is a relatively limited number of PRoWs within the character area; and • open aspect and limited internal settlement allows a degree of rurality compared to the surrounding urban areas, but tranquillity and sense of remoteness are limited. 	Valve 14 would be located within this LCA.

Landscape Designations

10.3.6 Landscape designations and features are illustrated on Figure 10.3.

South Downs National Park

10.3.7 At its southern extent, the route passes through approximately 25km of the SDNP between Bishops Waltham and Alton (Sections A and B). The baseline LCAs are presented within Table 10.7.

Tranquillity

10.3.8 The SDNPA Tranquillity Study (SDNPA, 2017a) has mapped tranquillity to help protect and enhance areas of high tranquillity within the SDNP. Much of the 1km study area within the SDNP (Sections A and B) has been assessed as being of moderate to high tranquillity, although tranquillity decreases to moderate to low around the A32 and A272 road corridors and close to larger settlements including Alton.

Dark Skies

10.3.9 SDNP gained International Dark Sky Reserve status in 2016. Six of the South Downs' darkest skies have been identified by SDNPA. None of these fall within the study area, and the closest is Old Winchester Hill which is approximately 5km east of the Order Limits. Within the SDNP, the route would run through a rural and predominantly unlit landscape, although there is light spill from the principal built-up areas of Bishops Waltham, Newtown and Alton and from traffic headlights on the A32 and A272 road corridors.

10.3.10 The Dark Skies Technical Advice Note (SDNPA, 2018) sets out the SDNPA's approach to lighting design and the protection and enhancement of dark skies, and identifies lighting zones. The study area falls within E1b – Transition Zone and E1a Intrinsic Rural Darkness and does not include E0 Dark Sky Core.

Woodland and Hedgerows

10.3.11 Within the 1km study area where it runs through the SDNP, tree cover consists of frequent copses, hedgerows and substantial tree belts. Examples of larger woodland tracts are at Preshaw Down, Joan's Acre Wood and Broom Wood east of Kilmeston and woodland at Brockwood Park. Much of the woodland is designated Ancient Woodland, registered on the national inventory for Ancient Woodland (Forestry Commission, 2018).

10.3.12 Through the SDNP, the Order Limits run through a predominantly rural, farmed landscape, so that vegetation within the SDNP that coincides with the Order Limits predominantly comprises field boundary hedgerows and tree belts.

10.3.13 The closest designated Ancient Woodlands within the SDNP, located just outside the Order Limits, are Betty Mundy's Bottom (Section A), Hughes Copse, West of Lower Farringdon (Section B) and Noar Copse and Comp, Holm Wood, Broadlands Row, north of Upper Farringdon (Section B). Within the SDNP, Potential Ancient Woodland (undesigned) falls within the Order Limits in the following places:



- west of Ashton; and
- south of Brockwood Park along Brockwood Bottom.

Landscape Features

- 10.3.14 The route has been designed to avoid Chawton House Registered Park and Garden and Brockwood Park. These historic parklands are considered in further detail in Section 10.5. No medieval hunting parks within the SDNP fall within the Order Limits.
- 10.3.15 The SDILCA (Land Use Consultants, 2011) references some ancient tracks and lanes, including hedge banks and sunken lanes within the SDNP. However, no reference was found to any of these within the area covered by the Order Limits and these landscape features within the SDNP are not considered in any further detail within this chapter.
- 10.3.16 Watercourses that would be affected by the project are described and assessed in Chapter 8 Water. Within the SDNP, the route does not cross any Main Rivers, and the alignment has been designed to avoid ponds. The route crosses approximately four Ordinary (minor) Watercourses within the SDNP north of Farringdon, where loss of vegetation during construction may result in landscape effects which are assessed within the assessment of Potential Landscape Effects: Landscape Character in Section 10.5.

Topography

- 10.3.17 The undulating topography of the study area within the SDNP is typical of the South Downs landscape, and includes Stephen's Castle Down, Preshaw Down and Humpty's Down.

Local Landscape Designations

- 10.3.18 Areas of Landscape Importance (ALI) fall within the study area (Sections G and H). These are designated within the adopted Local Plan for Runnymede (Runnymede Borough Council, 2007). The Order Limits run through one ALI named 'Woburn Hill and Chertsey Meads ALI' (Section G). This area has been designated for its particular landscape importance in relation to its prominence and setting and extensive tree cover.

Formal parkland (undesigned) at Brockwood Park Krishnamurti Centre

- 10.3.19 Brockwood Park Krishnamurti Centre and Brockwood Park School are set within a well-treed, parkland landscape, surrounded by woodland blocks including Godwin's Plantation, Humpty's Down and Moon's Copse. This is a non-designated formal parkland landscape, used partly as a peaceful study retreat. In this area there are two sub-options just east of Joan's Acre Wood (see Chapter 3 Project Description). The Order Limits run approximately 50m west and 20m south of the park (eastern suboption A2b) or over 200m west of the park (western suboption A2a).

Ancient Woodland and TPOs within 15m of the Order Limits

- 10.3.20 Chapter 7 Biodiversity and Appendix 7.3 Ancient Woodland Factual Report identifies all areas of designated Ancient Woodland and Potential Ancient Woodland (undesigned).
- 10.3.21 No designated Ancient Woodland falls within the Order Limits. Within 15m of the Order Limits, designated Ancient Woodland comprises:
- woodland at Betty Mundy's Bottom, Joan's Acre Wood and Brockwood Copse (Section A);
 - The Plantation east of Bramdean Common, and woodland north and west of Farringdon including Hughes' Copse, Noar Copse and Comp, Holm Wood, Broadlands Row (Section B);
 - woodland at Neatham Down (Section C);
 - Skains Copse, Combe Wood and Greendane Copse (Section D); and
 - Halebourne Copse and woodland at Silverlands (Section F).
- 10.3.22 Potential Ancient Woodland (undesigned) falls within the Order Limits in the following locations:
- West of Nether Hill Lane along Ford Lake Stream, northeast of Boorley Green (Section A);
 - west of Brown Heath, north of Gregory Lane (Section A);
 - west of Ashton (Section A);
 - south of Brockwood Park along Brockwood Bottom (Section A);
 - along Water Lane northwest of West Worldham (Section C);
 - Neatham Down, west of Monk Wood (Section C);
 - east of Crondall, south of Heath Lane (Section D);
 - west of Ewshot Wood (Section D); and
 - Silverlands, west of Addlestone and south of B386 (Section F).
- 10.3.23 TPOs can either apply to individual trees or groups of trees (known as group TPOs). Particularly extensive group TPOs coincide with the Order Limits east of Crondall, south of Church Crookham and south and east of Frimley. Individual and group TPOs are also located within and immediately adjacent to the Order Limits, including along Longcross Road, west of Chertsey South, around St James' Senior Boys School, Ashford, and at Halebourne Lane southeast of Windlesham. Within Conservation Areas, trees are given a similar level of protection as TPOs. This applies to trees within Farnborough Hill Conservation Area and Basingstoke Canal Conservation Area. However, the requirements for the preservation of trees in Conservation Areas is not applicable to acts authorised by a Development Consent Order.
- 10.3.24 A check of the Ancient Tree Forum on the 12 February 2019 revealed no recorded ancient or veteran trees within the Order Limits.



- 10.3.25 Undesignated notable trees or woodland that could be affected by the project have been assessed. Notable trees within the Order Limits or immediately adjacent to it are identified in Appendix 10.2 Schedule of Notable Trees.

Registered Common Land and Open Access Land

- 10.3.26 Chobham Common is registered common land and open access land situated north of Chobham, comprising an extensive wooded heathland landscape of over 500 hectares. The common is promoted for recreation, with car parking and a network of PRowS. The Order Limits would run through approximately 2.3km of Chobham Common.
- 10.3.27 Open access land (defined under the Countryside and Rights of Way Act 2000) is situated within the Order Limits in the following locations:
- along the Maultway B3015 (Section F);
 - along Red Road B311, southeast of Lightwater and at Turf Hill (Section F); and
 - Chobham Common (Section F).

Country Parks

- 10.3.28 Lightwater Country Park is situated over 500m north of the Order Limits, to the northwest of Lightwater. The park comprises approximately 60 hectares of heathland, woodland, ponds and scrub. It is a promoted visitor site with car parking, cafe, playground, sports facilities, fishing and PRowS. A promoted lookout point (Representative Viewpoint 47) is located within the western part of the park.
- 10.3.29 Bedfont Lakes Country Park is situated over 400m east of the Order Limits, to the south of East Bedfont. The park comprises approximately 70 hectares of wetlands, woodlands and lakes across former gravel extraction areas. It is a promoted visitor site for walking, picnics and orienteering, with car parking facilities and paths for walking around the lakes.

Visibility

Sections A – C

- 10.3.30 The landscape surrounding Sections A to C, including the chalk downland of the SDNP, is generally undulating. Surrounding the route, the landscape is often well wooded with a strong pattern of broadleaved woodland blocks, much of which is ancient, and tree belts.
- 10.3.31 Many views are restricted, including within the SDNP, by vegetation and the undulating landform. Views are often at close range and contained by landform so that only localised sections of the route are visible.
- 10.3.32 There are some more expansive views from elevated areas surrounding Sections A – C, including within the SDNP. However, again the undulating landform and intervening woodland cover often fragments views, so that only sections of the route are visible rather than extensive lengths.

Sections D – H

- 10.3.33 High woodland cover, characteristic of the Thames Basin Heaths, surrounds a substantial proportion of Sections D, E and F of the route, particularly between Crondall and Chertsey. The Hampshire Integrated Character Assessment and Surrey Landscape Character Assessment (refer to Table 10.8) describe the heavily wooded character and subsequent limited extent of views within this area.
- 10.3.34 The route runs through or next to extensive urban areas including Fleet, Church Crookham, Southwood, Farnborough, Frimley, Heatherside, Lightwater, Chertsey, Staines-upon-Thames and Ashford. In some sections, the Order Limits run very close to the edges of the residential areas, such as the eastern edge of Heatherside and the southern edge of Lightwater.
- 10.3.35 However, views are tightly contained by dense woodland vegetation and built development throughout much of the northern half of the route, particularly in Sections D, E and F between Crondall and Chertsey. Mature vegetation belts on the edges of residential areas largely screen views from the properties towards the highway, even in winter. This vegetation also screens many views towards the route.
- 10.3.36 In urban areas, there are generally close range views towards the route so that very short sections are visible. Examples include where the route runs along the highway through residential areas of Staines-upon-Thames and Ashford. There are a few more open views towards the route across pockets of landscape within generally well built up areas. Examples include views across golf courses, publicly accessible landscape at Fordbridge Park, Staines-upon-Thames, and across the landscape at Dumsey Meadow and Chertsey Meads. Wider views towards the Order Limits are also possible from some open areas of heathland landscape at Chobham Common in Section F where public access is permitted.

Potential Key Visual Receptors

- 10.3.37 Potential key visual receptors relevant to each section of the project are identified in Table 10.9. The Representative Viewpoints identified in Appendix 10.1 and illustrated on Figure 10.3 have been selected from this table. The Representative Viewpoints were considered through engagement with landscape officers at LPAs and with SDNPA as described within Section 10.2 under Baseline Conditions, and were slightly modified due to site survey constraints and the Scoping Opinion as identified in Appendix 10.1 Representative Viewpoints.
- 10.3.38 Longer distance viewpoints were selected as follows:
- Representative Viewpoint 13: South Downs Way National Trail at Wind Farm within SDNP (approximately 900m from the Order Limits) ;
 - Representative Viewpoint 14: South Downs Way National Trail, Beacon Hill, within SDNP (approximately 1.5km from the Order Limits);
 - Representative Viewpoint 15: Wheely Down, Monarch's Way Long Distance Path within SDNP (approximately 900m from the Order Limits);
 - Representative Viewpoint 17: Hinton Ampner House and Gardens within SDNP (approximately 1.8km from the Order Limits); and



- Representative Viewpoint 63. Bedfont Lakes Country Park (approximately 1km from the Order Limits).

Table 10.9: Key Potential Visual Receptors

Receptor Group	Examples
Residents	<p>People living in scattered rural properties and on edges of settlements closest to the Order Limits. Key surrounding settlements include:</p> <ul style="list-style-type: none"> • Botley (Section A); • Boorley Green (Section A); • Bishops Waltham and Newtown (Section A); • West Tisted (Section B); • Four Marks (Section B); • Chawton (Section B); • Alton (Section C); • Upper Froyle and Lower Froyle (Section C); • Bentley (Section C); • Crondall (Section D); • Church Crookham (Section D); • Farnborough (Section E); • Frimley, Heatherside (Camberley) and Lightwater (Sections E and F); • Chobham and Burrowhill (Section F); • Chertsey and Addlestone (Section G); and • Staines-upon-Thames and Ashford (Section H).
People visiting the SDNP	<ul style="list-style-type: none"> • Users of PRoW including the South Downs Way National Trail, open access land, and common land; and • people visiting landscapes, gardens and nature reserves within the SDNP, such as Beacon Hill NNR, Hinton Ampner National Trust house and gardens, and Brockwood Park Krishnamurti Centre (Section A).
People using PRoWs	<p>A strong network of PRoWs runs throughout the study area, and PRoWs run close to and cross the Order Limits. Several promoted PRoWs would be crossed by, or run close to, the Order Limits including The South Downs Way (Section A) and Thames Path (Section G) National Trails and the following long-distance paths:</p> <ul style="list-style-type: none"> • Pilgrim's Trail (Section A); • Monarch's Way (Section A); • Wayfarer's Walk (Section A); • St Swithun's Way (Section B); • Hangers Way (Section C); and • Blackwater Valley Path (Section E).
People visiting historic parks and gardens and undesignated parkland	<ul style="list-style-type: none"> • Hinton Ampner National Trust house and gardens (Section A); • Brockwood Park Krishnamurti Centre (Section A); • Chawton House Grade II Registered Park and Garden (Section B); • Frimley Park Grade II Registered Park and Garden (Section E); and • Woburn Farm Grade II Registered Park and Garden (Section G).
People using publicly accessible landscapes	<p>Visual receptors within publicly accessible landscapes. Notable examples include:</p> <ul style="list-style-type: none"> • Common Land (Section F); • Open Access land (Section F); and • Country Parks (Sections F and H). <p>Other parks and recreational areas. Notable examples include:</p> <ul style="list-style-type: none"> • Playing field east of Fleet (Section D);



Receptor Group	Examples
	<ul style="list-style-type: none"> • Playing fields east of Southwood (Section E); • Queen Elizabeth Park at Farnborough (Section E); • Playing fields south of Windlemere Golf Club, east of Lightwater (Section F); • Playing fields north of Abbey Moor Golf Course, Addlestone and south of Chertsey (Section G); • Chertsey Meads children’s play and picnic areas (Section G); • Publicly accessible field west of Bingham Drive, Staines-upon-Thames (Section H); and • Fordbridge Park, Staines-upon-Thames (Section H). <p>Sites promoted for wildlife (see details in Chapter 7 Biodiversity). Notable examples include:</p> <ul style="list-style-type: none"> • Beacon Hill NNR (Section A); • Bourley and Long Valley Site of Special Scientific Interest (SSSI), Church Crookham (Section D); • Eelmoor Marsh SSSI, Southwood (Section D); • Brentmoor Heath Local Nature Reserve (LNR) and Colony Bog and Bagshot Heath at West End, Surrey Heath (Section F); • Chobham Common NNR and SSSI, Chobham (Section F); • Chertsey Meads LNR (Section G); • Dumsey Meadow SSSI, Chertsey (Section G); and • Bedfont Lakes LNR (Section H).
<p>People using private landscapes</p>	<p>Users of golf courses:</p> <ul style="list-style-type: none"> • Four Marks Golf Club, east of Four Marks (Section B); • Worldham Park Golf Club, west of East Worldham (Section C); • Oak Park Golf Club, east of Crondall (Section D); • Former Southwood Golf Course at Southwood (Section E); • Pine Ridge Golf Club at Camberley (Section E); • Windlemere Golf Club, east of Lightwater (Section F); • Queenswood Golf Course, west of Ottershaw (Section F); • Foxhills Golf Club, northwest of Ottershaw (Section F); and • Abbey Moor Golf Course, Addlestone (Section G). <p>School playing fields at the following establishments:</p> <ul style="list-style-type: none"> • Farnborough Hill School, Farnborough (Section E); • Frimley Church of England School, Frimley (Section E); • Salesian School, Chertsey (Section F); • Philip Southcote School and nearby school, Addlestone (Section G); • Buckland Infant and Junior Schools and The Matthew Arnold School, Staines-upon-Thames (Section H); and • St James’ Senior Boys School, Ashford (Section H). <p>Other:</p> <ul style="list-style-type: none"> • Cemetery at Addlestone Moor, south of Chertsey (Section G); and • Ashford Cemetery, Ashford (Section H).

Value/Sensitivity of Landscape and Visual Receptors

10.3.39 The value/sensitivity of landscape and visual receptors has been established in accordance with the criteria presented in Tables 10.2 and 10.3.



- 10.3.40 The landscape sensitivity of the NCAs is set out in Table 10.10, and the sensitivity of landscape designations and features is defined in Table 10.11.
- 10.3.41 The SDILCA LCAs identified within Table 10.7 are all of high sensitivity because:
- the landscapes are particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm. However, effects would largely be of a temporary nature;
 - the landscapes form part of the highly valued and nationally recognised SDNP;
 - the landscapes offer high recreational value which is promoted by the SDNPA;
 - the landscapes are in consistently good condition and provide a high level of scenic value; and
 - the landscapes have strong cultural heritage associations with their patterns of Ancient Woodland, designated heritage features and historical landscape features identified within The Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017).
- 10.3.42 The sensitivity of visual receptor groups is presented in Table 10.12. Where a viewpoint is representative of receptors of different sensitivities, the higher sensitivity is assumed for the assessment.



Table 10.10: Landscape Sensitivity of National Character Areas

NCA	Landscape Sensitivity	Justification
128: South Hampshire Lowlands	High	<ul style="list-style-type: none"> • The landscape is particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm. However, effects would largely be of a temporary nature; • part of the landscape falls within the nationally recognised SDNP; • outside the SDNP, the landscape forms the landscape setting to the SDNP; and • cultural heritage associations include Ancient Woodland which forms a legacy of the Forest of Bere scattered listed buildings and Botley Conservation Area.
125: South Downs	High	<ul style="list-style-type: none"> • The landscape is particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm. However, effects would largely be of a temporary nature; • much of the landscape forms part of the highly valued and nationally recognised SDNP; • the landscape offers high recreational value which is promoted by the SDNPA; • the landscape is in consistently good condition and provides a high level of scenic value; and • the landscape has strong cultural heritage associations with its pattern of Ancient Woodland and heritage designations including scattered listed buildings, Conservation Areas at Upham and Preshaw and Scheduled Monuments at Lomer and Preshaw Wood.
130: Hampshire Downs	High	<ul style="list-style-type: none"> • The landscape is particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm. However, effects would largely be of a temporary nature; • part of the landscape falls within the nationally recognised SDNP; • outside the SDNP, the landscape forms the landscape setting to the SDNP; • the landscape offers high recreational value which is promoted by the SDNPA; • the landscape is in consistently good condition and provides a high level of scenic value; and • the landscape has strong cultural heritage associations with its pattern of Ancient Woodland and heritage designations including scattered listed buildings; Scheduled Monuments; Conservation Areas at Farringdon, Chawton, Holybourne, Froyle and Betley; formal parkland (undesigned) at Brockwood Park; and Chawton Registered Park and Garden (Grade II).
120: Wealden Greensand	High	<ul style="list-style-type: none"> • The landscape is particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm. However, effects would largely be of a temporary nature; • part of the landscape falls within the nationally recognised SDNP; • outside the SDNP, the landscape forms the landscape setting to the SDNP; • the landscape offers high recreational value which is promoted by the SDNPA;



NCA	Landscape Sensitivity	Justification
		<ul style="list-style-type: none"> the landscape is in consistently good condition and provides a high level of scenic value; and the landscape has strong cultural heritage associations with its pattern of Ancient Woodland and heritage designations, including scattered listed buildings and Islington Conservation Area.
114: Thames Basin Lowlands	Medium	<ul style="list-style-type: none"> The landscape character is distinctive but has some ability to accommodate the types of change resulting from the project with limited harm; recreational value provided by PRoW; landscape in moderate physical condition with scenic quality provided by pasture, woodland and shaws, hedgerows and trees; and cultural heritage associations provided by remnant commons, villages and farmsteads.
129: Thames Basin Heaths	Medium	<ul style="list-style-type: none"> The landscape character is distinctive but has some ability to accommodate the types of change resulting from the project with limited harm; includes locally designated areas of landscape importance; recreational value provided by public accessibility within common land such as Chobham Common; landscape in moderate physical condition with scenic quality provided by the heavily wooded character; and cultural heritage associations provided by historic commons, Ancient Woodland and heritage designations, including scattered listed buildings; Scheduled Monuments; Conservation Areas at Crondall, Basingstoke Canal, Farnborough Hill and Chertsey; and Woburn Farm Registered Park and Garden (Grade II listed).
115: Thames Valley	Medium	<ul style="list-style-type: none"> The landscape character is distinctive but has some ability to accommodate the types of change resulting from the project with limited harm; includes locally designated Woburn Hill and Chertsey Meads ALI; recreational value provided by public parks and landscapes within the urban area such as Chertsey Meads along the River Thames; and cultural heritage associations provided by Ancient Woodland and heritage designations, including scattered listed buildings; Scheduled Monuments; Laleham Conservation Area; and Woburn Farm Registered Park and Garden (Grade II listed).



Table 10.11: Landscape Sensitivity of Landscape Designations or Features

Designation or Feature	Landscape Sensitivity	Justification
SDNP	High	<ul style="list-style-type: none"> • The landscape is particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm. However, effects would largely be of a temporary nature; • the landscape forms part of the highly valued and nationally recognised SDNP; • the landscape offers high recreational value which is promoted by the SDNPA; • the landscape is in consistently good condition and provides a high level of scenic value; and • the landscape has strong cultural heritage associations with its pattern of Ancient Woodland, designated heritage features and historical landscape features identified within the Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017).
Local landscape designations: Woburn Hill and Chertsey Meads ALI	Medium	<ul style="list-style-type: none"> • The landscape is distinctive but has some ability to accommodate the types of change resulting from the project with limited harm; • the landscape is locally designated and valued; • recreational value – Chertsey Meads promoted for recreational access with car parks and picnic areas; and • scenic quality, particularly valued as green space within a generally well built up area.
Formal parkland (undesignated) at Brockwood Park Krishnamurti Centre	Medium	<ul style="list-style-type: none"> • The landscape character/feature, while distinctive, has some ability to accommodate the types of change resulting from the project with limited harm; • landscape includes regionally or locally unique landscape elements/features within the arboretum; and • some promotional material indicates a degree of interest in this landscape.
Ancient Woodland	High	<ul style="list-style-type: none"> • Particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm; • highly valued; • provide scenic quality; and • strong cultural heritage associations.
TPOs	High	<ul style="list-style-type: none"> • Particularly distinctive and cannot readily accommodate the types of change resulting from the project without harm; • locally valued; • provide scenic and amenity value; and • can be designated for heritage associations.



Designation or Feature	Landscape Sensitivity	Justification
Common land and open access land	Medium	<ul style="list-style-type: none"> The landscape has some ability to accommodate the types of change resulting from the project with limited harm; high recreational value due to public accessibility;
Country parks	Medium	<ul style="list-style-type: none"> Has some ability to accommodate the types of change resulting from the project with limited harm because of distance from the route; and high recreational value due to public accessibility.

Table 10.12: Sensitivity of Visual Receptors

Representative Viewpoint	Receptor Group	Sensitivity	Justification
1, 2, 3, 5, 34, 60	Residents	High	<ul style="list-style-type: none"> Residents in their homes are classed as being highly sensitive.
7 – 16, 18 – 20, 24 – 27	People visiting the SDNP	High	<ul style="list-style-type: none"> Visual receptors experiencing cherished views of historic and/or cultural importance at a national level and which are highly susceptible to change; users of PRoW including users of South Downs Way; and users of recreational facilities where the purpose of that recreation is enjoyment of the landscape (e.g. Public Parks, National Trust/English Heritage properties or estates and other areas of high heritage value).
4, 6 – 20, 23 – 25, 27, 28, 30 – 33, 35 – 39, 42 – 46, 48 – 49, 50 – 58	People using Public Rights of Way	High	<ul style="list-style-type: none"> Users of PRoW including promoted National Trails and long distance routes are classed as being highly sensitive.
17, 26, 18, 55	People visiting registered parks and gardens and formal parkland (undesigned)	High	<ul style="list-style-type: none"> Users of recreational facilities where the purpose of that recreation is enjoyment of the landscape (e.g. public parks, National Trust/English Heritage properties or estates and other areas of high heritage value) are classed as being highly sensitive.
40, 41, 47, 59, 61 – 63	People using publicly accessible landscapes	High	



Representative Viewpoint	Receptor Group	Sensitivity	Justification
26, 39	People using private landscapes	Medium	<ul style="list-style-type: none"> Schools and other institutional buildings, and their outdoor areas and users of recreational facilities where there is incidental enjoyment of the landscape (e.g. golfers) are classed as being of medium sensitivity.
21, 22, 29	Road users (not formally recognised as being scenic)	Low	<ul style="list-style-type: none"> People travelling along roads are classed as being of low sensitivity unless the highway also forms a PRoW, in which case sensitivity would be high.

Future baseline

- 10.3.43 Future built development, changes to land use and vegetation loss could influence the character of the local landscape, the character of existing views and the pattern and extent of visual receptors. Further development would potentially cause cumulative effects when combined with the effects of the project (refer to Chapter 15 Cumulative Effects).

10.4 Design and Good Practice Measures

- 10.4.1 All commitments are listed within the Register of Environmental Actions and Commitments (REAC), which is included within Chapter 16 Environmental Management and Mitigation. Commitments include embedded design measures, good practice measures and mitigation required to reduce potentially significant effects.
- 10.4.2 Chapter 4 Design Evolution provides a summary of the environmental considerations that have influenced the design through this process, with iterative updates and improvements to reach the fixed design submitted for development consent. The embedded design measures have been built into the design, for example through the amendment to the Order Limits to avoid a sensitive feature.
- 10.4.3 With regards to landscape, the alignment of the route has been designed to avoid or reduce impacts on the following features:
- Chawton House and Woburn Farm Registered Parks and Gardens;
 - formal parkland (undesigned) at Brockwood Park;
 - designated Ancient Woodland and Potential Ancient Woodland (undesigned);
 - notable and TPO trees; and
 - substantial woodland blocks.
- 10.4.4 Landscape and visual effects were amongst the factors considered in determining the location of temporary construction compounds, logistics hubs and the above ground infrastructure.
- 10.4.5 This chapter contains a number of project commitments to reduce impacts on the environment. These are indicated by a reference number like this (G20). Good practice measures are set out in the REAC and secured through Development Consent Order requirements such as the Code of Construction Practice.
- 10.4.6 The good practice measures that are most relevant to landscape and visual are listed in Table 10.13. These are applicable to all areas unless stated otherwise. The following assessment is based on these good practice measures being in place.
- 10.4.7 The REAC includes measures referring to locations where reduced working width would apply (NW1 – NW33). References to these locations are provided in brackets where applicable, and the locations are illustrated on Figure 7.5.

Table 10.13: Good Practice Commitments Within the REAC

Ref	Commitment Description
O1	Commitment to only utilise a 10m width when crossing through boundaries between fields where these include hedgerows, trees or watercourses.
O2	Design route alignment to avoid all areas of existing classified Ancient Woodland.
G65	Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures.
G86	Works to notable trees, where at risk of damage, would be supervised by the ECoW.
G87	Vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable.
G88	Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements).
G91	The contractor(s) would retain vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings.
G92	A three-year aftercare period would be established for all mitigation planting and reinstatement.
G93	Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed, with landowner agreement.
G94	Land used temporarily would be reinstated to an appropriate condition relevant to its previous use.
G95	The contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). This would be applied to trees within the Order Limits which would be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction.
G97	Where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements, native shrub planting approved by Esso would be used as a replacement.
G175	For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing.

10.5 Potential Impacts (Without Mitigation)

- 10.5.1 This section reports potential impacts of the project on landscape and views, taking into account the design and good practice measures set out in the REAC, and in Table 10.13. In order to consider a reasonable worst case, the assessment of potential impacts assumes loss of all trees and shrub vegetation within the Order Limits except where the good practice measures set out in Table 10.13 and reduced working widths identified within the REAC dictate otherwise. There is a commitment that the contractor(s) would retain vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings (G91). Therefore, tree loss would be expected to be less than the worst case assumed for the purposes of assessment. Where reinstatement planting is referenced within this section, it relates to commitments G88, G93 and G97 within Table 10.13.



- 10.5.2 Potential landscape and visual impacts arising from pipeline installation have been assessed during construction, post construction year 1 and year 15; and potential impacts arising from pipeline operation have been assessed in year 1 and year 15 following installation. The typical likely impacts considered at each assessment stage are summarised below.
- 10.5.3 During construction: The main source of potential landscape and visual impacts would arise from the installation phase, because once operational, the pipeline would be underground apart from small-scale features. The installation would involve short term disruption to the rural landscape, with the presence of construction vehicles, temporary fencing, stockpiled soils and materials and longer term effects caused by vegetation loss. The installation would be transient so that construction activity would be restricted to short periods of time along each part of the route. Construction compounds and logistics hubs would remain in situ for longer, but would also be temporary. The total duration of construction would be approximately two years. Full details relating to pipeline installation are contained within Chapter 3 Project Description.
- 10.5.4 Post construction year 1: Potential landscape and visual impacts would be caused by the absence of vegetation that would have been removed during installation because reinstatement planting would be unestablished. To provide a comprehensive description of the effects, the likely existence of above ground infrastructure has been given consideration in relevant aspects of the assessment of post construction year 1 effects.
- 10.5.5 Post construction year 15: Reinstatement planting would be established but potential landscape and visual impacts would be caused by this vegetation not being as mature as other surrounding vegetation or because of potential restrictions in the capacity to replant trees, for example where there is built development, close proximity to highways and underground services including the pipeline. To provide a comprehensive description of the effects, the likely existence of permanent above ground infrastructure has been given consideration in relevant aspects of the assessment of post construction year 15 effects.
- 10.5.6 Operation: Operational landscape and visual effects would be limited because the pipeline would be underground. Operational landscape and visual effects consider the effects that would be caused by the above ground infrastructure during the operational phase of the project year 1 and year 15 following installation. To provide a comprehensive description of the operational effects, where relevant, vegetation loss arising from pipeline installation and vegetation reinstatement has been given consideration in the assessment of operational effects.

Construction

- 10.5.7 This section considers the potential effects caused by pipeline installation, and covers the time period during construction and also post construction in years 1 and 15 on:
- Potential Landscape Effects: Landscape Character;
 - Potential Landscape Effects: Landscape Designations; and



- Potential Visual Effects.

Potential Landscape Effects: Landscape Character

- 10.5.8 This introductory section identifies the LCAs that have been assessed in the following paragraphs and describes the structure of the assessment. To avoid repetition throughout the assessment, this section also summarises impacts that would apply consistently throughout the LCAs.
- 10.5.9 Potential landscape effects have been assessed on the NCAs identified in Table 10.6 and on the relevant key characteristics and sensitivities of the South Downs Integrated LCAs identified in Table 10.7. The overall landscape impacts have been described for the NCAs and against the relevant key characteristics and sensitivities of the South Downs Integrated LCAs, before an assessment of impact has been made during construction and post construction in years 1 and 15.
- 10.5.10 Potential landscape impacts have been informed by the arboricultural assessment of notable trees. Notable trees within the Order Limits or immediately adjacent to it are identified in Appendix 10.2 Schedule of Notable Trees. A precautionary approach was taken to the identification of notable trees where surveyed as tree groups and woodlands, in that not every tree within the group may be notable; it is anticipated that the requirement for the contractor to produce vegetation clearance plans (G87) would afford an opportunity to evaluate trees within groups to identify individual notable trees for retention where practicable.
- 10.5.11 It is not considered that the project would have any bearing on the drivers for change and landscape management and development considerations identified within the SDILCA, because the landscape and visual effects would largely be temporary and the landscape would be reinstated to its former use. Therefore, landscape management and development considerations are not considered any further within the assessment.
- 10.5.12 In year 1 post construction, the line of the route would be evident from the contrast in colour between the existing and recently seeded grass across reinstated areas of pasture and grassland within all character areas, caused by disturbance during construction and establishment of re-seeded areas. However, this would be short term and not significant. Impacts would be localised and would not affect the overall landscape character.

128: South Hampshire Lowlands NCA

- 10.5.13 This is a predominantly rural, farmed landscape where the route crosses open fields enclosed by hedgerows. Hedgerows are a key characteristic of this landscape, and the project would require the removal of localised sections along field boundaries and along the rural lanes that the route crosses. A longer stretch of hedgerow would be lost east of Boorley Green where the route runs along Maddoxford Lane. Potential notable tree loss would include localised areas of tree groups/woodland northwest of Netherhill Farm, along Gregory Lane, east of Mincingfield Lane and trees at Wintershill.



- 10.5.14 However, for trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). This would reduce loss of trees and enable the retention of a strong tree belt which defines Ford Lake northeast of Boorley Green. This woodland includes notable and Potential Ancient Woodland (undesigned).
- 10.5.15 Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65). This would reduce loss of trees east of Durley (NW1).
- 10.5.16 Whilst installation activity would be short term, it would consist of new but uncharacteristic features that would be at odds with the rural character of the landscape. However, temporary construction compounds would be close to, or set within the context of, public highways and have been sited to reduce impacts on trees. Loss of vegetation would cause noticeable damage to the landscape, and would cause impacts of medium duration before reinstatement planting would be established. During construction and in year 1 post construction, the potential magnitude of impact would be medium, and the significance of effect on 128: South Hampshire Lowlands NCA would be moderate.
- 10.5.17 In year 15 post construction, reinstatement planting would have established to restore the landscape. However, it would not be possible to fully reinstate mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact would be negligible, and the significance of effect on 128: South Hampshire Lowlands NCA would be minor.

125: South Downs NCA

- 10.5.18 Promoted PRoWs, which often follow drove roads and ancient routes, are a key characteristic of this landscape. The construction corridor would cross the Monarch's Way, Wayfarer's Walk and the South Downs Way National Trail. The construction corridor would mostly cross promoted PRoWs in areas of open arable land where effects would be temporary, although localised hedgerow loss would be necessary where the route crosses the South Downs Way, and there would be localised loss of trees along the Monarch's Way, Lower Preshaw Lane. Effects on PRoW would largely be temporary and would relate to visual effects as described within Section 10.5 under Potential Visual Effects.
- 10.5.19 This is a predominantly rural, farmed landscape where the route crosses open fields enclosed by hedgerows. Whilst woodland is characteristic of the wider character area, the route has been designed to avoid woodland where possible, including Preshaw Wood, Rabbit Copse and Joan's Acre Wood. Loss of trees, including notable trees west of Ashton and southeast of Joan's Acre Wood, would be reasonably limited. The project would require the removal of localised sections of



hedgerows and strong tree belts along field boundaries and along the rural lanes that the route crosses. However, field size is generally quite large along the route, which limits the extent of field boundary vegetation that would be affected.

- 10.5.20 Assessment of potential impacts on the relevant key characteristics and sensitivities of the more detailed SDILCA LCAs D1a and D1b, both of which share many key characteristics and fall within 125: South Downs NCA, is presented below.

SDILCA LCAs D1a South Winchester Downland Mosaic (Enclosed) and D1b South Winchester Downland Mosaic (Open)

- 10.5.21 The large-scale rolling landform and the rural, secluded character would not be affected because the project largely involves temporary construction effects. The route avoids medieval assarts identified in the Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017) within D1a and D1b. There would be loss of localised sections of hedgerow, but this would not affect the overall landscape pattern. The sense of enclosure would be affected to a limited extent because the loss of boundary hedgerows would be restricted to localised sections which would be reinstated. The route has been designed to avoid Ancient Woodland and affects limited woodland vegetation within this area. Therefore, the strong pattern of woodland cover would not be affected.
- 10.5.22 The route has also been designed to avoid chalk grassland, and there would be no impacts on this characteristic feature (impacts relating to habitat types and biodiversity are addressed in further detail in Chapter 7 Biodiversity). The route avoids the minor designed landscapes located within the character area (impacts relating to heritage features are addressed in further detail in Chapter 9 Historic Environment). Effects on PRow would largely be temporary and would relate to visual effects as described in Section 10.5 under Potential Visual Effects. Visual impacts on views from Beacon Hill are addressed by Representative Viewpoints 14 and 15 and are described within Appendix 10.3 Visual Impact Schedule.
- 10.5.23 The overall potential impacts during construction and in years 1 and 15 post construction on D1a South Winchester Downland Mosaic (Enclosed) and D1b South Winchester Downland Mosaic (Open) would be consistent with those for 125: South Downs NCA, and are summarised in the following paragraphs.
- 10.5.24 Whilst installation activity would be short term, it would consist of new but uncharacteristic features that would be at odds with the rural character of the South Downs. However, temporary construction compounds would be close to public highways and have been sited to reduce impacts on trees. Whilst limited because of the large field size and subsequently limited number of field boundary hedgerows affected, vegetation lost during construction would cause slight damage to the existing landscape. Taking into consideration the short term construction impacts and vegetation loss which would cause impacts of medium duration before reinstatement planting would be established, the potential magnitude of impact during construction would be medium, and the significance of effect would be moderate.
- 10.5.25 The potential effects on the landscape caused by vegetation lost during construction would remain evident post construction and would cause impacts of medium



duration before reinstatement planting would be established. However, given the reasonably limited extent of vegetation that would be lost, potential impacts in year 1 post construction would be less significant than those during the construction period because installation activity would no longer contribute towards the overall effects. In year 1 post construction, the potential magnitude of impact would be small, and the significance of effect would be moderate.

- 10.5.26 In year 15 post construction, reinstatement planting would have established to restore the landscape. However, it would not be possible to fully reinstate mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact would be negligible, and the significance of effect would be minor.

130: Hampshire Downs NCA

- 10.5.27 This is a predominantly rural, farmed landscape where the route crosses open fields. However, loss of vegetation would include loss of localised sections of hedgerow, which are a key characteristic of this landscape, along field boundaries and rural lanes. Sections of distinctive and strong tree lines and tree belts would be lost. For example, localised sections of strong tree belts around historical assarts northwest of West Tisted would be removed, although the route utilises gaps within this vegetation where available. Localised areas of woodland would be lost including notable trees northwest of Brockwood Park and Godwin's Plantation and between Holm Wood and Three Acre Copse, and localised woodland south of Holm Wood. The route would cross Froyle Park (undesigned), Upper Froyle, and although impacts would largely be temporary and insignificant, there would be some localised loss of distinctive, notable, parkland trees and boundary trees.
- 10.5.28 However, for trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). This would reduce loss of trees. In particular, this would avoid Potential Ancient Woodland (undesigned) south of Brockwood Park at Brockwood Bottom, and TPO trees southeast of Bramdean along Petersfield Road and the probable historic boundary of Brockwood Park.
- 10.5.29 Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65). This would reduce loss of woodland including where the route runs through a strong woodland belt and notable tree group/woodland northwest of Farringdon (NW3), woodland north of Froyle (NW4 and NW5) and at Dippenhall Road (NW6).
- 10.5.30 Assessment of potential impacts on the relevant key characteristics and sensitivities of the more detailed SDILCA LCAs D3a (falls mostly within 130: Hampshire Downs



NCA, although the southern extent falls within 125: South Downs), C1 and D4a is presented below.

SDILCA LCA D3a Bramdean and Cheriton Downland Mosaic (Enclosed)

- 10.5.31 The overall character of the chalk downland landscape would not be affected because the project largely involves temporary construction effects. There would be localised areas of tree and hedgerow loss including localised vegetation loss surrounding medieval assarts northwest of West Tisted identified in the Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017). However, the route has been designed to avoid Ancient Woodland and affects limited woodland vegetation within this LCA.
- 10.5.32 There would be no impacts on the settlement pattern and no significant impacts on the rural character of the villages because the project largely involves temporary construction effects. Effects on PRoW would largely be temporary and would relate to visual effects as described in Section 10.5 under Potential Visual Effects. Areas of registered common land, including at Bramdean Common, would not be directly affected within this LCA.
- 10.5.33 There would be no direct impacts on any of the minor designed landscapes located within the LCA. Whilst the route runs approximately 20m south of Brockwood Park at the closest point, there would be no significant effects on the formal parkland (undesigned) as described in more detail in Section 10.5 under Potential Landscape Effects: Landscape Designations and by Representative Viewpoint 18a (Appendix 10.3).

SDILCA LCA C1 Froxfield Clay Plateau

- 10.5.34 The route crosses this area in two locations: to the north of West Tisted and east of Four Marks.
- 10.5.35 There would be temporary and insignificant impacts during construction on fields of arable and pasture. The route has been designed to avoid Ancient Woodland and affects limited woodland vegetation within this LCA. There would be loss of localised sections of hedgerow and tree belts, although the sense of enclosure would be affected to a limited extent because the loss of boundary hedgerows would be restricted to localised sections which would be reinstated.
- 10.5.36 There would be no impact on the settlement patterns across the LCA because the project largely involves temporary construction effects. Impacts on rural lanes would be temporary except for the localised removal of vegetation where reinstatement planting would take time to establish. Installation activity would cause adverse effects on the strong sense of remoteness, stillness and emptiness within the landscape. However, these effects would be short term and temporary.

SDILCA LCA D4a Newton Valence Downland Mosaic (Enclosed)

- 10.5.37 The overall character of the gently rolling chalk downland landscape, the settlement pattern of nucleated villages and the rural secluded setting of the villages would not be affected because the project largely involves temporary construction effects.



There would be temporary and insignificant impacts during construction on fields of arable and pasture. There would be no impacts on medieval assarts identified in the Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017) within D4a, and the route has been designed to avoid Ancient Woodland and affects limited woodland vegetation within this LCA. However, it is recognised that there would be loss of localised sections of hedgerow and tree belts which would affect the landscape.

- 10.5.38 The route has been designed to avoid chalk grassland and there would be no impacts on this characteristic feature (impacts relating to habitat types and biodiversity are addressed in further detail in Chapter 7 Biodiversity).
- 10.5.39 The route avoids remnant medieval deer parks. There would be no impacts on Jane Austen's former house within Chawton, because built development within Chawton and strong tree cover including woodland within Chawton Park to the east would prevent views between Chawton House and the project. Chawton House Registered Park and Garden would not be directly affected by the project (impacts relating to heritage assets are addressed in further detail in Chapter 9 Historic Environment). Strong woodland along the eastern boundary of the park provided by Noar Copse, Holm Wood, Broadlands Row, Adela Copse and Eastfield Plantation, combined with woodland within the park, would heavily restrict visibility between Chawton Park and the project (refer to Representative Viewpoint 26, Appendix 10.3).
- 10.5.40 The overall potential impacts during construction and in years 1 and 15 post construction on D3a Bramdean and Cheriton Downland Mosaic (Enclosed), C1 Froxfield Clay Plateau and D4a Newton Valence Downland Mosaic (Enclosed) would be consistent with those for 130: Hampshire Downs and are summarised in the following paragraphs.
- 10.5.41 Whilst installation activity would be short term, it would consist of new but uncharacteristic features that would be at odds with the rural character of the landscape. However, temporary construction compounds would be close to public highways and have been sited to reduce impacts on trees. Where it is necessary to connect the compounds to public highways, existing access points would be utilised where practicable to reduce impacts on trees, including at the compound location south of Brockwood Park. There would be temporary logistics hubs west of Ropley Dean and west of Chawton (A31/A32 Junction Northfield Lane, Alton). These would be outside the SDNP and set within the context of the A31 and have also been sited to reduce impacts on trees. The logistics hub at Ropley Dean is approximately 2km north of the SDNP and would be set within the context of the A31, which is lit in this section, and commercial development along the A31. The logistics hub west of Chawton (A31/A32 Junction Northfield Lane, Alton) is within 100m west of the SDNP and approximately 200m west of Chawton Conservation Area. However, the logistics hub would be set within the context of the A31, including a lit roundabout junction (with the A32) which falls between the proposed site for the logistics hub and the SDNP and Chawton. Vegetation along the A31 provides a strong buffer between the proposed logistics hub and the SDNP and Chawton.
- 10.5.42 The loss of vegetation would cause noticeable damage to the existing landscape and would cause impacts of medium duration before reinstatement planting would be established. Some of the vegetation that would be lost during installation is



particularly distinctive, for example where it follows watercourses and where it connects woodland blocks. During construction and in year 1 post construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.

- 10.5.43 Whilst reinstatement planting would have established to restore the landscape, it would not be possible to fully reinstate distinctive, mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact would be small, and the significance of effect would be minor.

120: Wealden Greensand NCA

- 10.5.44 Whilst extensive areas of Ancient Woodland and sweet chestnut coppice are characteristic of the wider character area, the project has been designed to avoid woodland where possible and loss of trees, including notable trees (south and east of Neatham), would be reasonably limited. The route crosses a distinctive PRoW lined with Potential Ancient Woodland (undesigned) along Water Lane, northwest of West Worldham, potentially an ancient droving road or trackway which are characteristic of this landscape. However, effects on the PRoW would largely be temporary and would relate to visual effects as described in Section 10.5 under Potential Visual Effects. There would be negligible effects on trees within the Potential Ancient Woodland (undesigned) because the route would partly utilise an existing farm access. The project would require the removal of localised sections of hedgerow and tree belts along field boundaries and along the rural lanes that the route would cross. However, field size is generally medium to large, which limits the extent of field boundary hedgerows that would be affected.
- 10.5.45 For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). This would reduce loss of trees, in particular where the route would cross the distinctively tree covered River Wey Valley where notable tree groups/woodland are located between the River Wey and the railway line.
- 10.5.46 Whilst installation activity would be short term, it would consist of new but uncharacteristic features that would be at odds with the rural character of the landscape. However, temporary construction compounds would be close to, or set within the context of, public highways and have been sited to reduce impacts on trees. Whilst limited because of the medium to large field size and subsequently limited number of field boundary hedgerows affected, vegetation lost during construction would cause slight damage to the landscape. Taking into consideration the short term construction impacts and vegetation loss, which would cause impacts of medium duration before reinstatement planting would be established, the potential magnitude of impact during construction would be medium, and the significance of effect would be moderate.
- 10.5.47 The effects on the landscape caused by vegetation lost during construction would remain evident in year 1 post construction. However, given the reasonably limited



extent of vegetation that would be lost, potential impacts post construction would be less significant than those during the construction period because installation activity would no longer contribute towards the overall effects. In year 1 post construction, the potential magnitude of impact would be small, and the significance of effect on 120: Wealden Greensand NCA would be moderate.

- 10.5.48 In year 15 post construction, reinstatement planting would have established to restore the landscape. However, it would not be possible to fully reinstate mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact would be negligible and significance of effect on 120: Wealden Greensand NCA would be minor.

129: Thames Basin Lowlands NCA

- 10.5.49 The potential magnitude of impact would be no change and the significance of effect on 129: Thames Basin Lowlands NCA would be negligible at all assessment timeframes because it is situated approximately 700m from the Order Limits, and it would not be physically affected by the project.

129: Thames Basin Heaths NCA

- 10.5.50 Tree cover is a key characteristic of this landscape, and the project would involve the removal of a considerable amount of woodland, especially because the route would run for over 30km through this NCA which is well treed in parts. In particular, there would be loss of notable tree groups/woodlands where the route runs through the Forest of Eversley, through woodland south and east of Frimley and south of Lightwater at Turf Hill. There would be loss of trees across the Blackwater Valley, Westend Common and Chobham Common (including some notable tree groups/woodland) should all trees within the Order Limits be felled by the contractor. There would also be loss of notable tree groups/woodland for the generation of heathland habitat within the Forest of Eversley at Bourley and Long Valley Site of Special Scientific Interest (SSSI) east of Church Crookham, which would add to the overall extent of tree loss. However, it is recognised that this would not be entirely inappropriate because this landscape comprises a characteristic mosaic of woodland and heathland. A precautionary approach was taken to the identification of notable trees where surveyed as tree groups and woodlands, as described in paragraph 10.5.10.

- 10.5.51 Should all trees in the Order Limits be felled, there would be substantial tree loss within recreational areas where trees contribute to the wider landscape, provide amenity value and contribute to the typical setting. For example, there would be loss of trees across golf courses including Oak Park Golf Course, Crondall, and Pine Ridge Golf Course, Frimley (both include trees with TPOs and some notable tree groups/woodland). Trees also provide key characteristic features within the urban area, and losses would significantly affect the character of the urban environment. There would be considerable loss of notable woodland within Queen Elizabeth Park, Farnborough, if the contractor requires all trees in the Order Limits to be felled, which would significantly affect the parkland character. Loss of protected trees (including some notable trees) within the Farnborough Hill Conservation Area would change the character of this landscape, particularly where trees would be lost along Ship Lane which would exacerbate the prominence of traffic along the adjacent roads



from within Farnborough Hill Conservation Area. Tree loss would include trees protected by TPOs, in particular east of Crondall, south of Church Crookham and at Frimley.

- 10.5.52 For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). This would reduce loss of trees and woodland including notable and TPO trees. In particular, tree loss would be reduced within the Forest of Eversley, within the Basingstoke Canal Conservation Area (protected trees), across Chobham Common and within Woburn Hill and Chertsey Meads ALI.
- 10.5.53 Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65). This would reduce loss of trees and woodland including notable and TPO trees. In particular, tree loss would be reduced east of Crondall at Oak Park Golf Course (NW7), southeast of Church Crookham at Naishes Lane (NW8) and south of Sandy Lane (NW9), within the Forest of Eversley and Bourley and Long Valley SSSI (NW11, NW12 and NW13), within the Basingstoke Canal Conservation Area (NW14), along Old Ively Road Farnborough (NW15) and at Cove Brook Rarborough (NW16). Tree loss would also be reduced within Queen Elizabeth Park (NW17), Farnborough Hill Conservation Area (NW18), east of the Blackwater Valley (NW19), at Pine Ridge Golf Course and Frith Hill (NW20) within Westend Common adjacent to The Maultway (NW21), at Turf Hill (NW22) and across and east of Chobham Common (NW23, NW24 and NW25).
- 10.5.54 Installation activity would largely be short term, would often be set within the context of public highways or urban areas, and would be visually contained by the well treed character of the landscape. Temporary construction compounds would be close to, or set within the context of, public highways and/or a largely urban environment and have been sited to reduce impacts on trees. Temporary logistics hubs have also been sited to reduce impacts on trees and would utilise sites within the Thames Basin Heaths NCA that have previously been cleared for other development uses (refer to Chapter 3 Project Description).
- 10.5.55 However, installation activity would cause disruption to the landscape within recreational areas, including the various golf courses, Chobham Common and Queen Elizabeth Park, where it would be at odds with the less urban and more undeveloped character. There would be considerable tree loss, including trees which are protected for their amenity value, because the route would run for over 30km through this NCA which is well treed in parts. This would cause a large impact on the landscape and adversely affect the landscape character along the route, even when taking into account the good practice measures identified in Table 10.13 and the REAC. Tree loss would cause impacts of medium duration before reinstatement planting would be established. During construction and in year 1 post

construction, the potential magnitude of impact would be large, and the significance of effect on 129: Thames Basin Heaths NCA would be moderate.

- 10.5.56 There may be less scope to accommodate reinstatement of trees within the wider urban area because of restrictions caused by built development, proximity to highways and underground services for example. Whilst planting trees may not be possible in some localised areas, reinstatement planting would establish to restore the overall landscape character. However, it would not be possible to fully mitigate the potential permanent loss of TPO trees or to replace mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact would be small, and the significance of effect on 129: Thames Basin Heaths NCA would be minor.

115: Thames Valley NCA

- 10.5.57 Trees provide key characteristic features within the urban area, and losses would significantly affect the character of the urban environment. The character and amenity of streetscapes would be affected by loss of trees in some areas, in particular along Woodthorpe Road, Ashford, and east of Short Lane, West Bedfont (notable trees). There would be loss of notable trees within Fordbridge Park, Ashford, and consequent substantial changes to the parkland character. Woburn Hill and Chertsey Meads ALI would experience short term effects of significance as a result of disruption to the landscape during construction. Vegetation loss would be limited within the ALI, but would include a localised area of notable trees. A localised area of notable TPO trees would also be removed to accommodate Valve 14 east of Ashford Road, and TPO trees would be removed within the grounds of St James' Senior Boys School, Ashford.
- 10.5.58 For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or where ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). This would reduce loss of trees, including notable trees at Dumpsey Stump close to The Thames within Woburn Hill and Chertsey Meads ALI, notable trees within Fordbridge Park where the route crosses the A308 and TPO trees south of St James' Senior Boys School, Ashford.
- 10.5.59 Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65). This would reduce loss of trees within Woburn Hill and Chertsey Meads ALI (NW29) and notable trees within Fordbridge Park (NW30).
- 10.5.60 Construction effects would largely be temporary and would predominantly be set within the context of public highways or urban areas, fragmented areas of landscape associated with gravel extraction, and major highways including the M3, A308 and A30. Temporary construction compounds would be close to, or set within the context of, public highways and/or an urban environment and have been sited to reduce



impacts on trees. The temporary logistics hub at Shepperton (Brett Aggregates, Littleton Lane) has also been sited to reduce impacts on trees and would utilise an area currently undergoing mineral extraction.

- 10.5.61 However, tree loss within this area would cause noticeable damage to the landscape, and would cause impacts of medium duration before reinstatement planting would be established. During construction and in year 1 post construction, the overall potential magnitude of impact would be medium, and the significance of effect on 115: Thames Valley NCA would be moderate.
- 10.5.62 There are restrictions to planting trees over and around pipeline easements. There may be less scope to accommodate reinstatement of trees within the wider urban area because of restrictions caused by built development, proximity to highways and underground services for example. Whilst planting trees may not be possible in some localised areas, reinstatement planting would establish to restore the overall landscape character. However, it would not be possible to fully mitigate the potential permanent loss of TPO trees or to replace mature vegetation and notable trees within 15 years. In year 15 post construction, the magnitude of impact would be small, and the significance of effect on 115: Thames Valley NCA would be minor.

Summary of Potential Effects on Landscape Character

- 10.5.63 Table 10.14 provides a summary of the potential effects on NCAs and LCAs identified within the SDILCA arising from pipeline installation. In year 15, when reinstatement planting would be established, there would be no significant effects on landscape character.



Table 10.14: Summary of Potential Impacts on Landscape Character arising from Pipeline Installation

NCA	South Downs Integrated LCA	Landscape Sensitivity	Construction		Year 1		Year 15	
			Magnitude of Impact	Significance of Effect	Magnitude of Impact	Significance of Effect	Magnitude of Impact	Significance of Effect
128: South Hampshire Lowlands	n/a	High	Medium	Moderate	Medium	Moderate	Negligible	Minor
125: South Downs	D1a South Winchester Downland Mosaic (Enclosed) and D1b South Winchester Downland Mosaic (Open)	High	Medium	Moderate	Small	Moderate	Negligible	Minor
130: Hampshire Downs	D3a Bramdean and Cheriton Downland Mosaic (Enclosed)	High	Medium	Moderate	Medium	Moderate	Small	Minor
	C1 Froxfield Clay Plateau							
	D4a Newton Valence Downland Mosaic							
120: Wealden Greensand	n/a	High	Medium	Moderate	Small	Moderate	Negligible	Minor
114: Thames Basin Lowlands	n/a	Medium	No change – Not directly affected	Negligible – Not directly affected	No change – Not directly affected	Negligible – Not directly affected	No change – Not directly affected	Negligible – Not directly affected
129: Thames Basin Heaths	n/a	Medium	Large	Moderate	Large	Moderate	Small	Minor
115: Thames Valley	n/a	Medium	Medium	Moderate	Medium	Moderate	Small	Minor



Potential Landscape Effects: Landscape Designations

- 10.5.64 This section presents the potential landscape effects on landscape designations and features that would arise from pipeline installation. Potential landscape effects have been assessed during construction and post construction years 1 and 15 on the SDNP, local landscape designations, formal parkland (undesigned) at Brockwood Park, Ancient Woodland and TPOs, common land and country parks.
- 10.5.65 Within the assessment of Potential Landscape Effects: Landscape Designations, 'post construction' is used to refer to effects in both years 1 and 15 unless otherwise specified.

South Downs National Park

Tranquillity

- 10.5.66 Installation activity including movement of construction plant and vehicle deliveries, construction compounds, stockpiled soils and materials, vegetation removal and the presence of temporary fencing would affect tranquillity.
- 10.5.67 However, effects would be temporary and of short duration because of the transient nature of the construction along the route. The construction schedule has yet to be developed in detail, as this would be undertaken during the detailed design stage. For the purposes of assessment, a short-term duration is assumed to be less than six months based on the criteria set out in Chapter 3 Project Description. Replacement of topsoil and replanting of vegetation would take place at a seasonally suitable time after the works had been completed.
- 10.5.68 Effects at temporary construction compound locations would also be temporary but would be of longer duration. Construction compounds would be close to, or set within the context of, public highways which would help restrict impacts on tranquillity. The two nearest proposed logistics hubs are located outside the SDNP, and are located close to the A31 where impacts on tranquillity would be limited. The total duration of construction would be approximately two years.
- 10.5.69 During construction, effects on tranquillity within the SDNP would not be significant because they would be largely transient and of short duration.
- 10.5.70 Post construction, there would be no impacts on tranquillity because the above ground infrastructure would be small in scale. Landscape and visual impacts that would be caused by the above ground infrastructure are addressed under Operation.

Dark Skies

- 10.5.71 Details relating to lighting are included within Chapter 3 Project Description. All lighting would be of the lowest luminosity necessary for safe delivery of each task. It would be designed, positioned and directed to reduce the intrusion into adjacent properties and habitats (G45). Temporary lighting would affect the dark skies in rural locations away from settlements and major roads. However, effects within the SDNP would be restricted to the temporary construction period.



10.5.72 The study area does not coincide with the Dark Sky Core as defined within the Dark Skies Technical Advice Note (SDNPA, 2018), and the closest darkest skies area (identified by SDNPA) within the South Downs is approximately 5km to the east of the Order Limits at Old Winchester Hill. Given the distance to this particular area, and the short and temporary nature of lighting effects, lighting would not cause potential effects of significance on the SDNP including on the darkest skies.

Woodland and Hedgerows

10.5.73 The route has been designed to avoid designated Ancient Woodland in accordance with the overarching commitment to design route alignment to avoid all areas of existing classified Ancient Woodland (O2), and to avoid Potential Ancient Woodland (undesigned) if possible. Impacts on Ancient Woodland are described in paragraphs 10.5.90 – 10.5.92.

10.5.74 The route has also been designed to avoid other woodland where possible, and to avoid and reduce impacts on individual and groups of notable trees. To further reduce damage to woodland, the contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). This would be applied to trees within the Order Limits which would be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction (G95).

10.5.75 Notable trees within or immediately adjacent to the Order Limits are identified in Appendix 10.2. A precautionary approach was taken to the identification of notable trees where surveyed as tree groups and woodlands, as described in paragraph 10.5.10.

10.5.76 Within the SDNP, loss of woodland would be limited and would comprise the following key areas:

- localised peripheral loss of notable woodland southeast of Joan's Acre Wood (outside the designated Ancient Woodland);
- localised loss of notable woodland at Godwin's Plantation, northwest of Brockwood Park (applies to both route sub-options), although eastern option A2b has been designed to reduce loss by partly utilising an existing gap between woodland blocks;
- localised loss of notable woodland belt northwest of Lower Farringdon. The following commitment would reduce woodland loss in this location (Farringdon NW3): Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65); and
- localised loss of woodland east of Chawton House Registered Park and Garden, to the south and east (notable) of Holm Wood, although the Order Limits have been narrowed east of Holm Wood to reduce impacts on woodland.



- 10.5.77 Taking into account the limited extent of woodland that would be affected within the SDNP, and the commitments for reinstatement which would be established by year 15, it is not considered that there would be significant effects on woodland within the SDNP.
- 10.5.78 The loss of localised sections of hedgerow would be unavoidable, and this would include loss of sections of Important Hedgerows (addressed in further detail in Schedule 10 Removal of Important Hedgerows). Field boundary hedgerows and hedged lanes are a key characteristic of the SDNP. Although hedgerow loss would be reduced through the overarching commitment to only utilise a 10m width when crossing through boundaries between fields where these include hedgerows, trees or watercourses (O1), there would be cumulative loss of hedgerow vegetation within the Order Limits within the SDNP overall (refer to Chapter 7 Biodiversity). However, there would be no impact on the overall field pattern because loss of hedgerow vegetation would be restricted to localised sections which would be reinstated after pipeline installation. Impacts on hedgerows within the Order Limits would be significant during construction and post construction year 1. However, hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed, with landowner agreement (G93), and there would be no significant effects on hedgerows by year 15 post construction when reinstatement planting would be established.

Topography

- 10.5.79 Temporary installation activity, such as excavation and stockpiles of soil, would cause minor changes to the topography along the Order Limits within the SDNP. However, these would be temporary changes of short duration which would not cause significant effects. Post construction, the topography would be reinstated to the original contours. There would be no significant effects on topography.

Summary of Potential Impacts on the SDNP Arising from Pipeline Installation

- 10.5.80 Effects on the SDNP would be restricted to the route and immediate surroundings, which comprises a narrow corridor in the context of the wider extent of the SDNP.
- 10.5.81 Taking account of all of the factors within the SDNP considered above and combining temporary construction effects with vegetation loss which would cause impacts of medium duration before reinstatement planting would be established, the potential magnitude of impact on the SDNP during construction would be medium and the significance of effect would be moderate.
- 10.5.82 In year 1 post construction, the loss of trees and hedgerow vegetation within the SDNP would remain evident after the construction period. Whilst the route has been designed to avoid woodland where possible, the loss of trees and hedgerow vegetation and subsequent localised changes to the landscape character along the route within the SDNP would be noticeable. In year 1 post construction, the potential magnitude of impact on the SDNP would be medium and the significance of effect would be moderate.
- 10.5.83 Reinstatement planting would have established by year 15 to restore the landscape and reduce the impacts on the SDNP. However, it would not be possible to fully



mitigate the loss of mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact on the SDNP would be small and the significance of effect would be minor.

Local Landscape Designations

- 10.5.84 Within Woburn Hill and Chertsey Meads ALI, the route runs through an area of largely flat open grassland. Temporary installation activity with the presence of construction plant, construction compound, temporary fencing and stockpiled soils and materials would cause disruption to the landscape and would be at odds with the existing character. The Order Limits largely run through grassed open space. Loss of vegetation would be localised but would include an area of notable trees. Trees along the Bourne and the Thames (Dumpsey Stump) would largely be retained due to the trenchless installations in these locations (TC033 and TC034). For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). A commitment to a reduced working width (NW29) also applies within Woburn Hill and Chertsey Meads ALI, which would reduce loss of trees.
- 10.5.85 Construction impacts would be of short duration, although vegetation loss would cause medium to long term effects. The potential magnitude of impact during construction would be medium and the significance of effect would be moderate.
- 10.5.86 In year 1 post construction, localised tree loss would cause very limited change to the character of the landscape and would not affect the overall character of Woburn Hill and Chertsey Meads ALI. The potential magnitude of impact would be small and the significance of effect would be minor. Reinstatement planting would have established by year 15 to restore the landscape. In year 15 post construction, the potential magnitude of impact and significance of effect on the locally designated landscape would be negligible.

Formal Parkland (undesigned) at Brockwood Park Krishnamurti Centre

- 10.5.87 For Eastern sub-option A2b the route would not affect Brockwood Park directly, although it would clip the southwestern corner of what has been defined as formal parkland at Brockwood Park within the SDNP Historic Landscape Characterisation Report, South Downs National Park (Wyvern Heritage and Landscape, 2017). Potential Ancient Woodland (undesigned) on the boundary of the formal parkland along Brockwood Bottom would largely be retained because of the use of trenchless installation (TC003). For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). The arable field north of Brockwood



Bottom does not visually form part of the parkland landscape at Brockwood Park, which displays a typical parkland character of specimen trees within grass.

- 10.5.88 During construction, temporary activity to the south and west of Brockwood Park, would cause indirect effects on Brockwood Park in terms of impacts on localised views (Representative Viewpoint 18a) and tranquillity. However, these effects would be short term and not significant. During construction, the potential magnitude of impact would be small and the significance of effect would be minor. Post construction, the potential magnitude of impact would be no change and significance of effect would be negligible.
- 10.5.89 For western sub-option 2Aa the route would run over 200m west of Brockwood Park at the closest point, beyond intervening hedgerow boundaries, substantial tree belts and woodland blocks. During construction, there would be a negligible magnitude of impact and minor significance of effect on localised views (Representative Viewpoint 18a) and tranquillity. Post construction, the potential magnitude of impact would be no change and significance of effect would be negligible.

Ancient Woodland and TPOs within 15m of the Order Limits

- 10.5.90 The route has been designed, and the Order Limits have been refined and narrowed, to avoid designated Ancient Woodland in accordance with the overarching commitment to design route alignment to avoid all areas of existing classified Ancient Woodland (O2).
- 10.5.91 Potential Ancient Woodland (undesigned) has also been identified, and the route has been designed to avoid this woodland if possible. Potential Ancient Woodland (undesigned) falls within the Order Limits in the following locations:
- west of Nether Hill Lane along Ford Lake Stream, northeast of Boorley Green. Trenchless crossing TC001 applies here, therefore effects would be negligible. For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175).
 - west of Brown Heath, north of Gregory Lane. Potential Ancient Woodland (undesigned) very slightly encroaches within the Order Limits. There would be negligible effects on Potential Ancient Woodland (undesigned) because the contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). This would be applied to trees within the Order Limits which would be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction (G95).



- west of Ashton. Potential Ancient Woodland (undesigned) is included within the Order Limits for ecological mitigation and would not involve loss of woodland (refer to Chapter 7 Biodiversity).
- south of Brockwood Park along Brockwood Bottom. Trenchless crossing TC003 applies here, therefore effects would be negligible. For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175).
- along Water Lane northwest of West Worldham. There is potential for small scale tree loss and/or works within the root protection area in this location, but the effect would be negligible. In addition, because the Order Limits include an existing field access between trees, it is likely that this would be utilised at least in part, for the works.
- Neatham Down, west of Monk Wood. Potential Ancient Woodland (undesigned) is largely included within the Order Limits for ecological mitigation and not pipeline installation (refer to Chapter 7 Biodiversity). There would be negligible effects on Potential Ancient Woodland (undesigned) because the narrow Limit of Deviation for pipeline installation in this location utilises a gap between trees, although the root protection area may be encroached to some extent.
- east of Crondall, south of Heath Lane. Potential Ancient Woodland (undesigned) very slightly encroaches within the Order Limits. There would be negligible effects on Potential Ancient Woodland (undesigned) because the contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). This would be applied to trees within the Order Limits which will be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction (G95).
- west of Ewshot Wood. There would be negligible effects on Potential Ancient Woodland (undesigned) because narrow working would apply here (NW33), and the haul road and pipe installation would utilise an existing 5m gap between two areas of ancient woodland above a culvert.
- Silverlands, west of Addlestone and south of B386. Trenchless crossing TC028 applies here, therefore effects would be negligible. For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175).



- 10.5.92 Potential impacts on Ancient Woodland would be localised and would be restricted by the parameters set by the good practice measures identified within Table 10.13 and the REAC. The magnitude of impact and significance of effect on Ancient Woodland would be negligible at all assessment timeframes.
- 10.5.93 Works to TPO trees are addressed in Schedule 8 Trees Subject to Tree Preservation Orders. Impacts on TPO trees and protected trees within Conservation Areas have been reduced where possible through the route design and through the application of good practice measures identified within Table 10.13 and the REAC.
- 10.5.94 Working widths would be reduced in specific locations where trees or hedges are present. Where notable trees would be retained within or immediately adjacent to the Order Limits, the trees and their root protection areas would be protected where they extend within the Order Limits and are at risk. This would be by means of fencing or other measures (G65). This would reduce loss of TPO trees including east of Crondall at Oak Park Golf Course (NW7), southeast of Church Crookham at Naishes Lane (NW8) and south of Sandy Lane (NW9) and Frith Hill, south of Frimley at Pine Ridge Golf Course (NW20). This would also reduce loss of protected trees within Farnborough Hill (NW18) and Basingstoke Canal (NW14) Conservation Areas.
- 10.5.95 For trenchless crossings TC001 to TC015, TC019, TC021 to TC028, TC030 to TC040, vegetation would be retained except where emergency access is required to trenchless equipment or ecological works have been proposed. At TC029 vegetation would be retained to the east of Hardwick Lane but not to the west side due to the requirement for access. At TC016, TC017 and TC018, there would be limited removal of vegetation along the alignment of the existing pathway to allow for pipe stringing (G175). This would enable the retention of TPO trees including along the A272 and probable historic boundary of Brockwood Park, along Accommodation Road and Longcross Road west of Addlestone and south of St James' Senior Boys School, Ashford. This would also enable the retention of protected trees within parts of Farnborough Hill and Basingstoke Canal Conservation Areas.
- 10.5.96 There would be loss of TPO trees and protected trees within Conservation Areas, including at the following key locations:
- within group TPOs east of Crondall at Oak Park Golf Course. The southern group TPO covers various sections of woodland copses and linear belts across Oak Park Golf Course which would be affected. A commitment to a reduced working width (NW7) applies here and would reduce loss of TPO trees. The northern group TPO covers a linear belt of woodland located along the southern side of Heath Lane, within Oak Park Golf Club. The Order Limits are narrow where they coincide with trees south of Heath Lane, so that loss of TPO trees would be localised;
 - within group TPO south of Church Crookham. Whilst this is a large group TPO, tree coverage is varied and the Order Limits would cover some open fields where there are fewer trees. There would be loss of trees within the area, although this would be reduced where there are commitments for reduced working width at Naishes Lane (NW8) and south of Sandy Lane (NW9);



- within group TPO south of Frimley. The Order Limits would run along Balmoral Drive and within open space so that loss of TPO trees would be reasonably localised;
- within group TPO at Frith Hill, east of Frimley at Pine Ridge Golf Course. The group TPO covers parts of the fairway and linear tree belts, some of which would be affected. A commitment to a reduced working width (NW20) applies here and would reduce loss of TPO trees;
- west of Burrowhill. There would be localised loss of TPO trees within tree belts along Halebourne Lane and Clappers Brook;
- east of Ashford Road. There would be localised loss of TPO trees to accommodate Valve 14 within the linear tree belt east of Ashford Road;
- north of St James' Senior Boys School, Ashford. There would be localised loss of TPO trees around the school boundary. A commitment to a reduced working width applies here and would reduce loss of TPO trees;
- within Basingstoke Canal Conservation Area. The Order Limits would run through a well treed but localised part of Basingstoke Canal Conservation Area. Loss of trees would be localised because commitments for trenchless construction (TC013) and narrowed working width (NW14) apply here; and
- within Farnborough Hill Conservation Area. The Order Limits would run through the periphery of the playing field, scattered trees and trees around the school boundary, and there would be some loss of protected trees. A commitment to a reduced working width (NW18) applies here and would reduce loss of protected trees.

10.5.97 The design of the route and the application of good practice measures, including narrow width working and trenchless crossings set out in the REAC, would reduce the impacts on woodland, TPOs and protected trees within Conservation Areas. Notwithstanding this, the collective remaining loss of TPOs would potentially cause a large magnitude of impact and an effect of major significance during construction and post construction year 1.

10.5.98 Whilst reinstatement planting would establish to reinstate lost vegetation, it would not be possible to fully mitigate the permanent loss of TPO trees and protected trees within Conservation Areas. There would be restrictions to planting trees over and around pipeline easements. There may also be less scope to accommodate reinstatement of trees within the wider urban area because of restrictions caused by built development, proximity to highways and underground services for example. Post construction year 15 the overall potential magnitude of impact on TPO trees would be medium and the significance of effect would be moderate.

Common Land and Open Access Land

10.5.99 There would be short term disruption to a localised part of Chobham Common during construction, caused by the presence of construction vehicles, temporary fencing, stockpiled soils, laydown areas and construction compounds. Whilst temporary, these features would be uncharacteristic and at odds with the undeveloped character of the common. Tree loss would be reduced because commitments for trenchless installations apply to parts of Chobham Common (TC024, TC025 and



TC026). This would largely enable the retention of notable tree groups/woodland at the eastern extent of the common. Commitments to reduced working widths also apply here and would further reduce loss of trees (NW23 and NW24). Whilst loss of trees across Chobham Common would add to the overall extent of tree loss, the common comprises a mosaic of woodland and open heathland. Therefore, whilst the loss of trees would cause a change in views, it would not adversely affect the overall landscape character of the common land.

- 10.5.100 During construction, the potential magnitude of landscape impact on Chobham Common would be small and the significance of effect would be minor. The effects on the landscape caused by vegetation lost during construction would remain evident post construction, but the overall landscape character of the common land would not be adversely affected. Post construction, the potential magnitude of impact and significance of effect would be negligible.
- 10.5.101 A localised part of the southern end of open access land along The Maultway B3015 falls within the Order Limits. This comprises an open layby off The Maultway which appears to be used as informal car parking alongside the highway. Installation activity would be set within the context of the public highway and would not cause significant effects. Landscape impacts would be negligible at all assessment timeframes.
- 10.5.102 The strip of open access land along Red Road B311 comprises trees and scrub immediately south of Red Road and north of West End Common. Installation activity would be set within the context of the public highway and would not cause significant effects. A commitment to reduced working width applies to part of the open access land in this location and would reduce loss of trees (NW21). Loss of trees within this area would not change the overall character of the open access land which is heavily influenced by Red Road. Landscape impacts would be negligible at all assessment timeframes.
- 10.5.103 North of Red Road B311, open access land at Turf Hill comprises a mosaic of woodland and heathland. There would be short term disruption during construction, caused by the presence of construction vehicles, temporary fencing and stockpiled soils. However, these features would be temporary and set within the context of the urban edge of Lightwater, pylons and overhead wires and the public highway to the north. A commitment to reduced working width applies here and would reduce loss of trees (NW22). Tree loss would add to the overall extent of tree loss. However, it would not be out of character because the common comprises a mosaic of woodland and open heathland.
- 10.5.104 During construction, the potential magnitude of landscape impacts on open access land at Turf Hill would be small and the significance of effect would be minor. The effects on the landscape caused by vegetation loss during construction would remain evident post construction, but the overall landscape character of the common land would not be adversely affected. Post construction, the potential magnitude of impact and significance of effect would be negligible.



Country Parks

- 10.5.105 Lightwater Country Park is situated approximately 500m north of the Order Limits and it would not be physically affected by the project. Intervening tree cover within and southeast of the park, along with the urban extent of Lightwater, would screen views towards the route from within the park, including from the promoted lookout point (refer to Representative Viewpoint 47, Appendix 10.3). The magnitude of impact on Lightwater Country Park would be no change and the significance of effect would be negligible at all assessment timeframes.
- 10.5.106 Bedfont Lakes Country Park is situated over 400m east of the Order Limits and it would not be physically affected by the project. Intervening tree cover within the park and to the west, along with intervening built development at West Bedfont, would screen views towards the route from within the park (refer to Representative Viewpoint 63, Appendix 10.3). The magnitude of impact on Bedfont Lakes Country Park would be no change and the significance of effect would be negligible at all assessment timeframes.

Summary of Potential Impacts on Landscape Designations Arising from Pipeline Installation

- 10.5.107 Table 10.15 provides a summary of potential impacts on landscape designations arising from pipeline installation. In year 15, when reinstatement planting would be established, there would be no significant effects on landscape designations and features with the exception of impacts on TPO trees.



Table 10.15: Summary of Potential Impacts on Landscape Designations arising from Pipeline Installation

Designation or Feature	Landscape Sensitivity	Construction		Year 1		Year 15	
		Magnitude of Impact	Significance of Effect	Magnitude of Impact	Significance of Effect	Magnitude of Impact	Significance of Effect
SDNP	High	Medium	Moderate	Medium	Moderate	Small	Minor
Local landscape designations: Woburn Hill and Chertsey Meads ALI	Medium	Medium	Moderate	Small	Minor	Negligible	Negligible
Formal parkland (undesigned) at Brockwood Park Krishnamurti Centre - Eastern option	Medium	Small	Minor	No change	Negligible	No change	Negligible
Formal parkland (undesigned)at Brockwood Park Krishnamurti Centre - Western option	Medium	Negligible	Minor	No change	Negligible	No change	Negligible
Ancient Woodland	High	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Tree Preservation Orders (TPOs)	High	Large	Major	Large	Major	Medium	Moderate
Common land/open access land: Chobham Common Open access land: Turf Hill	Medium	Small	Minor	Negligible	Negligible	Negligible	Negligible
Open access land along the Maultway B3015 and along Red Road B311	Medium	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible
Country Parks	Medium	No change	Negligible	No change	Negligible	No change	Negligible



Potential Visual Effects

- 10.5.108 Potential Visual Effects that would arise from pipeline installation have been assessed against Representative Viewpoints selected throughout the study area during construction and post construction years 1 and 15. A summary of the potentially significant visual effects (i.e. moderate adverse or greater) assessed from the Representative Viewpoints in Appendix 10.1 are presented in this section. Post construction effects would not be significant unless where described.
- 10.5.109 Full details of visual effects from all Representative Viewpoints at each assessment timescale are contained in Appendix 10.3. In year 15, when reinstatement planting would be established, there would be no significant effects from the Representative Viewpoints assessed.

Section A

- 10.5.110 From Representative Viewpoint 3 (Maddoxford Lane, Boorley Green), there would be close and open views of temporary construction activity, the construction compound and associated lighting and removal of a localised section of the hedgerow along Maddoxford Lane. Whilst effects would be localised and would largely be of short duration, views of construction activity and the compound would be prominent from Maddoxford Farm. However, effects would be experienced by few people over a limited area. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.111 From Representative Viewpoint 4 (PRoW south of Hill Farm), there are open views across large and gently undulating arable fields surrounded by dense vegetation along watercourses to the southwest (Ford Lake) and southeast. Temporary fencing, movement of construction vehicles and topsoil siding would be prominent within the view for a limited duration. Localised loss of hedgerow west of Netherhill Farm would also be visible. During construction, the potential magnitude of impact would be medium and the significance of effect would be moderate.
- 10.5.112 From Representative Viewpoint 5 (Gregory Lane, Brown Heath), construction activity, construction compounds and associated lighting would be prominent within the immediate view. Whilst effects would be localised and would largely be of short duration, views of construction activity and the compounds would be prominent in the view. However, effects would be experienced by few people over a limited area. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.113 From Representative Viewpoint 6 (Pilgrim's Trail Long Distance Path, Wintershill), there would be close views of construction activity but for a short duration. Loss of hedgerows along Winters Hill would increase the visibility of the road and open up views towards the construction compound and associated lighting proposed south of Wintershill Farm. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.114 Views from Representative Viewpoints 7a (PRoW northwest of Bishops Waltham and Newtown, within SDNP) and 8 (Monarch's Way Long Distance Path, southeast



of Upham, within SDNP) views are across open, large scale arable fields. There would be close and open views of construction activity, which would degrade the character and scenic quality of these open views, but for a short duration. Localised loss of hedgerow vegetation would be visible where the route runs across Winchester Road, Cross Lane and Peak Lane. From Representative Viewpoint 7a, the construction compound and associated lighting would be evident adjacent to Winchester Road. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.

- 10.5.115 From Representative Viewpoint 10 (Wayfarer's Walk Long Distance Path, Betty Mundy's Bottom, within SDNP), the gently undulating landform and field boundary vegetation to the north and west and mixed evergreen and deciduous species woodland to the east curtail views and make the landscape around this section of the Wayfarer's Walk very intimate. Construction activity would be visible along the ridgeline to the northwest of the footpath, partially concealed by landform towards the southwest. Localised loss of hedgerow vegetation where the pipeline crosses field boundaries would be visible. During construction, the potential magnitude of impact would be small, and the significance of effect would be moderate.
- 10.5.116 A gap within the strong hedgerow that lines the Wayfarer's Walk between Lomer Farm and Rabbit Copse reveals a glimpsed view at Representative Viewpoint 11a (Wayfarer's Walk Long Distance Path, southwest of Lomer Farm, within SDNP) of undulating arable farmland, with a medium scale field pattern contained by strong hedgerow boundaries and woodland blocks across Preshaw Down. There would be close views of temporary construction activity and loss of a small section of hedgerow within the immediate view, although views would be contained to this limited gap within the hedgerow. During construction, the potential magnitude of impact would be small, and the significance of effect would be moderate.
- 10.5.117 From Representative Viewpoint 16 (PRoW southeast of Kilmeston, within SDNP), there would be close views of construction activity from a short section of the PRoW within the valley. Views east would be contained by the rising topography and a strong Ancient Woodland block, but views south would extend along the valley towards Rooksgrove Farm. Localised loss of sections of field boundary hedgerows would be evident to the south. During construction, the potential magnitude of impact would be medium and the significance of effect would be moderate.

Section B

- 10.5.118 From Representative Viewpoint 20 (Clinkley Road Byway, west of West Tisted, within SDNP), there are open, panoramic views across the large scale, undulating arable landscape framed by woodland at Bramdean Common to the west. Long distance views are available to the southwest. Construction activity would be prominent where it crosses Clinkley Road byway, and views along the construction corridor would extend southwest but for a short duration. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.119 There are open, panoramic views to the south across a large scale, agricultural landscape from Representative Viewpoint 23 (PRoW south of Kitwood Lane), framed by woodland at Kitwood Plantation and Dogford Farm. There would be close



and open views of construction activity to the south, and some localised loss of vegetation would be evident along Kitwood Lane. Intervening vegetation along Kitwood Lane would filter views north. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.

- 10.5.120 There are panoramic views from Representative Viewpoint 25 (PRoW north of Upper Farringdon, within SDNP) across large scale arable farmland divided by hedgerows and framed by Ancient Woodland at Noar Copse to the north and by Jubilee Clump to the west. There would be open views of construction activity in the foreground and movement of construction vehicles east edge of Jubilee Clump for a limited duration. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.121 From Representative Viewpoint 27 (PRoW, Whitehouse Farm, within SDNP), there would be close and open views of construction activity where the route would cross pasture west of Whitehouse Farm, but for a short duration. Whitehouse Farm would block views of the construction activity to the north of Selborne Road, including the construction compound. Localised loss of vegetation north of the PRoW would open up views of traffic along Selborne Road. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.

Section C

- 10.5.122 From Representative Viewpoint 28 (Hangers Way Long Distance Path, Neatham Down), there are open views across the undulating arable landscape with strong woodland blocks comprising Monk Wood to the northeast and plantations. There would be close and open views from a limited section of the PRoW of construction activity to the east and south, but for a short duration. The rising landform of Neatham Down to the north would screen views of the construction corridor where it runs north of Hangers Way. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.123 Part of St Swithun's Way runs along a northern section of Froyle Park (undesigned). From Representative Viewpoint 30 (St Swithun's Way Long Distance Path, Upper Froyle), there would be close and open views of construction activity crossing the pastoral parkland landscape for a short duration. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.124 The construction corridor would run parallel with St Swithun's Way at Representative Viewpoint 31 (St Swithun's Way Long Distance Path, south of Lower Froyle), and there would be close views of construction activity where it runs through the arable field adjacent to the PRoW for a short duration. Localised loss of the hedgerow boundary to the north would open up views of traffic along the road north of the field. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.125 From Representative Viewpoint 32 (PRoW at Bury Court), views are open and panoramic across the undulating farmland landscape. There would be open views of construction activity for a short duration. During construction, the potential



magnitude of impact would be medium, and the significance of effect would be moderate.

- 10.5.126 From Representative Viewpoint 34a (Dippenhall Street and southern residential edge of Crondall Conservation Area) on the southern residential edge of Crondall Conservation Area, there would be close views of construction activity where it would cross farmland to the west of Dippenhall Street. Localised loss of a section of hedgerow along the PRow to the west would be visible but would not alter the overall character of the view available from Crondall. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.

Section D

- 10.5.127 From Representative Viewpoint 35a (A287, southeast of Dares Farm), there would be prominent views of construction activity including movement of construction vehicles and the construction compound and associated lighting south of the A287. However, the landform falls to the south of the A287 which would limit views of construction activity, and intervening vegetation along the road and trees around nurseries to the north of the A287 would also restrict views north. Localised removal of trees along the A287 and a large tree within the pasture field to the south of the road would be visible. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.128 There would also be prominent views from Representative Viewpoint 36a (PRow northwest of Ewshot Recreation Ground). Removal of mature trees along the southwestern and northwestern edges of the field, and scattered young trees within the field, all protected by TPO, would be visible and would affect the local tranquillity as perceived from within this area. Localised loss of trees along the lane to the west would also be evident. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.

Section E

- 10.5.129 From Representative Viewpoint 39 (PRow across former Southwood Golf Course, Southwood), views are generally contained by trees surrounding the former golf course, although there are filtered glimpses through intervening trees to solar panels on the roof of the Premier Inn to the northwest and traffic and residential properties to the west. There would be close and open views of temporary construction activity from the western part of the PRow for a short duration. Removal of mature trees within the former golf course would be apparent. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.130 From Representative Viewpoint 40 (playing fields east of Southwood), construction activity would be prominent as seen from the footpath, and some views would be available from the first floors of the residential properties southeast of Grasmere Road. Woodland vegetation loss east of the field would be noticeable. During construction, the potential magnitude of impact would be medium, and the significance of effect would be moderate.



- 10.5.131 There would be effects of significance for users of Queen Elizabeth Park within the southern part of the park at Representative Viewpoints 41 and 41a. From Representative Viewpoint 41, there would be close views of temporary construction activity and substantial tree loss. From Representative Viewpoint 41a, loss of trees would change the character of the park and reveal more prominent views of the railway line and emphasise views of the residential development at Queen Victoria Court. During construction, the potential magnitude of impact would be large, and the significance of effect would be major from both viewpoints. In year 1 post construction, substantial tree loss would change the woodland character of this part of the park. The potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.132 From Representative Viewpoint 42 (Church Path public footpath, Farnborough), close views of construction activity within Farnborough Hill Conservation Area would be available, exacerbated by loss of vegetation along the western side of the footpath. Temporary fencing and movement of construction vehicles would be adjacent to the footpath, immediately dominating the view. Loss of boundary trees north of the football field would open up views of residential buildings along Ship Lane. During construction, the potential magnitude of impact would be large, and the significance of effect would be major. Year 1 post construction, loss of trees along the eastern boundary of Farnborough Hill Conservation Area would change the character of the view from the footpath, revealing views of residential buildings and traffic along Ship Lane to the north. The potential magnitude of impact would be medium, and the significance of effect would be moderate.

Section F

- 10.5.133 From Representative Viewpoints 52a and 53 at Chobham Common, construction activity, including removal of vegetation, temporary fencing, topsoil siding and movement of construction vehicles, would be prominent from localised areas along the PRoW close to the Order Limits. Surrounding woodland vegetation would contain the extent of visual effects. During construction, the magnitude of impact would be medium, and the significance of effect would be moderate.

Section G

- 10.5.134 The project would not be visible from Woburn Farm Registered Park and Garden due to intervening vegetation within the western part of the park. From Representative Viewpoint 55, west of Woburn Farm, there would be close views of construction activity from the footpath, exacerbated by removal of trees west of it. During construction, the magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.135 From Representative Viewpoint 56a at Chertsey Meads, a locally designated and publicly accessible landscape promoted for recreational use, there would be close and open views of construction activity for a limited duration from the PRoW where it crosses the construction corridor and longer views along the construction corridor as it runs northeast within the more open landscape of Chertsey Meads. Whilst temporary, construction activity would be at odds with the open character of the landscape. The potential magnitude of impact would be medium, and the significance of effect would be moderate.



Section H

- 10.5.136 From Representative Viewpoint 59a (Ashford Road, Staines-upon-Thames), construction activity would be prominent along Ashford Road for a limited duration in the context of the public highway. Localised loss of trees protected by TPO to accommodate Valve 14 would also be visible. During construction, the magnitude of impact would be small, and the significance would be moderate.
- 10.5.137 From Representative Viewpoint 60 (Woodthorpe Road, Ashford), the loss of the hedgerow north of Woodthorpe Road would allow close views of the construction compound and associated lighting within the playing field immediately north of Woodthorpe Road. During construction, the potential magnitude of impact would be large, and the significance of effect would be major.
- 10.5.138 There would be effects of significance for users of Fordbridge Park at Representative Viewpoint 61, because the loss of trees would change the character of the park and open up views towards the surrounding urban area and traffic on a localised section of the A308. This would degrade the overall character and scenic quality of the view. During construction, the potential magnitude of impact would be large, and the significance of effect would be major. Year 1 post construction, the loss of trees, some of which are mature and distinctive specimen trees, would change the character of the park and continue to open up views towards traffic on a localised part of the A308. The potential magnitude of impact would be medium, and the significance of effect would be moderate.
- 10.5.139 Trees within Fordbridge Park also screen views towards traffic on the A308 from a localised area of housing within the immediately adjoining residential areas of Staines-upon-Thames and Ashford. Removal of trees within the western part of the park north and south of the A308 would allow filtered views of traffic on the A308 and would cause deterioration in the view and significant effects for residents south of the A308 on the northern periphery of Celia Crescent, Ashford, and north of the A308 on the southern periphery of Fern Walk and Marlborough Road, Ashford.

Summary of Potential Visual Effects Arising from Pipeline Installation

- 10.5.140 Appendix 10.3 Visual Impact Schedule provides a summary of potential visual impacts arising from the pipeline installation. During construction, there are significant effects as reported above due to the presence of construction vehicles and assumed loss of all vegetation in the Order Limits, however, at post construction year 15, when reinstatement planting would be established, there would be no significant effects on visual receptors.

Operation

Landscape and Visual Effects

- 10.5.141 Operational landscape and visual effects would be limited because the pipeline would be underground, and above ground features including the above ground infrastructure would be small in scale. Operational landscape and visual effects consider the effects that would be caused by the above ground infrastructure during operation in year 1 and year 15. Photographs of how these features would typically



look are included within Chapter 3 Project Description. To provide a comprehensive description of the operational effects, where relevant, vegetation loss arising from pipeline installation and vegetation reinstatement has been given consideration in the assessment of operational effects.

- 10.5.142 Reinstatement planting as defined within good practice measures in Table 10.13 and the REAC would change localised views towards the above ground infrastructure between years 1 and 15. This is because planting would not be established in year 1 but in year 15 it would have established to help integrate the structures into the landscape. Whilst this would reduce landscape and visual effects, it is not considered that it would change the overall significance of landscape and visual effects caused by the above ground infrastructure. Therefore the significance of operational landscape and visual impacts at years 1 and 15 would be the same.
- 10.5.143 Table 10.16 summarises the operational landscape and visual impacts that would be caused by the above ground infrastructure. Landscape and visual effects would be localised and not significant during operation in years 1 and 15.

Table 10.16: Operational Landscape and Visual Effects Year 1 and Year 15

Above ground infrastructure	Landscape impacts	Visual impacts
Valve 1 and pigging station	The proposed features and associated fencing would be uncharacteristic and incongruous within the rural landscape and would detract from the local landscape character. Whilst not permanently lit, lighting would also be uncharacteristic within the rural landscape.	Mature trees and hedgerows would contain views towards Valve 1 and the pigging station. There would be views of the structures from: <ul style="list-style-type: none"> travellers along the lane to the northeast of Valve 1 and pigging station location, although these views would be transient; a localised section of a PRoW that runs immediately adjacent to the proposed location; There would be filtered views of the structures: <ul style="list-style-type: none"> through intervening hedgerow vegetation from PRoWs that run northwest and northeast of Hill Farm; and from Hill Farm and housing on the western periphery of Netherhill through intervening garden vegetation.
Valve 2	The proposed valve and associated fencing on the edge of a large arable field would detract from the local landscape character to a limited extent due to the relatively small scale of these features within the wider large scale landscape.	The undulating landform, pattern of small copses and field boundary vegetation would contain views towards the small scale structure. Key views towards Valve 2 would be from: <ul style="list-style-type: none"> travellers on Cross Lane due to the lack of hedgerow next to the valve, although views would be transient; and residents on Cross Lane to the northwest, mainly from upper story windows.
Valve 3	The proposed valve and associated fencing on the edge of a large arable field, would detract from the local landscape character to a limited extent due to the relatively small scale of these features within the wider large scale landscape.	Views towards Valve 3 would be contained by the undulating landform and well wooded character of the surrounding landscape. There are few surrounding visual receptors. There would potentially be views from Betty Mundy's Cottage, although the valve would be set against the backdrop of woodland which would help to make it less visually intrusive. Views from the Wayfarer's Way long distance path to the east would be screened by intervening landform and strong woodland blocks.
Valve 4	The proposed valve and associated fencing would detract from the local landscape character to a limited extent due to the relatively small scale of these features within the wider large scale landscape.	Key views towards Valve 4 would be from: <ul style="list-style-type: none"> users of the PRoW to the west of the lane; and residents at Wolfhanger Farm who would have filtered views through intervening garden vegetation of Valve 4.
Valve 5	The proposed valve and associated fencing on the edge of the field would detract from the local landscape character to a limited extent due to the relatively small scale of these features within the wider large scale landscape.	There are few surrounding visual receptors, and views towards Valve 5 would be well contained by field hedgerow boundaries and strong woodland blocks, including Kitwood Plantation to the east and Dogford Wood to the southeast.



Above ground infrastructure	Landscape impacts	Visual impacts
Pressure transducer chamber	The introduction of the pressure transducer chamber and associated fencing on the edge of the paddocks would detract from the local landscape character to a limited extent due to the relatively small scale of these features and the context of the stud and livery yard and golf course nearby.	Views towards the pressure transducer chamber would be contained by surrounding field boundary vegetation comprising hedgerows and tree belts. Key views towards the pressure transducer chamber would be from: <ul style="list-style-type: none"> the adjacent stud and livery yard and a localised part of the PRow to the east, which joins Headmore Lane south of the proposed location for the pressure transducer chamber. From both receptors there would be close range views of the pressure transducer chamber, associated fencing and hard standings, seen within the context of the stud and livery yard, associated car parking and fencing; and occasionally passing traffic on Headmore Lane and the golf course beyond.
Valve 6	The introduction of Valve 6 with associated fencing on the edge of the large arable field would detract from the local landscape character to a limited extent due to the relatively small scale of these features and the context of the nearby large commercial yards and sheds.	There would be no change to the views for residents at Westbrook Grange, west of the proposed valve location, due to screening provided by mature trees east of the property. Due to the absence of trees and a noticeable gap in hedgerows, there would be direct views of Valve 6, associated fencing and hard standings from parts of Whitehouse Farm and localised parts of the public footpaths running north and south of Selbourne Road. However, the valve would be seen in the context of existing traffic on Selbourne Road, access track to Scaifs Farm, commercial yards and sheds, telegraph poles and overhead lines.
Valve 7	Valve 7 would be located within part of the existing facility enclosed by the A31 and Alton railway line, approximately 1.3km west of the SDNP. The introduction of Valve 7 would not be uncharacteristic of the industrial context of the landscape character locally.	The site is visually well contained within the transport corridor and there are no sensitive visual receptors that would be affected.
Valve 8	The introduction of Valve 8 with associated fencing on the edge of the racecourse would detract from the local landscape character to a limited extent due to the relatively small scale of these features and the context of the fencing and infrastructure associated with the adjacent racecourse.	Views towards Valve 8 would be contained by the well treed landscape and woodland to the west. Key views towards Valve 8 would be from: <ul style="list-style-type: none"> visitors to Tweseldown Race Course. However, these features would not be noticeable within the context of the existing racecourse infrastructure; users of the athletics grounds to the west of the valve, who would have close range views of Valve 8 and traffic on Bourley Road to the east due to the removal of woodland; a small number of residents on the eastern fringe of Church Crookham (upper storey views), who would have filtered views towards the 'notch' in the woodland belt next to the valve, as well as some views of traffic on Bourley Road beyond; and the nursing home to the northwest (although limited).



Above ground infrastructure	Landscape impacts	Visual impacts
Valve 9	The introduction of Valve 9 with associated fencing next to the large roundabout would detract from the local landscape character to a limited extent due to the relatively small scale of these features and the context of Cody technology park, including existing fencing and highway infrastructure.	Views towards Valve 9 would be very well contained by the woodland setting and there are few highly sensitive visual receptors that would be affected. Valve 9 would be just perceptible in oblique views from the nearby residential properties to the west of the proposed valve on Victoria Way, seen in the context of existing highway infrastructure and traffic.
Valve 10	The introduction of Valve 10 with associated fencing would detract from the local landscape character to a limited extent due to the relatively small scale of these features, the urban context and the scale of the factory to the northwest.	Views towards Valve 10 would be restricted by the well treed setting, substantial woodland to the west and built development including residential areas to the east and the factory to the northwest. Key views towards Valve 10 would be from: <ul style="list-style-type: none"> • a localised area of housing on the periphery of Frimley Green immediately to the east; and • the cyclepath that runs along Frimley Green Road and through the open space north of Balmoral Drive. However, the valve would be viewed within the context of an urban environment and the roundabout along Frimley Green Road.
Valve 11	The introduction of Valve 11 with associated fencing would detract from the local landscape character to a limited extent due to the relatively small scale of these features, the context of the public highway, pylons and overhead wires, and the well treed surroundings which would physically and visually contain the valve.	Views towards Valve 11 would be limited because of intervening surrounding woodland, which would prevent views from the residential edge of Lightwater. Key views towards Valve 11 would be from people using a localised part of the open access land and localised parts of PRoW at Turf Hill to the south and southwest. Valve 11 would be viewed within the context of the public highway, pylons and overhead wires and against a wooded backdrop.
Valve 12	The introduction of Valve 12 with associated fencing would detract from the local landscape character to a limited extent due to the relatively small scale of these features within the context of the public highway, pylon and existing overhead wires.	Views towards Valve 12 would be contained by surrounding field hedgerow boundary vegetation, and there are few visual receptors in this rural location. There would be glimpses of the valve through intervening garden vegetation and retained hedgerows along Steep Hill from Brock Cottage to the west and Home Farm House to the east. However, views would be filtered, and the valve would be viewed in the context of a large pylon and overhead wires.



Above ground infrastructure	Landscape impacts	Visual impacts
Valve 13	<p>The introduction of Valve 13 with associated fencing would detract from the local landscape character to a limited extent due to the relatively small scale of these features and the context of the M25 motorway.</p>	<p>Views towards Valve 13 would be restricted by the well treed character of the landscape around Pannells Farm and field hedgerow boundaries. Views towards the valve from Pannells Farm and Sandgates would be screened by intervening trees and outbuildings. Key views towards the valve would be limited to views from a localised section of the PRoW which runs along a field boundary to the northwest and crosses the M25. The valve would be viewed within the context of outbuildings at Pannells Farm and the M25.</p>
Valve 14	<p>The introduction of Valve 14 with associated fencing would detract from the local landscape character to a limited extent because of the urban context along Ashford Road. The installation of the valve in this location would lead to a localised loss of TPO trees.</p>	<p>Views towards Valve 14 would be well contained by the substantial tree belt east of Ashford Road, and the built-up context of Ashford to the west. There would be close views of the valve, associated fencing and hard standing from a localised number of residential properties west of Ashford Road. However, the valve would be viewed in the context of the public highway and against the backdrop of retained trees. The localised loss of trees would not compromise the overall screening function of the tree belt (of views of mineral works to east from properties along Ashford Road).</p>



10.6 Mitigation

- 10.6.1 Mitigation has been identified in the form of native species hedge and tree planting. Native trees and hedgerows would be planted within areas identified as tree planting and hedge infilling on Figure 7.5 of the ES (LV1). This is a holistic approach to partly offset the envisaged loss of trees from the overall pipeline installation project.

10.7 Residual Impacts (With Mitigation)

- 10.7.1 Landscape and visual effects of significance are identified during construction and in year 1 post construction as described within Section 10.5 Potential Impacts. However, effects relating to construction activity would be short term and temporary, and effects relating to loss of vegetation would largely be of medium duration whilst reinstatement planting becomes established, reducing over time to non-significant effects as reported below for year 15.
- 10.7.2 In line with the standard approach to LVIA, residual effects are considered in year 15 when planting would be established. This approach is adopted to acknowledge that measures to reduce landscape and visual effects caused by vegetation loss cannot be completely effective until replacement planting is fully established, which can take approximately 15 years.
- 10.7.3 This section summarises the residual landscape and visual effects in year 15 post construction and during operation in year 15 when reinstatement planting would be established.

Construction

- 10.7.4 Tables 10.14 and 10.15 and Appendix 10.3 identify that in year 15 post construction, when reinstatement planting outlined in Table 10.13 would be established, all landscape and visual effects arising from pipeline installation would be not significant with the exception of impacts on TPO trees.
- 10.7.5 The design of the route and the application of good practice measures, including narrow width working and trenchless crossings set out in the REAC, has reduced the impacts arising from pipeline installation on woodland, TPOs and protected trees within Conservation Areas. Whilst reinstatement planting would establish to reinstate lost vegetation, it would not be possible to fully mitigate the potential permanent loss of TPO trees in the same location. There would be restrictions to planting trees over and around pipeline easements. There may also be less scope to accommodate reinstatement of trees within the wider urban area because of restrictions caused by built development, proximity to highways and underground services for example. Post construction year 15 the magnitude of impact would be medium and the significance of effect on TPO trees would be moderate.

Operation

- 10.7.6 Landscape and visual effects arising from pipeline operation would be limited, particularly during operation in year 15 when reinstatement planting outlined in Table 10.13 would be established. This is because the pipeline would be



underground and above ground infrastructure would be small in scale. Landscape and visual effects arising from pipeline operation during operation in year 15 would be localised and not significant.



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