

A47 Wansford to Sutton Dualling

Scheme Number: TR010039

Volume 6

6.3 Environmental Statement Appendices **Appendix 7.3 – Landscape Character Areas**

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

July 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

A47 Wansford to Sutton
Development Consent Order 202[x]

ENVIRONMENTAL STATEMENT APPENDICES
Appendix 7.3 - Landscape Character Areas

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010039
Application Document Reference	TR010039/APP/6.3
BIM Document Reference	HE551494-GTY-ELS-000-RP-LE-30005
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Version	Date	Status of Version
Rev 0	July 2021	Application Issue

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Appendix 7.3 Landscape Character Areas

1. Landscape Character Areas

1.1. Introduction

- 1.1.1. This document provides the detailed assessment of the effects of the Proposed Scheme on two landscape character areas. The principal sources of published information on landscape character are the Landscape Character Assessment for Peterborough City Council (2007) and the Huntingdonshire Landscape and Townscape Assessment Supplementary Planning Document (2017) (see Figure 7.3a) (**TR010039/APP/6.2**).
- 1.1.2. The landscape character areas have been identified by local authorities at a local level and validated as part of the assessment to confirm that they provide an appropriate basis for assessing the landscape effects of the Proposed Scheme. That process of validation, supported by site observations, has resulted in:
- The amalgamation of areas of consistent landscape character that cross political boundaries (for example, the amalgamation of parts of the Nene Valley that fall within Peterborough, Huntingdonshire, and Northamptonshire respectively)
 - Some refinements to the boundary between the two character areas in the immediate vicinity of the Proposed Scheme, where this better reflects local character at a more detailed scheme-specific level (for example, the extension of the Nene Valley to include the sloping land on the northern bank of the River Nene just east of the village of Wansford and the realignment of the boundary at the eastern end of the Proposed Scheme to reflect the judgement that the east to west woodland belt there principally associates with the landscape of the Nassaburgh Limestone Plateau to the north) (see Figure 7.3b) (**TR010039/APP/6.2**)
- 1.1.3. The two identified landscape character areas are those through which the Proposed Scheme passes. The process through which these two local landscape character areas were identified as the basis for the assessment of the landscape character effects of the Proposed Scheme, and the exclusion from the detailed assessment of other surrounding locally identified landscape character areas, is explained within Environmental Statement (ES) Chapter 7 (Landscape and Visual Effects) (**TR010039/APP/6.1**).
- 1.1.4. The extent of the two landscape character areas is shown by Figure 7.3b Landscape Character (**TR010039/APP/6.2**). Note should be taken that the existing A47 between the dismantled railway at Sutton Heath Road and the existing roundabout at the far eastern end of the Proposed Scheme essentially forms the boundary between the two identified landscape character areas. This boundary function of this section of the existing A47 is consolidated by an almost continuous existing east to west woodland belt that marks that boundary over

approximately 1.7 km. The woodland belt itself is considered by this assessment to principally associate with, and reflect the character of, the Nassaburgh Limestone Plateau landscape to the north. The east to west woodland belt is therefore assessed as falling within that landscape character area rather than the Nene Valley to the south.

- 1.1.5. For each of the two landscape character areas, the following text summarises the baseline context and the landscape sensitivity to the Proposed Scheme; identifies key issues; identifies proposed mitigation; and assesses the construction and operation phase effects of the Proposed Scheme. These identified effects are then summarised within the main ES Chapter 7 (Landscape and Visual Effects) (**TR010039/APP/6.1**).

1.2. Nassaburgh Limestone Plateau

Baseline Context

- 1.2.1. The landscape of the Nassaburgh Limestone Plateau is located within the Peterborough administrative area. The principal source of published information on its landscape character is the Landscape Character Assessment for Peterborough City Council (2007).
- 1.2.2. The landscape of the Nassaburgh Limestone Plateau comprises a slightly elevated, open, principally arable agricultural landscape located to the north of the Proposed Scheme and to the north of the landscape of the Nene Valley.
- 1.2.3. The sections of the Proposed Scheme that are located within or close to the boundary of the Nassaburgh Limestone Plateau landscape are as follows (they fall within three principal areas):

At the western end of the Proposed Scheme:

- The improved access to residential properties on the eastern side of the A1 to the north-west of the Proposed Scheme
- The proposed new slip road curving east from the southbound A1 to join the eastbound A47
- Ecological enhancements between the A1 and Sacrewell Farm
- The existing junction between the A1 and the A47 including both existing roundabouts on either side of the A1
- The proposed new access into Sacrewell Farm including the southern spur from the existing roundabout
- The attenuation basins south of Sacrewell Farm
- The section of the proposed new A47 dual carriageway between the existing western roundabout and the petrol filling station

At the eastern end of the Proposed Scheme:

- The section of the proposed new A47 dual carriageway between Sutton Heath Road and the far eastern extent of the Proposed Scheme (this section of the proposed new dual carriageway essentially runs along the boundary between the Nassaburgh Limestone Plateau and the Nene Valley and therefore has a relationship with both landscape character areas)
- The proposed new central roundabout north of Sutton Drift
- The proposed new alignment of Sutton Heath Road heading north from the new roundabout west of the village of Upton:
- The minor improvements to the local highway network to improve access to the village of Upton from the west following closure of Upton Road to the south due to the removal of the existing eastern roundabout

- 1.2.4. Information regarding the baseline character of the Nassaburgh Limestone Plateau landscape has been extracted from the Rockingham Forest NCA 92 national landscape character area description and from the Landscape Character Assessment for Peterborough Council (May 2007) (Area 2: Nassaburgh Limestone Plateau, sub areas 2a: Castor Hanglands Wooded Plateau and 2b: Burghley and Walcot Slopes), combined with site specific observations in the field.
- 1.2.5. The landscape of the Nassaburgh Limestone Plateau is characterised by a slightly elevated and open arable plateau landscape of slightly undulating limestone hills. The field pattern is generally large and geometric with fields generally enclosed by hedgerows, many with frequent hedgerows trees, but with some drystone walls. The landscape is sometimes bisected by linear woodland belts, including that associated with the historic route of Ermine Street. There are scattered copses and small woodlands that provide some enclosure within an area which is generally visually open. Settlement is infrequent in the vicinity of the Proposed Scheme.
- 1.2.6. The key characteristics of the Nassaburgh Limestone Plateau landscape with the potential to be impacted by the Proposed Scheme include:
- The A47 which broadly coincides with the southern boundary of the character area
 - Its reasonably open character
 - The geometric pattern of large fields and associated hedgerows
 - Gently undulating limestone topography
 - Areas of woodland, linear woodland belts, and small copses
 - Wide verges to minor roads
 - A generally quiet rural ambiance
- 1.2.7. The vicinity of the Proposed Scheme largely falls within the Castor Hanglands Wooded Plateau sub area but with some areas a little to the north-west within the Burghley and Walcot Slopes sub area where the topography is more marked within a series of narrow enclosed valleys (for example, that associated with Wittering Brook towards the north-western corner of the study area and to the west and north of the Sacrewell Farm visitor centre).
- 1.2.8. The Landscape Character Assessment for Peterborough City Council (May 2007) includes guidelines in relation to development. Regarding Area 2: Nassaburgh Limestone Plateau, sub-areas 2a: Castor Hanglands Wooded Plateau and 2b: Burghley and Walcot Slopes guidelines seek to protect the strong character of the landscape, encourage further tree planting, and enhance linkages between woodlands, hedgerows, and roadside verges.

- 1.2.9. The Nassaburgh Limestone Plateau landscape displays a reasonably high level of general tranquillity away from the major highway routes that surround it. This reflects its rural, agricultural character and relatively low levels of settlement.
- 1.2.10. The Nassaburgh Limestone Plateau landscape enjoys reasonably low levels of night-time light pollution away from the major highway routes that surround it. This reflects its rural, agricultural character and relatively low levels of settlement. It is characterised by reasonably dark skies.
- 1.2.11. The key components (or features) of the landscape of the Nassaburgh Limestone Plateau landscape that would potentially be directly impacted by the Proposed Scheme include:
- Vegetation including woodlands, tree belts, copses, individual trees, and hedgerows
 - The field pattern
 - Landform
- 1.2.12. An arboricultural assessment to BS5837 of tree cover within the Site is provided at Appendix 7.6 (**TR010039/APP/6.3**). Further information regarding hedgerows is provided within ES Chapter 8 (Biodiversity) (**TR010039/APP/6.1**). Hedgerows tend to be predominantly hawthorn. Tree cover within the Nassaburgh Limestone Plateau landscape comprises a mix of linear woodland belts, small copses, field boundary trees and some avenue-like rows of trees along some of the rural country lanes (such as along Sutton Heath Road). The continuity of these woodland belts and of the avenue-like character along some local roads is an important aspect of landscape character. The predominant species comprise sycamore (which are dominant in the avenue-like character along Sutton Heath Road), oak, ash, field maple and occasional lime.
- 1.2.13. The field pattern within the plateau landscape tends to comprise large scale, geometric, arable fields separated by hedgerows.
- 1.2.14. The plateau landscape displays a gently undulating topography with no abrupt changes in gradient or landform. The existing A47 largely runs close to the natural grade and there are few embankments along its existing route.

Sensitivity

Value

- 1.2.15. The Landscape Character Assessment for Peterborough City Council does not attribute a value rating to different landscape character areas and sub areas. However, it defines the landscape strategy for the Castor Hanglands Wooded Plateau within the Nassaburgh Limestone Plateau landscape close to the Site as 'Safeguard and manage', identifying it as a landscape in good condition with a strong strength of character displaying tranquillity and rarity.
- 1.2.16. The area does not associate with any overarching landscape designations. A degree of value is attributed at a local level to the landscape's sparsely settled rural character. This is enjoyed within northern parts of the wider estate of the Sacrewell Farm and Sacrewell Lodge visitor attraction. There are cultural associations with the poet John Clare and historical associations within the wider area including the route of Ermine Street.
- 1.2.17. The Landscape Character Assessment for Peterborough Council (May 2007) includes the following text regarding Area 2: Nassaburgh Limestone Plateau, sub-areas 2a: Castor Hanglands Wooded Plateau:
- The landscape is sensitive from both ecological and cultural landscape perspectives. The combination of good character and condition also indicates the quality of the landscape is high. Built development in the open sweeping landscapes would be highly visible and interrupt the landscape pattern. Within the more intimate village landscape the quality is a function of the buildings and the spaces and materials between them and for this reason they are also considered of high sensitivity. Any development here should be limited and be of the highest standard, sympathetic with local and traditional patterns.*
- 1.2.18. On balance, the landscape is considered to be of **medium value** which reflects a balance between a national and local perspective of the value attributed to this character area as was described in paragraph 1.2.16.

Susceptibility

- 1.2.19. The landscape essentially comprises reasonably large, geometric fields with an open character interrupted by copses and woodland belts. The landscape also features lines of mature roadside trees giving an avenue-like character to some routes. The topography is only gently undulating. The gentle undulations; large scale landscape pattern; and sparsity of settlement mean that the landscape features and key characteristics of the landscape are considered to be of only **medium to low susceptibility** to the potential effects of large scale linear highway development. The scale and geometric pattern of the landscape is

considered to display some capacity to accommodate linear development of this type.

Sensitivity

- 1.2.20. The overall sensitivity of the Nassaburgh Limestone Plateau landscape to the potential effects of large-scale linear highway infrastructure (combining both landscape value and the susceptibility of its key characteristics) is assessed to be **medium**.

Key issues

- 1.2.21. The key issues regarding the potential effects of the Proposed Scheme on the landscape character of the Nassaburgh Limestone Plateau landscape are:
- The relationship between the alignment of the main dual carriageway of the Proposed Scheme and the existing large scale, geometric field pattern
 - Any losses of or changes to the pattern of hedgerow, tree and woodland cover which characterises the landscape including the continuity of the east to west woodland belt towards the eastern end of the Proposed Scheme which forms a southern edge to the landscape character area
 - Any effects associated with the introduction of the new central roundabout and the northern alignment of the new Sutton Heath Road through what is currently open arable fields

Mitigation

- 1.2.22. The effects of the Proposed Scheme on the landscape of the Nassaburgh Limestone Plateau would be mitigated in the following ways:
- New woodland planting to restore the continuity of the east to west woodland belt which divides the Nassaburgh Limestone Plateau landscape to the north from the Nene Valley landscape to the south
 - Reformation of a field pattern with hedgerows and occasional trees to the north of the Proposed Scheme which would replicate the existing landscape pattern and landscape character
 - The addition of small woodland copses associated with the new route of Sutton Heath Road heading north from the new central roundabout which would integrate the new highway into the landscape whilst being consistent with the existing character and landscape pattern
 - Replication of the avenue-type tree planting along roads within the plateau landscape
- 1.2.23. The chosen alignment of the Proposed Scheme also follows the southern boundary of the landscape character area with the adjacent Nene Valley. This means that the proposed new dual carriageway would become a feature of its

southern edge but would not bisect or fragment the continuity of the Nassaburgh Limestone Plateau landscape character area and become a defining feature of its character.

Construction effects

- 1.2.24. The construction stage effects of the Proposed Scheme would primarily stem from the removal of existing vegetation during the various phases of construction and from the effect on the landscape of the temporary presence of construction activity including more general site clearance; the excavation of cuttings; the formation of new earthworks; general construction activity; the storage of materials and topsoil; the presence of plant, equipment, machinery and construction vehicles; and temporary traffic diversions.
- 1.2.25. Tree and hedgerow removal would take place during construction in the following principal locations within the landscape of the Nassaburgh Limestone Plateau (references in brackets are to the codes used in the Arboricultural Impact Assessment (AIA) (**TR010039/APP/7.6**):
- Some minor vegetation clearance to improve access to residential properties to the east of the A1 at the north-western extent of the Proposed Scheme (including G208 and G209)
 - Removal of trees from sections of the eastern embankment of the A1 to form the new slip road curving east to join the eastbound carriageway of the A47 (including the southern end of G205 and G7, G8 and T1 to T2)
 - Removal of a section of woodland belt and areas of trees to both the north and south of the existing A47 to form the new access into Sacrewell Farm (including G14, G43, G26, G25 and G42)
 - Removal of three relatively limited sections of the approximately 1.7 km long east to west woodland belt to the east of the dismantled railway to enable the new dual carriageway to pass to its north and to form the required links to the new central roundabout and the Castor Road (noting that, although on the boundary between the two character areas, this woodland belt is considered to principally associate with the landscape of the Nassaburgh Limestone Plateau landscape to the north) (including sections of G188, G189, G187, G62, G61, G60 (on the existing roundabout) and G70)
- 1.2.26. As was stated in paragraphs 1.2.5 to 1.2.23, although this is an open landscape, these changes to the pattern of hedgerow, tree and woodland cover and field pattern during construction would adversely change the character of this character area. Changes to the structure provided by vegetation in an open landscape would have an adverse effect on its intrinsic character.
- 1.2.27. The presence of construction activity would adversely affect the rural character of the Nassaburgh Limestone Plateau landscape during the temporary construction

period. Both of the main construction compounds south of Sacrewell Farm and east of Sutton Heath Road would be located within this character area. Aside from the existing A47, this is a relatively tranquil landscape and the visibility of construction activity within the site, i.e. the compounds; vehicle movements on land adjacent to the A47; plant equipment and storage of materials, would adversely alter the landscape character.

- 1.2.28. Considering all these temporary changes, the construction of the Proposed Scheme would cause a partial loss of key landscape characteristics and would introduce conspicuous elements into the view (i.e. compounds, earthworks, storage of material, plant equipment and vehicles). However, this change is offset by the existing visibility of the A47 and that the scale and geometric pattern of the landscape displays some capacity to accommodate linear development of this type. There would therefore be a **moderate adverse magnitude** of landscape character change and a **moderate adverse significance** of effect on the character of the Nassaburgh Limestone Plateau landscape.

Operation effects

- 1.2.29. The fit between the Proposed Scheme and the character of the Nassaburgh Limestone Plateau landscape would be reasonably good. The linear nature of the proposed infrastructure would fit reasonably well with the geometric pattern of large scale arable fields over only gently undulating topography. The Proposed Scheme would largely run close to natural grade with limited areas of new cutting or embankment required. Where short sections of these do occur their impact on the wider topographical character of the landscape would be successfully absorbed without substantial perceived change due to the scale of the field pattern (the effect of a section of the Proposed Scheme within cutting within a large arable field would be very different to the effect of a section of the Proposed Scheme on embankment through a small, pastoral land parcel). There would, however, be areas of tree loss which would adversely affect the rural character of the Nassaburgh Limestone Plateau landscape while new and replacement planting is initially immature at Year 1. In addition, new earthworks would be evident in some locations and would give rise to localised adverse effects on the southern extent of the character area.
- 1.2.30. The location of the Proposed Scheme on the southern boundary of the landscape character area close to the route of the existing A47 ensures that there would not be a change to levels of general tranquillity. The overall extent of street lighting would also be similar to baseline conditions and the character area would retain its reasonably 'dark skies'.
- 1.2.31. The sensitivity of the Nassaburgh Limestone Plateau landscape to the potential effects of large scale highway infrastructure has been assessed to be **medium**

- 1.2.32. At Year 1 of operation the Proposed Scheme would result in a **moderate adverse magnitude** of landscape change and a **moderate adverse significance** of effect on the character of the Nassaburgh Limestone Plateau Landscape. Although the fit between the Proposed Scheme would be reasonably good, the clearance of some tree and hedgerow cover and presence of new earthworks would be evident at Year 1, altering the structure of the landscape temporarily, prior to the establishment of mitigation planting.
- 1.2.33. Mitigation planting has been included in the design to replicate the network of hedgerows which enclose the field pattern, to plug gaps in the continuity of the east to west woodland belt at the eastern end of the Proposed Scheme and to introduce additional small copses and field boundary and highway tree planting to integrate the Proposed Scheme into the existing landscape character.
- 1.2.34. As this new planting matures, by Year 15 of operation the change due to the Proposed Scheme would have lessened and there would be a **minor adverse magnitude** of change and a **slight adverse significance** of effect on the character of the Nassaburgh Limestone Plateau Landscape.

1.3. Nene Valley

Baseline Context

- 1.3.1. The landscape of the Nene Valley is located in Peterborough and in Huntingdonshire (the River Nene forms the boundary in the vicinity of the Proposed Scheme). Areas to the south-west also fall within Northamptonshire.
- 1.3.2. The landscape of the Nene Valley comprises a shallow, low lying, valley landscape with both pastoral and arable areas, and is principally located to the south of the Proposed Scheme and to the south of the landscape of the Nassaburgh Limestone Plateau.
- 1.3.3. The sections and components of the Proposed Scheme that are located within or close to the boundary of the Nene Valley landscape are as follows (they fall within or close to two principal areas):

Within the central section of the Proposed Scheme:

- The section of the proposed new A47 dual carriageway between the petrol filling station to the west and the dismantled railway and Sutton Heath Road to the east
- The proposed flood storage area close to where Wittering Brook flows south into the River Nene
- Two attenuation basins

Close to the eastern end of the Proposed Scheme:

- The section of the proposed new A47 dual carriageway between Sutton Heath Road and the far eastern extent of the Proposed Scheme. This section of the proposed new dual carriageway essentially runs along the boundary between the Nassaburgh Limestone Plateau to the north and the Nene Valley to the south and therefore has a relationship with both landscape character areas. Nevertheless, it is judged that the existing A47 and the associated east to west woodland belt on its northern side forms that boundary and, therefore, this eastern end of the Proposed Scheme to the north of the woodland belt lies just outside of the Nene Valley landscape.

- 1.3.4. The principal sources of published information on the landscape character of the Nene Valley are the Landscape Character Assessment for Peterborough City Council (2007) and the Huntingdonshire Landscape and Townscape Assessment Supplementary Planning Document (2007). Information regarding the baseline character of the Nene Valley landscape has been extracted from the Northamptonshire Vales NCA 89 national landscape character area description; the Landscape Character Assessment for Peterborough City Council (May 2007) (Area 1: Nene Valley, sub-area 1c Ailsworth and Castor Valley Slopes); and the Huntingdonshire Landscape and Townscape Assessment SPD (2007); combined with site specific observations in the field.

- 1.3.5. The landscape of the Nene Valley is characterised by a low lying river valley landscape slightly enclosed by generally shallow slopes with open arable farmland in the valley floor combined with areas of pasture and riparian vegetation closer to the River Nene. The valley is a reasonably heavily settled landscape containing several traditional villages with stone built houses. The landscape is generally quite open but has a sometimes more enclosed and intimate scale where there is more vegetation closer to the River Nene.
- 1.3.6. The key characteristics of the Nene Valley landscape with the potential to be impacted by the Proposed Scheme include:
- Broad valley with generally gently sloping valley sides but with some slightly steeper slopes immediately to the east of Wansford
 - Although generally quite open, vegetation associated with the riverside, dismantled railway and other landscape elements creates a more intimate and enclosed character in some riverside locations
 - The existing A47 runs close to its northern boundary
 - The gently meandering River Nene and its immediately adjacent pastoral floodplain with sometimes scattered trees
 - A mixture of pastoral and arable areas in the broader valley floor with extensive areas of larger arable fields further from the River Nene
 - Variable land uses and a mosaic of wildlife habitats closer to the River Nene – some associated with former gravel extraction from within the floodplain
 - The setting of historic villages with many local 'warm' limestone buildings
 - A reasonably tranquil character, particularly closer to the River Nene and away from the nearby main roads
 - Widespread recreational land uses
 - Some historical associations
- 1.3.7. The Landscape Character Assessment for Peterborough City Council (May 2007) includes guidelines in relation to development. Regarding Area 1: Nene Valley, sub-area 1c Ailsworth and Castor Valley Slopes guidelines seek to restrict built development, retain the primary role of the area as a recreational resource, protect the historic setting of the villages and prevent development that could detract from local landmarks.
- 1.3.8. The Nene Valley landscape displays only moderate to low levels of general tranquillity. This reflects its settled character, the effect upon it of surrounding roads, and its proximity to more extensive urban areas and urban fringe influences. The shallow topography and linear nature of the valley landform also mean that the existing traffic movements and lighting along the existing A47 exert a greater influence on lowering tranquillity within the valley to the south than they do on the more extensive and elevated plateau landscape to the north. There

are, however, pockets of more tranquil character to be found away from the major highway routes, especially within the traditional stone built villages and in the pastoral landscapes closer to the riverside.

- 1.3.9. The Nene Valley landscape is exposed to a degree of night-time light pollution due to its settlements and the major highway routes that surround it. It is not characterised by especially dark skies.
- 1.3.10. The key components (or features) of the landscape of the Nene Valley that would potentially be directly impacted by the Proposed Scheme include:
- Vegetation including woodlands, tree belts, copses, individual trees, and hedgerows
 - The field pattern including some smaller pastoral land parcels closer to the River Nene
 - The River Nene
 - Landform
- 1.3.11. An arboricultural impact assessment to BS5837 of tree cover within the Site is provided at Appendix 7.6 (**TR010039/APP/6.3**). Further information regarding hedgerows is provided within ES Chapter 8 (Biodiversity) (**TR010039/APP/6.1**). Tree cover within the Nene Valley landscape comprises a mix of linear woodland belts, small copses, and dispersed trees along the valley close to the River Nene. The predominant species comprise oak, ash, and lime with a greater frequency of poplar and willow and occasional elm closer to the River Nene . White willow are associated with the County wildlife site at Sutton Meadows.
- 1.3.12. The field pattern varies between larger arable land parcels (generally within the valley floor and lower slopes but set back from the riverside) and smaller pastoral fields next to the River Nene .
- 1.3.13. The River Nene forms the defining feature of the Nene Valley landscape. The gently meandering River Nene has a gentle, attractive, and tranquil character with well vegetated banks and substantial areas of marginal vegetation. Its character is enhanced in places by old white willow pollards. Access to the landscape immediately adjacent the River Nene is provided by the Nene Way along its northern bank. The existing A47 passes at a slightly elevated level to within approximately 55m of the riverside approximately halfway between the settlements of Wansford and Sutton.
- 1.3.14. The Nene Valley generally comprises a shallow landform with gentle slopes, though some slightly steeper slopes do occur, such as those found to the north of the River Nene immediately to the east of the village of Wansford. This gently sloping landform is generally free from substantial artificial changes associated

with settlement, infrastructure, or other development. The existing A47 passes close to the River Nene on its northern side at a level which is reasonably close to the natural grade and landform of the valley. There are nevertheless low embankments found on the southern side of the road (for example between the petrol filling station and Wittering Brook within Sutton Meadows visible in representative assessment viewpoint E).

Sensitivity

Value

- 1.3.15. The explanative text for Policy LP24 of the Peterborough Local Plan identifies that the Nene Valley *'has long been identified as an area of high amenity, landscape, ecological and heritage value'*. The Landscape Character assessment for Peterborough City Council does not attribute a value rating to different landscape character areas and sub areas. However, it defines the landscape strategy for the Ailsworth and Castor Valley Slopes within the Nene Valley landscape close to the Site as 'Improve and conserve', identifying it as only moderate in condition with only a moderate strength of character of moderate tranquillity and 'frequent' level of rarity. The landscape character assessment does not therefore imply high value.
- 1.3.16. The landscape of the Nene Valley does not fall within any overarching landscape designations at either a national or local level. The landscape of the valley is nevertheless recognised within local policy to offer amenity and recreational opportunities associated with the River Nene and its valley floor. These policies as much identify opportunity for enhancement as they recognise existing landscape value and scenic quality. Nevertheless, both the River Nene and the traditional stone built villages found within the valley do comprise a landscape which is locally valued and subject to reasonably high levels of recreational use. Less intense cultivation and the susceptibility of parts of the valley to flooding give the landscape a more diverse mix of vegetation types and natural association. The villages also provide historical associations with many traditional building and features such as stone bridges. Considering all these factors, the landscape is of **medium value**, albeit principally at a local scale.

Susceptibility

- 1.3.17. The landscape essentially comprises a slightly enclosed pastoral valley, interspersed with reasonably high levels of settlement in the form of traditional villages with a relationship to the River Nene. The valley topography, sometimes steep slopes to the north of the River Nene and more fragmented, pastoral character mean that the landscape has a smaller scale than the plateau landscape to the north. This smaller scale means that the landscape features and

key characteristics of the landscape are of higher susceptibility to the potential effects of large scale highway development. Nevertheless, it is also the case that the landscape of the Nene Valley in the vicinity of the Proposed Scheme contains a section of the existing A47 and other detracting elements. Overall, the features and characteristics of the Nene Valley landscape are considered to be of **medium to high** susceptibility to the effects of large scale linear highway infrastructure.

Sensitivity

- 1.3.18. Overall, and in acknowledgement of a strategic intent to improve the landscape and attract recreational use, the sensitivity of the Nene Valley landscape to the potential effects of large scale highway infrastructure (combining both landscape value and the susceptibility of its key characteristics) is assessed to be **medium** which reflects higher levels of landscape sensitivity particularly associated with smaller scale pastoral areas closer to the riverside and the influence of a section of the existing A47 and other detracting elements which indicate lower sensitivity.

Key issues

- 1.3.19. The key issues regarding the potential effects of the Proposed Scheme on the landscape character of the Nene Valley landscape are:
- The proximity of the Proposed Scheme to the River Nene just to the west of the dismantled railway due to the presence to the north of a scheduled monument
 - The potential effects of changes in landform where the Proposed Scheme passes close to the River Nene (within approximately 8m of the riverbank)
 - Any loss in the continuity and landscape function of the existing east to west tree belt between the dismantled railway and the far eastern extent of the Proposed Scheme which acts as a boundary and northern edge to the character area
 - Any effect of views north on the setting of villages such as Stibbington and Sutton which contribute to the character of the valley landscape

Mitigation

- 1.3.20. The effects of the central section of the Proposed Scheme on the landscape of the Nene Valley between the petrol filling station and dismantled railway (where it passes in proximity to the River Nene) would be partially mitigated in the following ways:
- Limiting the vertical elevation of the new carriageway to the minimum AOD level which is feasible (the carriageway would be approximately 7m above the riverbank level at its closest point)

- Tree planting on the embankments to the south of the new dual carriageway and within carefully selected areas of the adjacent River Nene County Wildlife Site
- Planting of white willow along the riverside to reinforce the character of Sutton Meadows
- Screening the new dual carriageway in views from the south to ensure that the setting of the villages that contribute to the character of the Nene Valley, such as Stibbington, would be protected

1.3.21. This mitigation would be only partially successful because of limited space due to the proximity between the Proposed Scheme and the River Nene. Further mitigation in the form of planting is constrained by the ecological functions of this land within the River Nene County Wildlife Site. Planting would help to absorb the appearance of the embankments and carriageway but would not alter the required 7m change in level that would occur within approximately 26m of the River Nene. This landform would be of a different scale and gradient to what is characteristic within the River Nene valley landscape.

1.3.22. The effects of the eastern section of the Proposed Scheme on the landscape of the Nene Valley would be mitigated in the following ways:

- Positioning the proposed new central roundabout outside, and to the north of, the Nene Valley landscape
- Retaining woodland cover and plugging gaps in the continuity of the east to west woodland belt that forms the northern edge of the landscape character area and that would separate it from the alignment of the proposed new dual carriageway
- Screening the new dual carriageway in views from the south to ensure that the setting of the villages that contribute to the character of the Nene Valley, such as Sutton, would be protected

Construction effects

1.3.23. The construction stage effects of the Proposed Scheme would stem from the removal of existing vegetation during the various phases of construction and from the effect on the landscape of the temporary presence of construction activity including more general site clearance; the excavation of cuttings; the formation of new earthworks; general construction activity; the storage of materials and topsoil; the presence of plant, equipment, machinery and construction vehicles; and temporary traffic diversions.

1.3.24. Tree and hedgerow removal would take place during construction in the following principal locations within the landscape of the Nene Valley (references in brackets are to the codes used in the Arboricultural Impact Assessment (AIA) at Appendix 7.6) (**TR010039/APP/6.3**):

- Sections of hedgerow removal both to the north and to the south of the central section of the existing A47 between the petrol filling station and the dismantled railway (not included in the AIA)
- Removal of a group of trees within the County Wildlife Site to the south of the existing A47 close to the River Nene (including G16, T17, T18 and T20), discussed in Appendix 7.6 (**TR010039/APP/6.3**)
- Removal of an area of high woodland associated with the former station building just to the west of the dismantled railway and west of Sutton Heath Road (including G46, G48 and G47) (the station building is to be demolished as part of the Proposed Scheme)
- Removal of trees and hedgerows from the eastern side of the southern end of Sutton Heath Road to form a new walking cycling and horseriding (WCH) route (including G181 and T141 to T143 inclusive)
- Removal of three relatively limited sections of the approximately 1.7km long east to west woodland belt to the east of the dismantled railway to enable the new dual carriageway to pass to its north and to form the required links to the new central roundabout and the Castor Road (noting that, although on the boundary between the two character areas, this woodland belt is considered to principally associated with the landscape of the Nassaburgh Limestone Plateau landscape to the north) (including sections of G188, G189, G187, G62, G61, G60 (on the existing roundabout) and G70)

- 1.3.25. The presence of construction activity would adversely affect the riverside character of the Nene Valley landscape during the temporary construction period. This would be particularly marked where the Proposed Scheme and its large scale earthwork requirements are located within close proximity of the River Nene approximately halfway between the settlements of Wansford and Sutton. The topographical relationship between the immediate setting of the River Nene and views north towards the Proposed Scheme and plateau landscape would feature construction activity including the presence of large scale plant on the skyline (although this would essentially be a visual effect, and some visible activity would fall within the adjacent plateau landscape, there would be an impact on the visual setting and therefore perceived character of the Nene Valley landscape).
- 1.3.26. During construction, the Proposed Scheme would result in a **major adverse magnitude** of landscape character change and a **large adverse significance** of effect on the character of the Nene Valley landscape. This assessment reflects the proximity of the construction works to the River Nene just west of the dismantled railway.

Operation effects

- 1.3.27. The fit between the Proposed Scheme and the character of the Nene Valley landscape would be poor in some locations in terms of landform and scale. This

would be most notably where the Proposed Scheme passes closest to the River Nene approximately halfway between the settlements of Wansford and Sutton. The scale of the new dual carriageway and associated earthworks would be extend slightly further from the line of the existing A47 and would be inconsistent with the scale of the character of the pastoral valley landscape close to the River Nene, especially in the location immediately to the west of the dismantled railway where the Proposed Scheme would extend into the more intimate, pastoral, riverside landscape. Despite the influence of the existing A47 on this area, such locations are associated with slightly higher levels of tranquillity than are typically the case over the wider landscape character area. The River Nene is the defining feature of the valley landscape and the main carriageway of the Proposed Scheme would pass within approximately 40m of the River Nene on a raised embankment above the adjacent riverbank. At Year 1, the slight increase of the footprint of the Proposed Scheme and associated embankments, would be inconsistent in terms of scale with the existing character and landform. Furthermore, this impact would occur close to the River Nene itself (and the route of the Nene Way which gives access to the riverside landscape) and would require the removal of some dispersed mature trees currently located within this land parcel.

- 1.3.28. The sensitivity of the Nene Valley landscape to the potential effects of large scale highway infrastructure has been assessed to be **medium**.
- 1.3.29. At year 1 of operation the Proposed Scheme would result in a **moderate adverse magnitude** of landscape change and a **moderate adverse significance** of effect on the Nene Valley landscape. A major adverse effect has not been identified as the localised effects of increased embankments located in close proximity to the River Nene are set against the presence of the existing A47 which is also located in an elevated position above the Nene valley at this point.
- 1.3.30. New planting would have been introduced along the southern side of the new dual carriageway between the petrol filling station and the dismantled railway. The extent of this planting to the west is limited by the status of the land as a County Wildlife Site. Broader planting is proposed to the east closer to wittering Brook. This coincides with the highest section of embankment closest to the River Nene.
- 1.3.31. This new planting would mitigate effects over time, therefore by year 15 of operation the Proposed Scheme would result in residual **minor adverse magnitude** of landscape change and a **slight adverse significance** of effect on the character of the Nene Valley landscape. Despite the slight increase in the footprint of the Proposed Scheme and associated embankment in proximity to the River Nene, proposed mitigation planting would largely screen it from view,

limiting change to the Nene valley landscape. The residual slight adverse effect reflects the potential for glimpsed views of the Proposed Scheme during winter months when trees are not in leaf and that it would be slightly closer than the existing A47. However, mitigation planting would be of sufficient depth that views of passing vehicles would be filtered to a greater extent than is the case in the baseline situation.

1.4. Summary

- 1.4.1. This assessment of the two landscape character areas located to the north and to the south of the Proposed Scheme has considered their respective value, susceptibility, sensitivity, and the level of effect upon them as the Proposed Scheme progresses from construction to year one of opening and through to year 15 of operation.
- 1.4.2. Despite the greater part of the Proposed Scheme falling within the landscape of the Nassaburgh Limestone Plateau, several areas of vegetation removal, and the values locally attached to that landscape (such as its associations with the poet Clare and its generally quiet rural ambiance), the assessment has concluded that the landscape of the Nassaburgh Limestone Plateau would, in the longer term, successfully accommodate the Proposed Scheme on its southern boundary with the Nene Valley and, once new planting has matured, baseline conditions would largely be restored and the long term residual effect upon its landscape character and quality would be limited to only slight adverse.
- 1.4.3. A smaller extent of the Proposed Scheme would fall within the Nene Valley landscape and associate with only limited vegetation removal, the assessment has concluded that the landscape of the Nene Valley would be less able to successfully accommodate the specific effects of the Proposed Scheme. This judgement reflects the proximity of the Proposed Scheme to the River Nene immediately west of the dismantled railway where the requirement for additional embankment would impact on the Nene Valley landscape to a slightly greater extent than the influence of the existing A47. The proximity of the route of the Nene Way (a locally promoted long distance footpath) suggests that, although localised, the landscape change would be perceived. However, the inclusion of areas of new planting upon the southern embankment would limit the change to the Nene Valley landscape and would screen it from view, limiting the change to glimpsed views during winter months which would not be too dissimilar the baseline situation.

1.5. References

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1.6. Glossary

Term	Description
AOD	Above Ordnance Datum
PRoW	Public Rights of Way
NCA	National (Landscape) Character Area
LCA	Local (Landscape) Character Area
AIA	Arboricultural Impact Assessment