



EAST PARK ENERGY

East Park Energy

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**Preliminary Environmental Information Report
Volume 2 – Technical Appendices**

Appendix 5-3: Effects on Landscape Character

September 2024

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EAST PARK ENERGY

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Appendix 5-3: Effects on Landscape Character

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1.0 LANDSCAPE CHARACTER AREAS

1.1 Introduction

1.1.1 The following landscape character areas (LCAs) have been scoped into the assessment of effects on landscape character and therefore are the ‘assessment LCAs.’ They comprise LCAs which have been identified in the following published landscape character studies:

- Bedford Borough Landscape Character Assessment 2020¹; and
- Huntingdonshire Landscape and Townscape Supplementary Planning Document 2022².

1.1.2 When describing the character areas within this appendix, the focus has been on identifying the aspects of the character description which are most evident within the Study Area of the site and not necessarily beyond the Study Area. While the landscape assessment considers the potential change to the overall LCA due to the Scheme, this approach applies a more detailed and considered approach to the assessment of landscape effects by providing the focus on the Study Area.

1.1.3 Refer to **PEIR Volume 3 Figures 5-2a and 5-2b** which illustrate the location of the LCAs.

1.1.4 The subsequent sections summarise the baseline context and construction and operation effects of the Scheme for each LCA. The LCAs have been listed as they are located geographically, in a west to east sequence.

2.0 LOCAL LANDSCAPE CHARACTER AREAS

2.1 Introduction

2.1.1 The following ‘assessment landscape character areas’ (LCAs) have been scoped into the assessment of landscape effects due to the Proposed Scheme. They comprise LCAs which have been identified in the following published landscape character studies:

- Bedford Borough Landscape Character Assessment (2020); and
- Huntingdonshire Landscape and Townscape SPD (2022).

2.2 Bedford LCA 1B: Riseley Clay and Farmland

Site Photographs of LCA 1B



Photo 1: A view taken from Viewpoint 17 which is located within LCA 1B, near to Pertenhall



Photo 2: A view taken from Viewpoint 28 which is located within LCA 1B, near to Brook End

Baseline Description

Baseline Context

- 2.2.1 This LCA is described within the Bedford Borough Landscape Character Assessment as:

“The Riseley Clay Farmland character area is a low lying landscape ranging from 30m to 90m AOD, with subtly varied topography... The area is dominated by arable farmland but scattered woodlands

(some ancient) give variety, often crowning the horizon in long views across the level fields. The large and medium fields are bounded by hedges and ditches, the former in mixed condition. Smaller fields and occasional horse pastures are clustered around settlements. Hedgerow trees, usually ash or oak are present, many mature and sometimes within fields marking lost hedgerows... This is a peaceful, rural area with a dispersed but regular pattern of scattered farmsteads and small villages with frequent medieval earthworks and tall stone churches. The major trunk road of the A6 passes through the west of the area and here disused and untended plots of land give an air of neglect locally.”

2.2.2 A summary of the key characteristics of this LCA are outlined below:

“Open lowland founded on Oxford Clay, subtly varied with gently undulating valleys.

A rural, peaceful area with a remote feel.

Dominated by arable farmland with some scattered woodlands and smaller horse paddocks near to settlements.

Varied field pattern with small to medium fields around villages plus open areas of larger geometric fields bounded by hedgerows, fences and ditches.

Hedgerows are in mixed condition with some low flailed and gappy or lost leaving extensive areas of open, arable land.

A number of ancient semi-natural woodlands have been retained (such as Holcott Wood and Hanger Wood) located predominantly along the eastern boundary, on slopes falling towards the North Marston Vale.

Scattered woods give variety to the distant views and include some ancient woodlands of high biodiversity interest including Swineshead Wood SSSI.

A few isolated areas of neutral unimproved grassland retain national importance for their biodiversity, notably Yelden Meadows.

Tributaries of the River Great Ouse traverse the area from west to east, their courses marked by isolated willows, crossed by modest bridges and forming a focus for settlement.

Dispersed settlement, low but even in density, consists of scattered farmsteads and villages, many made up of loose knit small groups of buildings known as ‘ends.’

A network of small rural roads and lanes often with wide grass verges cross the area although the presence of the A6 is felt locally in some poorly maintained and vacant sites along its route.

Remnants of the extensive medieval settlement of the area are present in frequent moated sites, earthworks denoting deserted or shifted villages and disused or isolated churches.

The historic parks at Melchbourne include ancient woodland, parkland trees and medieval earthworks.

Consistent network of footpaths, bridleways and green lanes with the Three Shires Way crossing the north west of the area.

Views are generally distant over the subtly undulating open farmland with blocks of woodland and wind turbines often visible on the skyline.”

Visual and Perceptual Character

- 2.2.3 The Bedford Borough Landscape Character Assessment states that the *“...often level to gently undulating topography and the large landscape scale results in long views, fringed by wooded horizons. Wind turbines form prominent features on the skyline, particularly to the north and west of the area. The lightly developed character and dispersed settlement pattern creates an often remote, isolated landscape character.”*

Settlement Form

- 2.2.4 The following describes both the cultural influences and nature of the built character present within this LCA:

“As a result of regeneration in the immediate post-Roman period, woodland dominated the ridge tops in the earlier middle ages. Woodland clearance (assarting) resulted in a pattern of small irregular fields.

The medieval villages tended to be located in the valley floors, surrounded by small irregular closes, often containing the earthwork remains of shrunken and shifting villages and hamlets. The settlement pattern is more nucleated towards the north and west of the area... The open fields were not extensive, occupying the gaps between the settlements and the woodland assart areas; the enclosure fields which replaced them tended not to be very regular, but have been subject to some boundary loss in the 20th century.

Melchbourne Park and its surroundings is an area representing good survival of historic features, including ancient woodland, historic boundaries and medieval earthworks. Scheduled monuments include Yelden Castle and village earthworks, and medieval moats at College Farm (Keysoe), Wold Farm (Odell) and Hall Close (Riseley).

Settlement within the Riseley Clay Farmland character area takes the form of dispersed rural villages and scattered farmsteads.

Villages often shelter in the tributary valleys, either following the line of the tributary or rising up the contours along roads that cross the watercourse and are sheltered by mature trees.

Some of the villages consist of a number of 'ends' often just made up of a few farms, cottages or a church. Examples of this are Pertenhall and Little Staughton. The spires of the frequent stone built churches form landmarks in this fairly level, open landscape.

The settlements are highly rural, often without street lighting. Large-scale agricultural buildings, such as sheds for egg production, are a prominent feature in this open landscape."

Landscape Sensitivity

- 2.2.5 The following points summarise the key considerations of this LCA in relation to the sensitivities of the landscape:

"The network of hedgerows and hedgerow trees which are vulnerable to further loss through lack of consistent maintenance and renewal of trees.

Fields close to settlement are vulnerable to subdivision for horse paddocks with consequent change of boundary character.

The field trees (remnants of former field boundaries) which may be lost due to over maturity and lack of appropriate management.

The pattern of dispersed farmsteads and rural villages with their distinctive structure of 'ends' which is vulnerable to infill and ribbon development along roads.

Tall stone built churches forming landmarks and creating a sense of place.

The historic earthworks and moats often associated with current day settlements and the remains of historic parks which are vulnerable to lack of management.

High level of recreational access via rights of way network including the Three Shires Way.

Areas of ecological value including ancient woodlands and unimproved grassland which require sustained management.

The tranquil, rural nature of the landscape which is vulnerable to urban influence particularly along the A6 trunk road and around the renewable energy development, particularly on former airfields.

Survival of irregular field pattern in assart areas and round historic settlements, often with earthwork remains.

Melchbourne Park and environs, comprising a significant survival of historic features.”

2.2.6 In addition, the following points summarise the key considerations of this LCA in relation to the visual sensitivities of the landscape:

“The sense of openness, wide views and skylines given variety by the subtly changing landform and the scattered woodlands which are vulnerable to the influence of large scale features including turbines and agri-industrial sheds.

The views to church spires, which are visually prominent landmarks in the landscape.”

Landscape Strategy

2.2.7 The Bedford Borough Landscape Character Assessment states that the overall strategy for this LCA is to “*conserve the open rural landscape with its scattered small scale settlements and farmsteads, and historic earthworks, parks and ancient woodlands and grasslands of high biodiversity value*

(seeking to give expression to the aspirations of a connected GI network shown in the Bedford GI Strategy) while enhancing the elements of the landscape which are in declining condition or detract from the rural character, in particular the hedgerows and hedgerow and field trees, and the margins of the A6.”

Susceptibility

2.2.8 Following a review of the baseline description of LCA 1B and site observations, the following is evident with regards the susceptibility of this LCA to the type of development proposed:

- This is a landscape dominated by large-scale arable fields, with subtly varied topography within shallow valleys. The large-scale of the landscape indicates a medium level of susceptibility to change.
- It is an open and rural LCA which is susceptible to the type of development proposed, i.e. through the potential for change to the pattern and appearance of the landscape, the possible restriction of some of the more open views across the arable fields towards skylines which include scattered woodland cover and church spires, which are visually prominent landmarks in the landscape.
- The part of the LCA which falls within the Study Area does not feature some of the aspects which are more susceptible to change and are evident elsewhere, such as historic parkland estates, indicating a slightly lower level of susceptibility than other parts of the LCA in this regard.

2.2.9 Overall, there are indicators of higher susceptibility to change, such as views across the landscape to church spires and the general lack of built form, however the LCA is large in scale, with a dominance of arable fields, and it is affected by some declining condition which detracts from the rural character, in particular the removal and fragmentation of hedgerows and hedgerow trees. The susceptibility of the LCA is therefore considered to be **Medium**.

Value

2.2.10 There is a relatively extensive rights of way network within this LCA, including the North Bedfordshire Heritage Trail, indicating local value. However, this area of the LCA doesn't associate with any landscape designations and mostly comprises a landscape of medium to large-scale arable farmland. Overall, this part of the LCA is of **Low** landscape value.

Combined judgement of sensitivity

2.2.11 Considering both the Medium susceptibility and Low value of LCA 1B, the overall sensitivity of has been assessed as **Medium**.

Construction effects

2.2.12 The majority of the western half of the Scheme would be located within LCA 1B and construction operations would therefore be evident here given that it would be located within open countryside, between the villages of Swineshead to the west and Little Staughton in the east.

2.2.13 The following would be the key construction operations located within LCA 1B:

- The construction of the solar array (Sites A and B) within largely arable fields.
- Excavations associated with the underground cable connections.
- Construction of a new access roads.
- Erection of temporary construction fencing and permanent boundary fencing.

2.2.14 During construction there would be a very small amount of clearance of existing hedgerow, specifically on Site B field boundaries to facilitate access. There would be no removal of trees due to the Scheme. Refer to Chapter 2, Table 2-34 and Figure 2-7c for information regarding vegetation clearance.

2.2.15 The following are the key indicators of landscape change to LCA 1B during construction:

- The overall duration of the construction activity would be 30 months.
- The majority of the construction would be located within arable fields.
- The construction operations would be highly visible within their locality and therefore would give rise to a localised change to landscape character for the duration of the works.
- The construction operations would introduce movement and noise within the landscape, primarily through: piling works; vehicle deliveries; and the operation of plant equipment. This is a large-scale landscape and the baseline includes the occasional movement of agricultural vehicles, however the construction would temporarily impact on tranquillity within LCA 1B.
- Evidence of construction would be partially limited by the retained tree and hedgerow cover around the site.

2.2.16 Refer to Section 5.7 of Chapter 5 for detail regarding mitigation in relation to the construction of the cable route, however in summary of the approach to restoring the landscape following completion of construction operations all agricultural land will be restored to its previous condition and the small amount of hedgerow which will have been removed during the construction period will be replanted.

2.2.17 Overall, it is considered that the construction of the Scheme would give rise to a moderate change in landscape characteristics of LCA 1B and would influence a large extent of the LCA. This would comprise a **Medium** scale of landscape effect. The extent of the construction operations within this large scale and robust landscape context would be perceived as **Extensive**. The construction period would be for a maximum of 30 months which is **Short-term**.

2.2.18 Taking account of all of these considerations, the level of effect due to construction on the landscape character of LCA 1B would be **Moderate Adverse** which is **Significant**.

2.2.19 The cable route would be restored back to agricultural land use following construction. No additional mitigation of landscape effects would be required.

Operation effects

2.2.20 This assessment considers the potential for the whole Scheme to impact this LCA and give rise to landscape effects, however the key components of the Scheme which fall within this LCA and which will give rise to direct change are:

- The introduction of solar arrays within Sites A and B, which are the two largest of the four solar arrays proposed within the overall Scheme boundary. Site A is located 0.7km to the west of Swineshead with Pertenhall located directly to the east. Site B is located between Keysoe to the west and Little Staughton the east. Solar panels will have a maximum height of 3m above ground level.
- Transformer units would be located throughout the solar arrays, at a maximum height of 3.5m above ground level.
- Associated access tracks.
- CCTV units.
- Paladin fencing.
- With reference to the Illustrative Environmental Masterplan on Figure 2-2, the planting of trees, hedgerow and grassland as part of the green infrastructure design for the Scheme.

2.2.21 For a full description of the Scheme, refer to Chapter 2.

2.2.22 The Scheme would largely comprise the introduction of a solar array into large-scale arable fields, outside the settlement boundary of small rural villages. The array would be relatively low-level, at a maximum of 3m above existing ground-level, and would have a uniform appearance, albeit given the

orientation of the panels to face south, there would be some variation in how it is perceived throughout the landscape.

- 2.2.23 While the solar array would mostly be located on the lower ground within the shallow valley within LCA 1B, the Scheme would follow the contours and demonstrate some undulation, albeit it would not alter the underlying topography. There would be some more elevated parts of the Scheme, particularly the south-western extent of Site A, which would be located on slightly higher ground than the rest of the array within Sites A and B. While the majority of Sites A and B would be subtly contained by the surrounding landform, limiting change to views across the landscape and influence on the skyline, the south-western extent of Site A would be slightly more elevated. Despite this, Site A would not alter any key views across the landscape and would be partly contained by blocks of woodland on or close to the boundary of the Site.
- 2.2.24 The Scheme would not alter the pattern of fields with the Site. The solar array would be contained within existing fields and not cross existing field boundaries. Aside from some very minor hedgerow loss to facilitate access within Site B, the Scheme would not require removal of hedgerow which defines field boundaries.
- 2.2.25 Associated infrastructure within Sites A and B would be relatively subtle. Transformers and CCTV columns would be located throughout the Site and, while protruding slightly above the solar array, they would be broadly contained by the broader solar array as an influence on the underlying landscape character. Access tracks would be surfaced with an unbound material, similar to existing farm tracks, and would therefore not be uncharacteristic of the existing landscape.
- 2.2.26 As described here, the Scheme would alter some of the key characteristics within this central extent of LCA 1B, not least the change in land-use, and it would have a relatively large footprint. However, in the most part it would retain the overall characteristics and not fundamentally alter the nature of the

LCA. This is a large-scale, gently undulating and open landscape which can accommodate a development of this scale and low-level height. The Scheme would not alter the underlying pattern of the landscape and the Illustrative Environmental Masterplan has been designed to enhance and strengthen field boundaries through the additional planting of hedgerow and hedgerow trees. The Scheme would not require the removal of trees and there would be minimal loss of hedgerow to facilitate cable connections and site access.

- 2.2.27 The Scheme would be suitably low-level such that, aside from some very close-range views of the Scheme in which the panels will be highly visible, the key characteristics of views across the landscape to historic church spires would be retained and there would be no loss of the scattered trees and woodland blocks that fragment the large-scale arable landscape.
- 2.2.28 While there would be retention of the structure of fields, the array would give rise to a partial tonal change in the appearance of fields and it would be evident that there has been a change in land use from arable crop to solar panels. This change would alter a relatively large extent of the LCA, however due to the gently undulating nature of the landscape and the presence of hedgerow and intermittent blocks of woodland on field boundaries, the Scheme would rarely be perceived as one array, which would reduce its perceived scale.
- 2.2.29 At Year 0 of operation it is considered that the Scheme would give rise to a moderate change in landscape characteristics of LCA 1B and would influence a large extent of the LCA. This would comprise a **Medium** scale of landscape effect.
- 2.2.30 The extent of the Scheme within this large scale and robust landscape context would be perceived as **Extensive**. The Scheme would be in situ for up to 10 years prior to the establishment of mitigation planting (and consideration of the Year 10 assessment), therefore the Year 0 landscape effect is considered to be **Medium-term**. Taking account of all of these considerations, the level

of effect during operation of the Scheme on the landscape character of LCA 1B at Year 0 would be **Moderate Adverse** which is **Significant**.

2.2.31 At Year 10 of operation and beyond, the effect is considered to be **Long-term**. The effect is considered to be **Partially Reversible** because when the solar array and associated infrastructure is removed after 40 years of operation, while the solar array and associated infrastructure would be removed, the landscape would be altered from the baseline situation as the planting implemented at Year 0 would remain. Mitigation planting would have established to an extent that the Scheme would assimilate further within LCA 1B. Linear belts of planting beside the Scheme, specifically on field boundaries, would reduce its visibility within the wider landscape and enhance an existing characteristic of LCA 1B. At Year 10 there would be a **Minor to Moderate Adverse** level of effect which is **Not Significant**.

2.3 Huntingdonshire LCA: Northern Wolds

Site Photograph of Northern Wolds LCA



Photo 3: A view taken from Viewpoint 19 which is located at the very southern extent of Northern Wolds LCA, looking towards Honeyhill Wood

Baseline Description

Baseline Context

2.3.1 The Site does not fall within the Northern Wolds LCA, however its southern extent is located 0.6km north of the Site. With reference to the ZTV on Figure 5-3a and the landscape character areas shown on Figure 5-2b, the Scheme would not be evident from the majority of this LCA due to screening by woodland which is located within the northern extent of the Study Area, specifically Honeyhill Wood and Swineshead Wood. However, there is a relatively small area of ZTV coverage north of Pertenhall which indicates that the Scheme could have some visual influence on the LCA and so an assessment of potential indirect effects is set out here.

2.3.2 This LCA is described within the Huntingdonshire Landscape and Townscape Supplementary Planning Document as:

“The Northern Wolds landscape character area forms a broad north-south strip on the western edge of Huntingdonshire, extending from the Nene Valley in the north to the Southern Wolds to the south east with the Central Claylands to the east.”

Two processes have been particularly important in the shaping of the Northern Wolds: landform and medieval settlement. The area contains the highest land in Huntingdonshire with a distinctive ridged topography formed by streams flowing down from this higher land towards the Fens and Central Claylands. The streams have eroded pronounced valleys which are very different in character from the intervening higher land. Medieval influence is still strongly visible in the landscape of the Northern Wolds, and is reflected in the high number of Scheduled Monuments and ecclesiastical architecture.”

2.3.3 A summary of the key characteristics of this LCA are outlined below:

“A strong topography of ridges bisected by pronounced valleys.

Valleys are well vegetated and intimate in scale, while ridges/plateaux feel more open.

An historic landscape, containing many medieval features.

Dispersed pattern of historic villages, with little modern development.

Distinctive square church towers topped with spires form characteristic landmarks.”

Visual and Perceptual Character

2.3.4 The Huntingdonshire Landscape and Townscape Supplementary Planning Document states that the landscape character of this LCA is *“achieved through the distinctive and repeated pattern of ridges, valleys and regularly spaced settlements. The ridges are generally used for arable farming and have a relatively open feel with long views and few hedgerow trees. In contrast, the valleys have a higher proportion of land in pastoral use and typically feel more enclosed due to smaller field sizes and less views out. The valleys are more densely vegetated with large mixed hedgerows containing a significant number of oak trees. The streams tend to be narrow with their routes identifiable by a line of trees along the banks.”*

Settlement Form

- 2.3.5 The following describes both the cultural influences and nature of the built character present within this LCA:

“Villages are generally regularly spaced, linked by fairly straight roads and closely associated with the field pattern.

Medieval settlement patterns still predominate in this area with some villages clustered around village greens and others being more linear in form. Most villages are situated near the tops of valley sides.

A notable influence on the landscape is the distinctive church towers with spires on square bases which frequently stand out on the horizon.

Villages generally contain many trees and have a wooded appearance in distant views.

Medieval influences are still visible in the landscape, reflected in the high number of scheduled monuments including the earthworks remaining from abandoned settlements such as Washingley. The landscape contains numerous archaeological sites of manors, fishponds and ridge and furrow field patterns. Where the landscape is interrupted by the A14 tranquillity is reduced locally but the visual impact is limited due to the east-west pattern of the ridged topography

The Northern Wolds are an attractive and relatively unspoilt part of the district with a strong historical character. Both villages and countryside are vulnerable to unsympathetic development...”

Landscape Sensitivity

- 2.3.6 The following points summarise the key considerations of this LCA in relation to the sensitivities of the landscape:

“Protection and enhancement of the distinctive characters of the valley and plateaux landscapes through retention of the established pattern of smaller fields and meadows in the valleys, and the maintenance of long views from the upland areas.

Protection of key views towards the distinctive skyline of ridge tops, church towers and woodland.

Preservation of archaeological features, with improved public access and enhanced interpretation where appropriate.

Retention of historic settlement character through maintenance of village greens and other distinctive features and good siting and design of new buildings.

*Protection of the parkland setting to Kimbolton village and School
Protection of the existing watercourses in the area and enhancement of their biodiversity value.*

Protection of ancient hedgerows and oak trees within the valleys.”

Landscape Strategy

- 2.3.7 The Huntingdonshire Landscape and Townscape Supplementary Planning Document states that development proposals should consider the following:

“Protect key views towards the distinctive skyline of ridge tops, church towers and woodland.

Protect and enhance historic settlement character through careful siting and design of new buildings.

Improve the nature conservation value of the streams and immediate valley sides.

Conserve both designated and non-designated heritage assets with improved public access and interpretation where appropriate.

Conserve or where appropriate enhance the significance of the heritage assets including any contribution made to significance by their settings.

Conserve the archaeological heritage dispersed throughout the landscape.

Protect and enhance the distinctive characters of the valley and plateau landscapes through maintenance of field patterns and long distance views from the upland areas and protection of ancient hedgerows and oak trees within the valleys.

Protect the parkland setting to Kimbolton village and School.”

Susceptibility

- 2.3.8 The area is an intimate, historic landscape with several Scheduled Monuments including numerous archaeological sites of manors, fishponds and ridge and furrow field patterns. Due to the sense of enclosure provided by the densely vegetated valleys and ridged topography, this is a tranquil landscape. The LCA is partly enclosed with limited views out from the valleys which reduces its susceptibility, however views are more extensive from the ridges. On balance, the LCA is considered to have a **Medium to High** susceptibility to change.

Value

- 2.3.9 There are views of historic features such as churches and bridging points which indicate value within the LCA. However, the area doesn't associate with

any overarching landscape designations and, this part of the LCA is of **Low** landscape value

Combined judgement of sensitivity

2.3.10 Considering both the susceptibility and value of the Northern Wolds LCA, the overall sensitivity of has been assessed as **Medium**.

Description of the Development

2.3.11 The Scheme does not fall within Northern Wolds LCA, however it is within 0.6km of Site A and 1.8km of Site B which would comprise the parts of the Scheme identified in the ZTV as potentially being visible from the LCA.

2.3.12 For a full description of the Scheme, refer to Chapter 2.

Construction effects

2.3.13 While there would be no construction located directly within the Northern Wolds LCA, the following would be the key construction operations located within Sites A and B which would potentially be evident from a small extent of the southern extent of the LCA, just to the north of Pertenhall:

- The construction of the solar array (Sites A and B) within largely arable fields.
- The construction operations would introduce movement and noise within the adjacent landscape, primarily through: piling works; vehicle deliveries; and the operation of plant equipment.

2.3.14 The following are the key indicators of landscape change to Northern Wolds LCA during construction:

- The construction operations would be located at a lower level, below the Northern Wolds LCA, with existing long-range views from the LCA across to higher ground beyond the Site to the south, retained.
- The overall duration of the construction activity would be 30 months.

- Evidence of construction would be partially limited by the retained tree and hedgerow cover around the site. With reference to Figures 5.2b and 5.3a, the ZTV coverage within this LCA would be limited both during construction and operation of the Scheme.
- While the construction operations would introduce some movement to the adjacent LCA, primarily through piling activity, vehicle deliveries and the operation of plant equipment, the influence on this LCA would be very limited given the limited visual influence indicated by Figure 5.3a

2.3.15 Overall, it is considered that the construction of the Scheme would form a reasonably inconspicuous change in landscape characteristics of Northern Wolds LCA 1B and would influence a very small extent of the LCA. This is due to the influence of movement and possible noise in the adjacent landscape. This would comprise a **Low** scale of landscape effect. The extent of the construction operations adjacent to this LCA would be perceived as **Localised**. The construction period would be for a maximum of 30 months which is **Medium-term**.

2.3.16 The construction of the Proposed Scheme would result in at most a **Minor Adverse** level of landscape effect on Northern Wolds LCA which is **Not Significant**.

Operation effects

2.3.17 As stated within the construction assessment, there would be no direct physical change to Northern Wolds LCA as it is located approximately 0.6km north of the Scheme (Site A). While the Site is not located within Northern Wolds LCA, there is a relatively small area of ZTV coverage at the very southern extent of the LCA which indicates that the Scheme would have some visual influence on it and so an assessment of potential indirect effects is set out here. The ZTV has identified that the solar arrays within Sites A and B would be evident from here, set in a lower position to this LCA.

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- 2.3.18 The Scheme would largely comprise the introduction of a solar array into large-arable fields, located just outside this LCA. The array would be relatively low-level, at a maximum of 3m above existing ground-level, and would have a generally uniform appearance, albeit given the orientation of the panels to face south, the rear of the panels would be evident from the Northern Wolds LCA given that the panels will face in the opposite direction.
- 2.3.19 At Year 0, views of the Scheme would be filtered by intervening vegetation located on field boundaries within the northern extent of the adjacent LCA (LCA 1B: Riseley Clay and Farmland). The low position of the Scheme in relation to this slightly more elevated LCA would retain views from across the landscape towards higher ground further south. There would be glimpsed views of the Scheme, however these would be from a limited extent of the LCA and there would be no fundamental change to the characteristics of Northern Wolds LCA.
- 2.3.20 At Year 0 of operation it is considered that the Scheme would give rise to a **Negligible** scale of effect, which is **Not Significant**.
- 2.3.21 At Year 10, mitigation planting located on the northern boundaries of Sites A and B would have established to an extent that it would assimilate the Scheme further within the landscape in the vicinity of the southern extent of the Northern Wolds LCA. There would remain the chance for glimpsed views of the Scheme, particularly Sites A and B, and therefore there would be remain a **Negligible** level of effect on LCA A3, which is **Not Significant**.

2.4 Huntingdonshire LCA: Southern Wolds

Site Photographs of Southern Wolds



Photo 4: A view taken from Viewpoint 59 which is located within LCA Southern Wolds, near to Little Staughton Airfield



Photo 5: A view taken from Viewpoint 74 which is located within LCA 1B, in open fields, 2km to the east of Staughton Highway

Baseline Description

Baseline Context

- 2.4.1 The Huntingdonshire Landscape and Townscape Supplementary Planning Document describes this Southern Wolds LCA as follows:

“The Southern Wolds landscape character area incorporates the lower valleys of the River Kym and Ellington Brook. It completely encircles the Grafham Water landscape character area. The Southern Wolds forms a transition area between the Northern Wolds which lie to the north west and the Great Ouse Valley which is to the

east. The Central Claylands is also situated to the north of part of this area.

The topography of the Southern Wolds is similar to that of the Northern Wolds in comprising ridges and valleys but given the greater scale of the rivers here it consists of just two broad valleys with very gently undulating ground divided by the steep ridge that contains Grafham Water. Settlements are more scattered in this area and parishes larger suggesting a more dispersed pattern of historic development. However, there are several ancient monuments including medieval moats and sites of Roman buildings.”

2.4.2 A summary of the key characteristics of this LCA are outlined below:

“Relatively gentle topography, including the broad valleys of the river Kym and the Ellington Brook.

A well-wooded landscape, with hedged fields, and some more recent plantations.

Scattered villages and few isolated farms.

Significant modern influences on the landscape, including conifer plantations, power lines, housing estates, industrial areas, airfield, prison and the Anglian Water buildings around Grafham Water.”

Visual and Perceptual Character

2.4.3 The Huntingdonshire Landscape and Townscape Supplementary Planning Document states that the *“strongest visual characteristic of the Southern Wolds is the extent of woodland cover, particularly on the central ridge which divides the Kym and Ellington valleys. There are a number of woodland types within the area, including ancient woodland for instance at Brampton Wood, conifer plantations and substantial hedgerows and hedgerow trees. These promote a sense of enclosure contributing to the tranquillity of the area. The*

valley associated with Ellington Brook is dominated by the A14 which runs along its centre. The brook itself is narrow and meanders tightly within a wide floodplain; it is visible in the landscape as a line of trees and vegetation.

- 2.4.4 *For most of the area the River Kym meanders through a broad, shallow valley but around Kimbolton the valley sides become steeper creating a bowl around the village. Large fields of arable crops are interspersed with woodland and copses and separated by substantial hedgerows. This part of the Southern Wolds has a very rural character and benefits from long views over the surrounding countryside.”*

Settlement Form

- 2.4.5 The following describes both the cultural influences and nature of the built character present within this LCA:

“There are several villages in the area with differing characters. Spaldwick and Ellington have much in common with the villages of the Northern Wolds, including their distinctive church spires while the eastern village of Buckden has more in common with the settlements in the Great Ouse Valley.

The largest settlement is in the south east area where the villages of Eaton Ford and Eaton Socon grew up the valley side of the Great Ouse and amalgamated to become the western part of St Neots. As well as several settlements, agricultural buildings and farms are found throughout the area.

A key difference between the settlements in the Southern and Northern Wolds is the extent of modern development; most villages in the Southern Wolds contain at least one substantial area of development built since the 1950s. The quality of integration of this with the more historic parts of villages varies; where non-local materials predominate and screening on the settlement edge is limited these areas can give rise to significant intrusions into the

landscape. One of the most obvious examples of this is the Newtown area north of the historic part of Kimbolton which has seen substantial development since the 1970s.

The landscape has also been significantly influenced by the introduction of WWII airfields. Kimbolton airfield is now partially redeveloped as industrial estates and Little Staughton largely used now as a solar farm.”

Landscape Sensitivity

2.4.6 The following points summarise the key considerations of this LCA in relation to the sensitivities of the landscape:

“Preservation and management of existing deciduous woodlands to maintain and enhance biodiversity.

Promotion of opportunities to integrate soft edges to existing developments and reduce the landscape impact of visually harsh or intrusive settlement edges.

Management of streams and rivers and their associated valley floors to maximise their ecological value.

Protection and restoration of riverside meadows.

Protection of the rural character of long distance view from the Kym Valley.”

Landscape Strategy

2.4.7 The Huntingdonshire Landscape and Townscape Supplementary Planning Document states that development proposals should consider the following:

“Ensure high quality landscaping to soften the impact of any new building on the edges of settlements to improve integration with the surrounding countryside.

Enrich the area by reinforcing its special qualities and acknowledging its local character.

Protect the rural character of long distance views of and from the Kym Valley.

Promote opportunities for conservation and wildlife initiatives to support the area's contribution to biodiversity.

Improve the nature conservation value of the rivers and their immediate valley sides.”

Susceptibility

2.4.8 Following a review of the baseline description of Southern Wolds LCA and site observations, the following is evident with regards the susceptibility of this LCA to the type of development proposed:

- This LCA is a very gently undulating landscape comprising large-scale arable farmland. While there is a gentle slope towards the River Kym in the northern extent of the Study Area, it was observed on Site that this is a very subtle change in topography, enhancing the perceived scale of the landscape.
- The character description refers to the LCA being well wooded with hedged fields. While this is more evident in the northern extent of the Study Area, just to the south of Grantham Water where large woodland blocks are evident, the very southern extent of the LCA, within which the Site is located, is more open and less well wooded. Fields are bounded by hedgerow, however the intensification of farming has evidently involved the removal of hedgerow cover. Combined with the large-scale of the arable fields, this reduces the sense of enclosure and tranquillity, reducing the level of susceptibility.
- Settlement is generally sparse and comprises scattered villages and isolated farms.

- There are notable existing built influences on the landscape such as lines of pylons, the industrial estates at nearby Kimbolton (just to the north of the Study Area) and airfields, one of which now comprises a solar farm at Little Staughton.

2.4.9 Overall, while there are some distinct landscape characteristics indicating higher susceptibility to change, the LCA is large in scale, with a dominance of arable fields and it is affected by the presence of modern built influences such as power lines, solar farms and airfields which detracts from the rural character. There is also less woodland cover in the southern extent of the LCA. The susceptibility of the LCA is therefore considered to be **Low to Medium**.

Value

2.4.10 There is a relatively extensive rights of way network within this LCA, including the Three Shires Way, indicating local value. However, this area of the LCA doesn't associate with any landscape designations and mostly comprises a landscape of medium to large-scale arable farmland. Overall, this part of the LCA is of **Low** landscape value

Combined judgement of sensitivity

2.4.11 Considering both the Low to Medium susceptibility and Low value of the Southern Wolds LCA, the overall sensitivity of has been assessed as **Low**.

Construction effects

2.4.12 The majority of the eastern half of the Scheme would be located within Southern Wolds LCA and construction operations would therefore be evident here given that it would be located within open countryside, between the villages of Great Staughton to the north-west and Hail Weston in the east.

2.4.13 The following would be the key construction operations located within Southern Wolds LCA:

- The construction of the solar array (Sites C and D) within largely arable fields.
- Excavations associated with the underground cable connections.
- Construction of a new access roads.
- Erection of temporary construction fencing and permanent boundary fencing.
- Construction of the BESS and Substation components of the Scheme. Two potential locations for the East Park BESS and East Park Substation are being considered: Site C, which is Option 1; and Site D, which is Option 2. Both of these locations fall within the Southern Wolds LCA.
- The presence of the main construction compound.

2.4.14 During construction there would be a very small amount of clearance of existing hedgerow, specifically on a Site C field boundary, to facilitate access. There would be no removal of trees due to the Scheme. Refer to Chapter 2, Table 2-34 and Figure 2-7c for information regarding vegetation clearance.

2.4.15 The following are the key indicators of landscape change to Southern Wolds LCA during construction:

- The overall duration of the construction activity would be 30 months.
- The majority of the construction would be located within arable fields.
- The construction operations would be highly visible within their locality and therefore would give rise to a localised change to landscape character for the duration of the works.
- The construction operations would introduce movement and noise within the landscape, primarily through: piling works; vehicle deliveries; and the operation of plant equipment. This is a large-scale landscape and the baseline includes the occasional movement of agricultural vehicles, however the construction would temporarily impact on tranquillity within Southern Wolds LCA.
- Evidence of construction would be partially limited by the retained tree and hedgerow cover around the site.

- While the construction operations would introduce some movement within the landscape, primarily through vehicle deliveries and the operation of plant equipment, this would be relatively limited given the large-scale of the wider landscape and considering that the baseline includes the occasional movement of agricultural vehicles.
- 2.4.16 Refer to Section 5.7 of Chapter 5 for detail regarding mitigation in relation to the construction of the cable route, however in summary of the approach to restoring the landscape following completion of construction operations all agricultural land will be restored to its previous condition and the small amount of hedgerow which will have been removed during the construction period will be replanted.
- 2.4.17 The construction of substation and BESS Options 1 and 2 would have broadly similar landscape effects and, while the construction of these components would require more plant equipment and operational activity than for the solar arrays, which in each case would be constructed in the option site not selected (i.e. if Option 1 is selected for the substation and BESS, the Option 2 part of the Site would contain solar array, and vice versa), each Option area is located in open areas of farmland with no difference in impact on landscape elements during construction. The Option 1 site benefits from screening by New Wood directly to its north, while the Option 2 site is in a slightly larger scale landscape and existing pylons reduce the susceptibility of this part of the LCA very slightly. However, overall, construction activity within Option 1 and Option 2 sites would contribute a similar amount to the overall level of landscape effect on this LCA during the construction phase.
- 2.4.18 Overall, it is considered that the construction of the it is considered that the construction of the Scheme would give rise to a moderate change in landscape characteristics of Southern Wolds LCA and would influence a large extent of the LCA. This would comprise a **Medium** scale of landscape effect. The extent of the construction operations within this large scale and robust landscape context would be perceived as **Extensive**. The construction period would be for a maximum of 30 months which is **Medium-term**.

2.4.19 Taking account of all of these considerations, the level of effect due to construction on the landscape character of Southern Wolds LCA would be **Moderate Adverse** which is **Significant**.

2.4.20 The cable route would be restored back to agricultural land use following construction,. No additional mitigation of landscape effects would be required.

Operation effects

2.4.21 This assessment considers the potential for the whole Scheme to impact this LCA and give rise to landscape effects, however the key components of the Scheme which fall within this LCA and which will give rise to direct change are:

- The introduction of solar arrays within Sites C and D, which are the two smallest of the four solar arrays proposed within the overall DCO boundary. Site C is located 0.2km to the south of Great Staughton and Site D is more separated from settlement and is located 1.1km west of Hail Weston.
- Transformer units would be located throughout the solar arrays, at a maximum height of 3.5m above ground level.
- The introduction into either Site C (Option 1) or D (Option 2) of the Substation and Battery Energy Storage System (BESS) which would be a maximum of 13.6m AGL for the substation and 4.5m AGL for the BESS.
- Associated access tracks, CCTV units and a paladin fence (aside from palisade fence around the Substation and BESS components).
- With reference to the Illustrative Environmental Masterplan on Figure 2-2, the planting of trees, hedgerow and grassland as part of the green infrastructure design for the Scheme.

2.4.22 For a full description of the Scheme, refer to Chapter 2.

2.4.23 The Scheme would largely comprise the introduction of a solar array into large-arable fields, outside the settlement boundary of small rural villages. The array would be relatively low-level, at a maximum of 3m above existing

ground-level, and would have a uniform appearance, albeit given the orientation of the panels to face south, there would be some variation in how it is perceived throughout the landscape.

- 2.4.24 The solar array would mostly be located on the lower ground within the Southern Wolds LCA, which is broadly flatter than the western extent of the Study Area and LCA 1B. The Scheme would follow the contours and would not alter the underlying topography. The southern extent of Sites C and D are slightly more elevated than the northern extents of the Site which would orientate the Scheme to face slightly to the north. However, this comprises a subtle change in levels.
- 2.4.25 The Scheme would not alter the pattern of fields with the Site. The solar array would be contained within existing fields and not cross existing field boundaries. Aside from some very minor hedgerow loss to facilitate access within Site C, the Scheme would not require removal of hedgerow which define field boundaries.
- 2.4.26 Sites C and D would have a slightly less extensive ZTV than Sites A and B as is illustrated by Figures 5-3a and 5-3b, given their smaller scale and the screening effect of occasional woodland blocks. This is particularly evident within the south-eastern extent of the Study Area.
- 2.4.27 Associated infrastructure within Sites A and B would be relatively subtle. Transformers and CCTV columns would be located throughout the Site and, while protruding slightly above the solar array, they would be broadly contained by the broader solar array as an influence on the underlying landscape character. Access tracks would be surfaced with an unbound material, similar to existing farm tracks, and would therefore not be uncharacteristic of the existing landscape.
- 2.4.28 The Substation and BESS components of the Scheme would be directly located within the Southern Wolds LCA and, given their larger vertical scale than the solar array (13.6m for the Substation and 4.5m for the BESS) and utilitarian appearance, would contribute to a slight increase in landscape

change within the vicinity of Sites C and D. However, these components would be set within the wider solar array, which would partially reduce their influence on the character area and there is precedent nearby at Eaton Socon Substation, which is located at the very eastern extent of the Site.

- 2.4.29 With regards the potential differences in landscape effects between substation and BESS Options 1 and 2, each would have broadly similar landscape effects as the other and, in each case, solar array would be located in the option site not selected (i.e. if Option 1 is selected for the substation and BESS, the Option 2 part of the Site would contain solar array, and vice versa). Each Option area is located in open areas of farmland with no difference in impact on landscape elements. The Option 1 site benefits from screening by New Wood directly to its north, while the Option 2 site is in a slightly larger scale landscape and in closer proximity to existing electrical infrastructure which reduces the susceptibility of this part of the LCA very slightly. However, overall, the location of the substation and BESS elements within the Option 1 and Option 2 sites would contribute a similar amount to the overall level of landscape effect on this LCA.
- 2.4.30 The Scheme would alter some of the key characteristics within this central extent of Southern Wolds LCA, however in the most part it would retain the overall characteristics and not fundamentally alter the nature of the LCA. This is a large-scale, very gently undulating and open landscape which can accept a development of this scale and relatively low-level height. The Scheme would not alter the underlying pattern of the landscape and the Landscape Masterplan has been designed to enhance and strengthen field boundaries through the additional planting of hedgerow and hedgerow trees. The Scheme would not require the removal of trees and there would be minimal loss of hedgerow to facilitate the underground cable connections. All hedgerows would be replanted following the completion of construction of the cable route.
- 2.4.31 The Scheme would be suitably low-level such that the characteristic of open views across the landscape would be retained and there would be no loss of

the scattered trees and woodland blocks that fragment the large-scale arable landscape.

- 2.4.32 While there would be retention of the structure of fields, there would be a partial tonal change in the appearance of fields, particularly when the landscape is viewed from the higher ground at the far extents of the Study Area, and it would be evident that there has been a change in land use from arable crop to solar panels. This change would alter a relatively large extent of the LCA, however due to the gently undulating nature of the landscape and the presence of hedgerow and intermittent blocks of woodland on field boundaries, the entire Scheme would not be visible as one entity, which would reduce its perceived scale.
- 2.4.33 The presence of existing built influences on the landscape such as lines of pylons and airfields, one of which now comprises a solar farm at Little Staughton, would also reduce the perceived change due to the Scheme.
- 2.4.34 At Year 0 of operation it is considered that the Scheme would give rise to a small change in landscape characteristics of Southern Wolds LCA and would influence a large extent of the LCA. This comprises a **Small to Medium** scale of landscape effect.
- 2.4.35 The extent of the Scheme within this large scale and robust landscape context would be perceived as **Extensive**. The Scheme would be in situ for up to 10 years prior to the establishment of mitigation planting (and consideration of the Year 10 assessment), therefore the Year 0 landscape effect is considered to be **Medium-term**. Taking account of all of these considerations, the level of effect due to construction on the landscape character of Southern Wolds LCA would be **Minor to Moderate Adverse** which is **Not Significant**.
- 2.4.36 At Year 10 of operation and beyond, the effect is considered to be **Long-term**. The effect is considered to be **Partially Reversible** because when the solar array and associated infrastructure is removed after 40 years of operation, while the solar array and associated infrastructure would be removed, the landscape would be altered from the baseline situation as the planting

implemented at Year 0 would remain. At Year 10, mitigation planting would have established to an extent that the Scheme would assimilate further within Southern Wolds LCA. Linear belts of planting beside the Scheme, specifically on field boundaries, would limit its visibility within the wider landscape and enhance an existing characteristic of Southern Wolds LCA. However, at Year 10 there would remain a **Minor Adverse** which is **Not Significant**.

2.5 Bedford LCA 1D: Thurleigh Clay Farmland

Site Photograph of Thurleigh Clay Farmland



Photo 6: A view taken from Viewpoint 81, looking north across Thurleigh Clay Farmland and towards the Site in the far distance

Baseline Description

Baseline Context

- 2.5.1 The solar array components of the Scheme do not fall within the LCA 1D, however the underground cable would run through the north-eastern extent of the LCA. The cable route would be restored to its original conditions, largely arable farmland, on or before completion of construction, and as such there would be no direct operational landscape effects on this LVA.
- 2.5.2 With reference to the ZTV on Figure 5-3a and the landscape character areas shown on Figure 5-2b, the Scheme would not be evident from the majority of this LCA due to screening by subtle landform undulations and woodland (such as High Wood and Huntingdon Wood) located directly to the south of the Site. However there is a relatively small area of ZTV coverage west of Little Staughton and another west of Duloe which indicates there the Scheme, in particular Sites B, C and D, would have some visual influence on the LCA and so an assessment of potential indirect effects is set out here.
- 2.5.3 This LCA is described within the Bedford Borough Landscape Character Assessment as:

“The Thurleigh Clay Farmland character area is a low lying landscape ranging from 30m to 90m AOD, with largely level topography founded on Oxford Clay overlain by Boulder Clay with subtly undulating tributary valleys to the east. It is dominated by arable farmland with a few scattered woodlands (including ancient woodland) giving some variety, and crowning the horizon in long views across the level fields. The large fields are bounded by hedges and ditches, the former sometimes in poor condition or lost altogether causing the visual merging of individual fields into large open areas. Hedgerow trees, usually ash or oak are present, many mature and sometimes within fields marking lost hedgerows. A network of quiet rural lanes connects the settlements and provide an important resource for informal recreation. On the higher ground to the west, the presence of Thurleigh Airfield creates a less rural landscape with industrial fencing and large scale airfield buildings visible on the skyline plus extensive loss of field boundaries making a more open landscape.”

2.5.4 A summary of the key characteristics of this LCA are outlined below:

“Open, largely level area founded on Oxford Clay overlain by Boulder Clay.

Dominated by arable farmland generally with large irregular fields plus smaller fields around settlements. Remnant areas on unimproved grassland persist along road verges.

Hedgerows are in mixed condition with some low flailed and gappy or lost leaving areas of open arable land with long views.

Hedgerow trees are prominent in the level landscape, many of them mature, including remnant trees within fields plus substantial recent plantings lining some rural roads.

A few scattered woods give variety to the distant views, particularly to the north and east of the area.

Minor tributaries of the River Great Ouse cross the eastern part of the area from east to west causing subtle variations in topography.

Thurleigh Airfield dominates the higher plateau to the west with industrial fencing and lack of field boundaries emphasising the exposed, empty character of this section of the area.

Dispersed low density settlement, consists of scattered farmsteads and villages, often made up of loose knit small groups of buildings known as 'ends,' with some villages spreading along roads.

Stone churches with tall towers are landmarks in the level landscape.

Settlements often shelter amongst mature trees, with occasional coniferous or poplar shelter belts associated with farmsteads.

A network of small rural roads and lanes cross the area.

Rich heritage of earthwork sites (particularly moats), including the hillfort and moat at Bolnhurst, the Priory and moats at Bushmead, and a medieval moat, fishponds and fowling complex at Manor Farm, Colmworth.

Historic parkland at Bushmead Priory includes blocks of ancient woodland, and a complex moated site.

Network of footpaths, bridleways and green lanes particularly to the east.

Views are generally distant over the largely level farmland with Thurleigh Airfield dominant to the west."

Visual and Perceptual Character

- 2.5.5 The Bedford Borough Landscape Character Assessment states that the *“variable level of hedgerow cover in some instances creates long views across the character area, with variety and interest added by scattered woodlands and small tributaries, which create subtle topographic variation. An historic character is imparted at points by parklands (Bushmead Priory) and by moated settlements, as well as vernacular buildings/settlement, although large scale modern/industrial development is often prominent to skylines e.g. at Thurleigh Airfield.”*

Settlement Form

- 2.5.6 The following describes both the cultural influences and nature of the built character present within this LCA:

“Occupation of this area began during the Bronze Age, as is indicated by the cropmarks of ploughed out barrows in some of the tributary valleys. By the late Iron Age and Roman period, the landscape was extensively settled and would have been comparatively open.

The area is marked by a very dispersed settlement pattern, resulting in a landscape with areas of small irregular ancient closes. Many of the dispersed ‘ends’ were associated with moated sites and retain the earthworks of shrunken or shifted settlement. The open fields were fragmentary in nature, and the enclosure fields which replaced them tended to be fairly irregular in layout.

On the lower slopes in the east of the area towards the Ouse valley the open fields of Eaton Socon and Roxton historic parishes were more extensive; the enclosure boundaries here were more regular in layout, but many were removed to create ‘prairie’ fields in the later 20th century.

The precinct of Bushmead Priory has been developed since the Dissolution into an area of parkland, incorporating blocks of ancient woodland, one of which contains a complex moated site. The priory refectory survives within an intimate wooded setting, and is open to the public.

The Second World War airfield at Thurleigh occupied a large area of plateau at the west end of the area, and sits within an open landscape from which many of the historic field boundaries have been removed.

The area is rich in earthwork sites (particularly moats), which make a significant contribution to the historic character of the landscape. The Scheduled Monuments are the hillfort and moat, Manor Farm, Bolnhurst, moats at Blackburn Hall (Thurleigh), Greensbury Farm and Turnpike Farm (Bolnhurst), the Priory and moats at Bushmead, and a medieval moat, fishponds and fowling complex at Manor Farm, Colmworth.

Settlement within the Thurleigh Clay Farmland character area takes the form of dispersed villages and scattered farmsteads. Villages often shelter in the tributary valleys, either following the line of the tributary or rising up the contours along roads that cross the watercourse. Many consist of a number of 'Ends' each often just made up of a few farms, cottages or a church. Examples of this are Colmworth, Thurleigh and Keysoe Row.

Settlement along the linking roads between the 'Ends' tends towards forming linear villages. The spires of stone built churches (such as St Denys at Colmworth) are landmarks in this fairly level, open plateaux landscape. Large scale buildings at Thurleigh Airfield plus large modern farm buildings are also highly visible on the horizon of the level landscape. Villages shelter amongst mature trees while poplar

shelter belts and occasional conifers are associated with farmsteads.”

Landscape Sensitivity

2.5.7 The following points summarise the key considerations of this LCA in relation to the sensitivities of the landscape:

“The network of hedgerows and hedgerow trees which still survive in parts of the area is vulnerable to further loss through lack of consistent maintenance and renewal of trees.

The field trees (remnants of former field boundaries) which may be lost due to over maturity and lack of appropriate on-going management.

The pattern of dispersed farmsteads and villages with their distinctive structure of ‘ends’ and associated small irregular fields, which is vulnerable to infill within villages and ribbon development along roads.

Tall stone built churches forming landmarks and creating a sense of place.

Earthworks of moated sites and shrunken settlements whose legibility is vulnerable to lack of management.

Bushmead Priory and environs, comprising a significant survival of historic features of various eras.

High level of recreational access via rights of way network and network of quiet rural lanes.

Areas of ecological value in particular ancient woodlands which require sustained management to maintain this diversity.

The tranquil, rural nature of the landscape which is vulnerable to urban influence, particularly around Thurleigh Airfield.

Presence of ponds and brooks throughout the area.

In addition, the visual sensitivities of the landscape of this LCA include its “sense of openness, and of wide views.”

Landscape Strategy

- 2.5.8 The Bedford Borough Landscape Character Assessment states that the overall strategy for this LCA is to “*enhance the elements of the landscape which are in declining condition or detract from the rural character, in particular the hedgerows and hedgerow and field trees. At the same time conserving and enhancing the open rural landscape with its scattered small scale settlements and farmsteads, and historic earthworks and ancient woodlands of high biodiversity value.*”

Susceptibility

- 2.5.9 This LCA is open and large-scale, with arable farmland dominating. Thurleigh Airfield, located in its western extent, dominates the higher plateau with industrial fencing and lack of field boundaries emphasising the exposed, open character of this section of the area. Other focal points include lines of pylons, which are evident at the section close to the eastern extent of the Site, and occasional woodland blocks, albeit they are relatively few. On balance, LCA 1D is considered to have a **Low** susceptibility to change.

Value

- 2.5.10 This area of LCA 1D doesn't associate with any landscape designations and mostly comprises medium to large-scale arable farmland. Overall, this part of the LCA is of **Low** landscape value.

Combined judgement of sensitivity

2.5.11 Considering both the susceptibility and value of LCA 1D, the overall sensitivity of has been assessed as **Low**.

Description of the Development

2.5.12 The Scheme does not fall within LCA 1D, however it is adjacent to the boundary of Site B and 0.7km of Site D which would comprise the parts of the Scheme identified in the ZTV as potentially being visible from the LCA.

2.5.13 For a full description of the Scheme, refer to Chapter 2.

Construction effects

2.5.14 While there would be no construction located directly within the Northern Wolds LCA, the following would be the key construction operations located within Sites B, C and D, which would potentially be evident from small areas at the northern extent of the LCA, one to the west of Little Staughton and another west of Duloe:

- The construction of the solar array (Sites B, C and D) within largely arable fields.
- The construction operations would introduce movement and noise predominantly within the adjacent landscape, primarily through: piling works; vehicle deliveries; and the operation of plant equipment.
- Excavations associated with the underground cable connections at the eastern extent of the Site.

2.5.15 The following are the key indicators of landscape change to LCA 1D during construction:

- The construction operations would be located at a lower level, below LCA 1D, with long-range views across to higher ground, further north than the Site, retained.
- The overall duration of the construction activity would be 30 months.

- The majority of the construction would be located within arable fields.
- Evidence of construction would be partially limited by the retained tree and hedgerow cover around the site.
- Given the nature of solar array construction, it will likely be reasonably located in discrete sections, gradually moving throughout the Site, as opposed to the entire Site comprising a construction site for the entire 30 month period.
- While the construction operations would introduce some movement to the adjacent LCA, primarily through vehicle deliveries and the operation of plant equipment, again this would be relatively limited given the large-scale of the wider landscape and considering that the baseline includes the occasional movement of agricultural vehicles.

2.5.16 Overall, it is considered that the construction of the Proposed Scheme would result in a **Negligible** scale of landscape effect on LCA 1D which comprises a **Negligible** level of effect and which is **Not Significant**.

Operation effects

2.5.17 As stated within the construction assessment, there would be no direct physical change to LCA 1D as it is located directly to the south of the Scheme boundary (Sites B, C and D) and the cable route corridor which falls within this LCA, would have been restored to the baseline condition at the completion of construction operations. While Sites A, B, C and D are not located within LCA 1D, there is a relatively small area of ZTV coverage at the very northern extent of the LCA which indicates that the operational Scheme would have some visual influence on it and so an assessment of potential indirect effects is set out here. The ZTV has identified that the solar arrays within Sites B, C and D would be glimpsed from here, set in a lower position within beneath this LCA.

2.5.18 The Scheme would largely comprise the introduction of a solar array into large-arable fields, located just outside this LCA. The array would be relatively low-level, at a maximum of 3m above existing ground-level, and would have

a generally uniform appearance, particularly given the orientation of the panels to face south towards LCA 1D.

- 2.5.19 At Year 0, views of the Scheme would be filtered by intervening vegetation located on field boundaries within the northern extent of the adjacent LCAs. The low position of the Scheme in relation to this slightly more elevated LCA would retain views from across the landscape towards higher ground further south. There would be glimpsed views of the Scheme, however these would be from a limited extent of the LCA and there would be no fundamental change to the characteristics of LCA 1D.
- 2.5.20 At Year 0 of operation it is considered that the Scheme would give rise to a **Negligible** scale of effect, which is **Not Significant**.
- 2.5.21 At Year 10, mitigation planting located on the southern boundaries of Sites B, C and D in particular would have established to an extent that it would assimilate the Scheme further within the landscape in the vicinity of the northern extent of LCA 1D. There would remain the chance for glimpsed views of the Scheme, particularly Sites B, C and D and therefore there would be remain a **Negligible** level of effect on LCA 1D, which is **Not Significant**.

2.6 Bedford LCA 4A: Great Ouse Clay Valley

Baseline Context

2.6.1 This LCA is described within the Bedford Borough Landscape Character Assessment as “...a level broad valley, low lying at 15m AOD rising to 30m AOD, and following the course of the River Great Ouse as it flows out of Bedford to leave the county to the north east above Little Barford. The open, gently rising slopes of the Great Ouse Clay Valley have strong visual links with the surrounding higher ground of Clay Farmland and Clay Vales character areas particularly the large scale arable fields for instance to the north west of Wyboston... The course of the river is also marked by narrow woodland belts and willow trees. In some sections the river retains a highly rural character but in other areas the leisure use of the land (for instance for the golf course at Wyboston) gives a more manicured, urbanised appearance. There are smaller pastoral fields along the valley floor with historic parklands sited on the valley side slopes at Little Barford with scattered parkland trees and small woods. Hedgerows are often gappy or lost but hedgerow trees are present in some sections along with poplar shelter belts. Nurseries are common particularly around Wyboston with many of them now disused... This mixture of land uses plus the presence of the major roads outside the character area/ borough (the A1 and A421) and the eastern edge of Bedford creates a fragmented urban fringe landscape”.

2.6.2 A summary of the key characteristics of this LCA are outlined below:

“A shallow fairly wide valley of the River Great Ouse founded on Oxford Clay and Alluvium with deposits of Valley Gravel and small sections of Glacial Gravel. Large scale open water bodies, multiple channels and tributary streams are scattered across the floodplain. The course of the river is marked by riverside vegetation including mature willows. Shelterbelts and distinctive clusters of woodland create a semi-enclosed landscape.”

Mixed land use of arable on the shallow slopes of the valley with pasture, quarrying and recreational uses along the valley floor.

Large and medium scale geometric fields are bounded by hedgerows in mixed condition with some hedgerow trees.

Restored sand and gravel workings are a recreational and ecological resource including Wyboston Leisure Park and Bedford River Valley Park, while active large scale quarrying continues for instance north of Willington.

The importance of the area in prehistoric times as a focus for ritual sites and funerary monuments is reflected in the presence of a number of ancient monuments.

Historic parks at Roxton and Little Barford (and Tempsford within Central Bedfordshire) contain parkland trees as well as medieval earthworks and ridge and furrow. Moated sites and remains of castles are present particularly at strategic points commanding the rivers.

Settlement consists of medium size villages and large industrial complexes including the generating station at Little Barford, and mixed development around Wyboston Lakes, and clusters of nurseries e.g. around Wyboston.

An urban fringe character results from the aural and visual presence of major road corridors of the A1(M) and A421, large scale industrial development, restored sand and gravel workings and large arable fields particularly close to Bedford, although with pockets of intact or restored river valley landscape.

The Ouse Valley Way long distance route and National Cycle Route 51 cross the landscape (line of disused railway line through the Bedford River Valley Park).”

Visual and Perceptual Character

- 2.6.3 The Bedford Borough Landscape Character Assessment states that the “contrasting character is created by open, gently rising slopes with strong visual links with the surrounding higher ground of the Clay Farmland and Clay Vales character areas, and by areas of more mixed and semi-enclosed landscape with large areas of open water and associated wetland habitat, the legacy of mineral extraction, now used for leisure and recreation.”

Settlement Form

- 2.6.4 The following describes both the cultural influences and nature of the built character present within this LCA:

“The Ouse Valley east of Bedford was especially significant in prehistoric times as a focus for ritual sites and funerary monuments. Many of these, though buried beneath ploughsoil, are scheduled monuments as the Sites and Monuments Record (SMR).

Above the flood plain, the landscape of the valley floor was dominated by the common fields of the adjacent villages. Most of these areas were enclosed in the early 19th century, but have been much altered since through agricultural reorganisation and urban and transport development. In particular, the influence of the Land Settlement Association in the 20th century is visible north of Wyboston. Little of the 19th century enclosure field pattern remains in this part of the Ouse valley.

In the last 150 years gravel extraction has become a major influence in the landscape, removing much of the historic meadowland.

The settlements are mostly nucleated and sit on the edge of the valley between the common fields and the more enclosed areas on the higher ground adjacent. Few historic landscape features survive in the areas round the villages, except where protected by localised

parkland: parks at Roxton, Tempsford and Little Barford all contain medieval earthworks and ridge and furrow, as well as parkland trees.

There are Scheduled Monuments including medieval moated sites at Wyboston, Chawston, Tempsford (Gannock's Castle) and Willington (the 'Danish Docks').

Settlement in the Great Ouse Clay Valley is long established with a string of medium scale villages on the slightly higher ground of the valley slopes but often with the older part of the village close to the river typically with a stone church and bridge (such as the medieval bridge at Great Barford) and perhaps a mill forming landmarks in the level landscape.

The villages have often spread along roads but remain distinct individual settlements. Wyboston comprises dwellings and greenhouses set in large plots created by the Land Settlement Association during the Depression of the early 20th century. Most of the plots are no longer used for their original purposes as nurseries or small holdings. In addition to the villages there are scattered farmsteads plus a few large scale industrial installations such as the power station north of Little Barford. The edges of Bedford include large scale buildings, but urban edges are largely screened by woodland or major roads."

Landscape Sensitivity

2.6.5 The following points summarise the key considerations of this LCA in relation to the sensitivities of the landscape:

"The minor roads and bridges over the River Great Ouse which reinforce the rural character of the area.

Open water bodies and associated wetland habitats providing a recreational resource and biodiversity interest, and which would be sensitive to changes in management.

Distinctive features such as hedgerows, hedgerow trees and water meadows, which are also sensitive to changes in management.

With few historic features surviving in the predominantly arable landscape, the pockets of parkland and surviving areas of meadow are particularly significant.

River Great Ouse and fringing vegetation including pollarded willows which contribute to sense of place and nature conservation.

Individual villages with historic cores and strong links to the riverine landscape setting through bridges, mills and riverside pastures and common land.

In addition, the following points summarise the key considerations of this LCA in relation to the visual sensitivities of the landscape:

Tranquil views across open water bodies and along the river corridors enclosed by woodlands.

Openness and long views across the gently rising slopes linking with the adjacent Clay Farmland and Clay Vales landscape types. The level topography means that tall structures and large scale buildings are highly visible.”

Landscape Strategy

- 2.6.6 The Bedford Borough Landscape Character Assessment states that the overall strategy for this LCA is to *“enhance the landscape through restoring elements that have become degraded or been lost such as the hedgerows, pollarded willows, pastures and water meadows and conserving features such as the historic villages with their strong links to the river landscape character and the tranquil, rural sections of riverside and open water bodies fringed by woodland. Support the work of the Forest of Marston Vale in guiding and delivering the River Valley Park proposals in ways which respond to the character of the landscape.”*

Susceptibility

2.6.7 This part of the LCA is impacted by major road corridors and gravel workings which reduces the scenic quality of the landscape. However, there are pockets of intact river valley landscape still present within the LCA and several Scheduled Monuments such as moated sites which contribute to the historic value of the landscape. This LCA has a mixture of land uses due to the nature of its urban fringe character. The open, gently rising slopes have strong visual links with adjacent character areas which increases its susceptibility. However, due to the detracting features of the road corridors and other largescale development, the overall susceptibility of the LCA is considered to be **Low to Medium**.

Value

2.6.8 This area of the LCA doesn't associate with any landscape designations and mostly comprises medium to large-scale arable farmland. Overall, this part of the LCA is of **Low** landscape value.

Combined judgement of sensitivity

2.6.9 Considering both the susceptibility and value of LCA 4A, the overall sensitivity of has been assessed as **Low**.

Construction effects

2.6.10 The construction of the main part of the Scheme would have no influence on LCA 4A, however there would be a very small duration of direct impact on the northern extent of this LCA as the cable route reaches the tie-in point at the existing Eaton Socon Substation. The construction of the cable route would give rise to a very small extent of temporary landscape change and therefore it is considered that the construction of the Proposed Scheme would result in a **Negligible** scale of landscape effect on LCA 4A which comprises a **Negligible** level of effect and which is **Not Significant**.

Operation effects

- 2.6.11 Following completion of construction, the part of the Scheme which falls within LCA 4A would be restored to its baseline condition and there would be no visual influence of the proposed solar array. Therefore, there would be **No Change** to LCA, which is **Not Significant**.

2.7 References

¹ Land Use Consultants (2020). Bedford Borough Landscape Character Assessment. Available at: <https://edrms.bedford.gov.uk/OpenDocument.aspx?id=H1s1ijkK2oPN8wKbNf7JDw%3d%3d&name=Bedford%20LCA%202020.pdf> [Last Accessed: 04 October 2023]

² Huntingdonshire District Council (2022). Huntingdonshire Landscape and Townscape Supplementary Planning Document. Available at: <https://www.huntingdonshire.gov.uk/media/6120/landscape-and-townscape-spd-2022.pdf> [Last Accessed: 04 October 2023]