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1.0 Introduction

1.1 Scope & Purpose

1.1.1 Collington Winter Ltd was commissioned by Mick George Ltd (MGL) to prepare a Landscape & Visual Impact Assessment (LVIA), to support an application to Northamptonshire County Council, for an extension to the existing waste handling facility at Great Billing.

1.1.2 The LVIA will assess the landscape which surrounds the application site and will establish a landscape and visual baseline context for the site.

Aims of the Landscape and Visual Impact Assessment

- Consider, in outline, the landscape character of the application site, within the wider landscape setting and the likely effects of the proposal upon landscape character;
- Assess the visual sensitivities of the application site, from key public receptors and identify any potential visual impacts upon landscape character and visual amenity;
- Assess the potential for the scale and nature of the proposal to be successfully accommodated within the landscape and
- Establish mitigation of landscape and visual sensitivities, to aid the overall scheme proposals, where necessary.

1.1.3 This LVIA was undertaken through desktop review of landscape character and relevant planning policy, combined with a site assessment of landscape and visual sensitivities. The field assessment was carried out by a Landscape Architect CMLI, on the 27th June 2019, in dry and bright weather conditions.

1.1.4 This LVIA is designed to be read in conjunction with other material considerations, as part of an application to Northamptonshire County Council.

1.2 Location

1.2.1 The application site is located approximately 5 mile from Northampton and approximately 7 miles from Wellingborough, in the country of Northamptonshire. See Figures 1.1, 1.2 and 1.3.

1.3 The Proposal

1.3.1 Mick George Ltd has been operating a waste handling facility at its current location in Great Billing, Northamptonshire since 2015. An eastern extension to the existing site (totalling 4.6 hectares) is now proposed in order that the site can process and recycle a greater proportion of waste arising within the region and also incorporate a contaminated soil washing facility.

1.3.2 The layout of the existing site will be revised to allow for greater efficiency of the recycling operations. The extension area will consist of a dedicated waste skip and HGV parking area in the extreme eastern sector. In addition, a smaller area (measuring 2,000sq.m) to the south of Lower Ecton Lane is proposed as a car parking area.
1: Introduction

Figures 1.1, 1.2 & 1.3: Great Billing Location.
Figure 1.4: The Application Site.
2.0 Landscape Baseline

2.1 What is landscape?
2.1.1 The landscape is a resource in its own right. The European Landscape Convention (ELC), designed to achieve improved approaches to the planning, management and protection of landscapes throughout Europe, defines landscape as:

> ‘an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors’. (Council of Europe, 2000)

2.1.2 This definition was expanded in 2002 to illustrate how all landscapes are special and valuable, even if they are not recognised with a statutory designation.

> “Landscape is about the relationship between people and place. It provides the setting for our day-to-day lives. The term does not mean just special or designated landscapes and it does not only apply to the countryside. Landscape can mean a small patch of urban wasteland as much as a mountain range, and an urban park as much as an expanse of lowland plain. It results from the way that different components of our environment – both natural (the influences of geology, soils, climate, flora and fauna) and cultural (the historic and current impact of land use, settlement, enclosure and other human interventions) – interact together and perceived by us. People’s perceptions turn land into the concept of landscape.” (Swanwick, C and Land Use Consultants (2002) Landscape Character Assessment Guidance. Countryside Agency & Scottish Natural Heritage).

2.2 Landscape Character
2.2.1 Landscape Character is assessed at different scales, from the national and regional, down to the county, district and site specific.

2.2.2 Regional Character - The Character Map of England, 1996
In 1996 the former Countryside Commission and English Nature, with support from English Heritage, produced The Character of England Map. This map combines English Nature’s Natural Areas and the former Countryside Commission’s Countryside Character Areas into a map of 159 Joint Character Areas (JCAs) for the whole of England.

2.2.3 The application site lies within the region classified in the ‘Character of England Map’, as defined by Natural England, as character areas: **89: Northamptonshire Vales**. The key characteristics typical of these landscape areas include:

- An open landscape of gently undulating clay ridges and valleys with occasional steep scarp slopes. There is an overall visual uniformity to the landscape and settlement pattern;
- Diverse levels of tranquillity, from busy urban areas to some deeply rural parts;
- Mixed agricultural regime of arable and pasture, with arable land tending to be on the broader, flat river terraces and smaller pastures on the slopes of many minor valleys and on more undulating ground;
- Relatively little woodland cover but with a timbered character derived largely from spinneys and copses on the ridges and more undulating land, and from waterside and hedgerow trees and hedgerows, though the density, height and pattern of hedgerows are varied throughout;
- A strong field pattern of predominantly 19th-century and – less frequently – Tudor enclosure;
- Distinctive river valleys of the Welland and the Nene, with flat flood plains and gravel terraces.
together with their tributaries (including the Ise). Riverside meadows and waterside trees and shrubs are common, along with flooded gravel pits, open areas of winter flooded grassland, and wetland mosaics supporting large numbers of wetland birds and wildfowl;

- Frequent large settlements that dominate the open character of the landscape, such as Northampton and Wellingborough, and associated infrastructure, including major roads, often visually dominant;
- Frequent small towns and large villages often characterised by red brick buildings and attractive stone buildings in older village centres and eastern towns and villages. Frequent imposing spired churches are also characteristic, together with fine examples of individual historic buildings;
- Relatively frequent, prominent historic parklands and country houses towards the outer edges and close to more wooded areas. Other characteristics include ridge and furrow and nationally important townships such as Sutton Bassett and Clipston; and
- Localised high concentrations of threshing barns and high status timber framed farm buildings from the 18th century or earlier.

2.2.4 County & District Character (See Figure 2.1 and 2.2: Landscape Character Types and Areas)

At a county level, the Current Landscape Character Assessment for Northamptonshire, prepared by LDA Design, sets out a detailed review of the landscape character of the county. The Current Landscape Character Assessment identified 20 Landscape Character Types (LCT) and within those broad types, Landscape Character Areas (LCA) emerged at a district level. The application site falls within the 20 - Urban LCT, however the landscape setting to the north and east is 18 - Broad River Floodplain LCT/18d The Nene - Billing Wharfe to Woodford Mill LCA. Rising ground to the north of the site, beyond the A45 is located within 4 - Rolling Ironstone Valley Slopes LCT/4c - Ecton and Earls Barton Slopes LCA. Rising ground to the south of the application site is included within 12 - Limestone Valley Slopes LCT/12a Wollaston to Irchester LCA.

2.2.5 Whilst the site is located within the urban LCT, the landscape setting is consistent with and characteristic of 18 - Broad River Floodplain LCT/18d The Nene - Billing Wharfe to Woodford Mill LCA, which will be assessed within this study. The key characteristics of LCT 18/LCA18d which are relevant to this assessment are:

- Broad, flat and predominantly wide floodplain surrounded by rising landform of adjacent landscape types;
- Deep, alluvial clay and silt with sand and gravel, masking the underlying geology;
2. Landscape Baseline

- River channel with slow flowing watercourse with limited bank side vegetation in areas;
- Predominance of unimproved pasture with pockets of both neutral and improved grassland and scattered arable land in fields of varying size; arable land becomes more frequent within the western section of the Nene Valley;
- Limited woodland cover confined to occasional broadleaved copses scattered throughout the floodplain;
- Hedgerow trees, although infrequent, are an important feature where they do occur, creating localised well treed areas;
- Hedgerows are generally overgrown and reinforced with post and wire fencing with intermittent sections showing evidence of decline;
- Settlement is very limited within the floodplain with a sequence of small nucleated villages on the lower valley slopes, along the western section of the River Nene;
- Wider settlement pattern of scattered farmsteads and individual dwellings;
- Urban influences arising from the proximity of large urban areas and associated road infrastructure on the perimeter of some sections of the floodplain;
- Minor roads generally cross the floodplain landscape at right angles to the river, with major roads also following the valley course and marking the boundary of the type;
- Evidence of long periods of gravel extraction and restoration within the Nene Valley, particularly along the middle section of the Valley, with patterns of restored landscapes with numerous areas of wetland and lakes; and
- Significant recreational activities within the Nene Valley landscape, mainly focused on the restored lakes.

2.2.6 Local Character - The Application Site and its Landscape Setting

The application site extends to approximately 4.6ha and is located to the east of the existing MGL waste handling facility. The site currently comprises a flat, rough grassed area surrounded by scrub vegetation with dense hedgerows to the north and lies on the River Nene floodplain, to the north east of an area of industrial and commercial buildings and a sewage facility.

2.2.7 The A45 runs east-west to the north of the site, beyond Lower Ecton Lane. The application site and the existing waste handling facility are largely concealed by perimeter hedgerows to the north, which define the site boundary. To the east and south east is an agrarian landscape, with a mosaic of rectilinear fields defined by low hedges and a network of drainage ditches.
Figure 2.2: Landscape Character.

Northamptonshire Current Landscape Assessment Landscape Character Types

- 4 - Rolling Ironstone Valley Slopes
- 12 - Limestone Valley Slopes
- 18 - Broad River Valley Floodplain
- 20 - Urban
2.2.8 The River Nene runs east-west to the south of the application site and occupies a wide floodplain characterised by water meadows, wetlands, marshes, woodlands and wet grasslands. The river has a series of channels running across the floodplain, one of which is navigable and links to the Billing Aquadrome, to the west of the study area. A series of man-made lakes and fishing ponds, surrounded by woodland stand to the north of the river and dominate the floodplain.

2.2.9 Settlement on the floodplain is sparse, with most built form found on the rising ground to the north and south. Views across and out of the floodplain, to the rising ground to the north and south, are largely restricted by vegetation cover.

2.3 Landscape Designations

2.3.1 The statutory designations relevant to the landscape surrounding the site are discussed below and those which are located within 3km of the site are illustrated at Figure 2.3: Landscape Designations and 2.4: Listed Buildings.

2.3.2 Scheduled Monuments

Under the Ancient Monuments and Archaeological Areas Act 1979 (1) the Secretary of State for Culture, Media and Sport is required to keep a Schedule of Monuments. The Schedule is administered by Historic England. A Scheduled Monument is a nationally important historic site or monument which is given legal protection by being placed on a list, or ‘schedule’. Scheduling is the only legal protection specifically for archaeological sites.

2.3.3 There are three scheduled monuments within the study area. These are:

- Bowl barrow 530m north east of Rose Farm;
- Clifford Hill motte castle; and
- Romano-British settlement and pottery kilns W of Ecton North Lodge

2.3.4 The site assessment verified that there is no intervisibility between the scheduled monuments, or the setting of the monuments and the application site, due to a rolling landform and intervening vegetation, which restricts intervisibility.

2.3.5 Conservation Areas

Local authorities have a statutory duty to identify, designate, preserve and enhance conservation areas within their administrative areas. The aim in a conservation area is to preserve or enhance not merely individual buildings but all those elements, which may include minor buildings, trees, open spaces, walls, paving materials etc., which together make up a familiar and cherished local scene. Once adopted, conservation area appraisals become a material planning consideration in any planning decisions.

2.3.6 There are three Conservation Areas with the study area:

- Great Billing Conservation Area, located within 1.5km to the north west of the application site;
- Ecton Conservation Area, located within 2km to the north east of the application site; and
- Cogenhoe Conservation Area, located within 2km to the south east of the application site.

2.3.7 The site assessment found that there is no intervisibility between the Great Billing and Cogenhoe Conservation Areas and the application site due to dense, intervening vegetation and settlement.
Figure 2.3: Landscape Designations.

Application Site
Existing Waste Handling Facility
Zone of Visibility
Scheduled Monument
Conservation Area
Site of Special Scientific Interest (SSSI)
Local Natural Reserve (LNR)
2.3.8 **Listed Buildings and Structures**

Listed buildings of all grades I, II* and II are defined as being of national importance. Listed buildings within 3km of the site are illustrated at Figure 2.4: Listed Buildings.

2.3.9 There are no Listed buildings which lie within 1km of the application site. Listed Buildings which lie within the wider study area and upon rising ground to the north and south were visited to check for intervisibility with the application site. The site assessment found that there is **no intervisibility** between those listed buildings located within the 3km study area or the landscape setting of the buildings and the application site, due to intervening vegetation and locally undulating topography.

2.3.10 **Site of Special Scientific Interest (SSSI)**

Sites of Special Scientific Interest (SSSI) are the country’s very best wildlife and geological sites and they include some of our most spectacular and beautiful habitats. The current legal framework for SSSIs is provided in England and Wales by the Wildlife and Countryside Act 1981, amended in 1985 and further substantially amended in 2000 (by the Countryside and Rights of Way Act 2000). SSSIs are also covered under the Water Resources Act 1991 and related legislation.

2.3.11 There is one SSSI designation within the study area, which is:

- Upper Nene Valley Gravel Pits SSSI - is a nationally important site for its breeding bird assemblage of lowland open waters and their margins and a rare example of wet floodplain woodland.

2.3.12 The site assessment verified that there is **no intervisibility** between the SSSI and the application site.
2.3.13 **Local Nature Reserve (LNR)**

Local authorities can create local nature reserves (LNRs). Town and parish councils can create LNRs if the district council has given them the power to do so. The local authority must control the LNR land - either through ownership, a lease or an agreement with the owner. As a manager of an LNR you need to care for and protect its natural features. You must also make your land accessible for any visitors.

2.3.13 There are one LNR located to the north west of the study area, which is:

- Lings Wood - located between areas of residential housing, this LNR includes woodland, scrub, ponds and acid grassland.

2.3.13 The site assessment verified that there is no intervisibility between the LNR and the application site.

2.3.12 **Public Rights of Way (PROW)**

Public rights of way are highways that allow the public a legal right of passage. The highway authorities keep definitive maps of public rights of way. They provide conclusive evidence of the existence of a public right of way.

2.3.13 Public rights of way within 3km of the site are shown in Figure 3.1: Public Rights of Way and Receptor Viewpoint Locations. Whilst the landscape baseline studies considered receptors within a 3km radius from the site, the initial site assessment scoped out views from beyond 2.5km of the site, due to the undulating topography and mature vegetation cover. To gain an understanding of the visual context for the area, for the purposes of this LVIA, an assessment has been conducted from likely receptors within 2.5km of the site. Therefore, footpaths within 2.5 km of the site, which have the potential for visibility of the site, were walked. The potential for intervisibility with the site was verified. Photoviewpoints no. 1 to 3 (page 21 to 23) illustrate the potential visibility of the application site from public rights of way. Where there was no view, a photograph was not taken.

2.4 **Assessment of Landscape Sensitivity, Condition and Value**

2.4.1 The sensitivity of the landscape to change is the degree to which a particular landscape can accommodate changes, or new features, without significant detrimental effects to its essential characteristics. Sensitivity is defined as being high, medium or low. (See Table A.1a).

2.4.2 The following table considers the sensitivity of landscape receptors, identified in the Landscape Baseline, to change resulting from the proposal to extend the existing extraction and landfill site at Great Billing. The condition and value of the landscape at various scales are also considered.
2: Landscape Baseline

**National Character Areas (NCA) - 89: Northamptonshire Vales**

<table>
<thead>
<tr>
<th>Landscape Receptor</th>
<th>Sensitivity of Receptor</th>
<th>Landscape Condition</th>
<th>Landscape Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium to High</td>
<td>Good</td>
<td>High</td>
</tr>
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</table>

NCA 89 is a recognisable landscape of low lying clay vales and river valleys, with large urban areas connected by a visually dominant road infrastructure. There is a rural, agrarian character to much of the landscapes and a long history of sand and gravel extraction has resulted in a number of man-made lakes and fishing ponds occupying the floodplain landscapes. The restoration of the sand and gravel extraction sites has created a rich biodiversity, with water meadows supporting a range of species. Settlement occurs on the higher ground and is predominantly surrounded by agrarian land-use. This is a mature landscape, where robust native hedgerows, with abundant hedgerow trees extend across the rural landscape, giving a sense of enclosure. There are no national or regional landscape designations upon the NCA landscape within the study area and the condition of the NCA landscape is considered to be good. The landscape is valued for its scenic quality and especially for use for leisure and tourism, especially along the river valleys. The landscape within which the study area lies is consistent with and characteristic of NCA:35.

**Magnitude of Change**

Due to the scale of the NCA landscape and the application site within that area, it is considered that the proposed extension of existing operations will have no change to the overall character of the NCA landscape.

**Significance of Effects**

The proposed extension of existing operations would not effect the scale, landform or pattern of the NCA landscape. The proposed extension of existing operations has the potential, over time, to accord with the NCA character, by improving the quality of the landscape at this location, through the planting of tree and hedgerow species of local provenance along the northern boundary of the application site.

**Residual Change**

(After 10-15 years)

The proposed extension of existing operations would not effect the scale, landform or pattern of the NCA landscape. The proposed extension of existing operations has the potential, over time, to accord with the NCA character, by improving the quality of the landscape at this location, through the planting of tree and hedgerow species of local provenance along the northern boundary of the application site.

**County / District Character - 20 - Urban**

The application site is located at the eastern edge of the Urban LCT, however no narrative on the urban landscape is provided. Therefore this LCT has been scoped out of this assessment of sensitivity and the application site will be assessed against the LCT which defines the northern and eastern boundary of the site.

**County / District Character - 18 - Broad River Floodplain / 18d The Nene - Billing Wharfe to Woodford Mill**

<table>
<thead>
<tr>
<th>Landscape Receptor</th>
<th>Sensitivity of Receptor</th>
<th>Landscape Condition</th>
<th>Landscape Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Moderate</td>
<td></td>
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</tbody>
</table>

The Broad River Valley LCT are associated with the River Welland and River Nene, with the Nene Valley extending across the central and eastern area of Northamptonshire and providing a characteristic water meadow landscape, which is highly valued for biodiversity, scenic quality and recreation. Beyond the river valley, on rising ground, an agricultural landscape provides the context for wide-scale, panoramic views across the pasture dominated floodplain. Woodland cover is generally sparse within this LCT, however the floodplain within which the application site lies is well wooded; this may be as a result of the restoration of sand and gravel extraction sites, however this wooded character filters views across and otherwise flat topography and conceals the numerous camping and caravan sites which are located within the LCT.

In respect of aesthetic and perceptual qualities, the Current Landscape Character Assessment for Northamptonshire states:
Contrasting agricultural uses of arable and pastoral land with riparian vegetation, interspersed with some significant areas of man made wetland landscape create a patchwork of colours within the landscape. Despite the variety of the land uses, however, the continuity of intrinsic elements such as hedgerows, field shape and river create a strong landscape pattern. The overgrown hedgerows, along with surrounding landform, combine to create an intimate character, although panoramic views are frequently available along the river channel. Whilst large areas are quiet and inaccessible, a busier and intrusive character prevails where urban centres are in close proximity. For many sections of the floodplain, it is a well-managed landscape showing evidence of occupation for many centuries. Nevertheless, there are more degraded sections where current gravel extraction is operational, and where inappropriate or incomplete restoration of gravel extraction also detracts from an otherwise riparian landscape.

In respect of local distinctiveness, landscape condition and landscape change:

“The condition of the landscape varies and is dependent on various factors. These range at a local level from the extent to which hedgerows are managed to the influence of development, including current gravel extraction within the Nene Valley, the extent and type of restoration of workings, development such as marinas, high voltage pylons crossing the landscape, to the nature of the surrounding urban development on the edge of the landscape type. Where urban development is extensive and insensitive to the landscape character, the condition of the landscape can be regarded as low. Elsewhere, however, where the river and floodplain remains largely unspoilt, a tranquil riparian landscape of higher scenic quality prevails.”

The landscape within which the application site lies is consistent with and characteristic of LCT18/LCA18d.

<table>
<thead>
<tr>
<th>Magnitude of Change</th>
<th>Significance of Effects</th>
<th>Residual Change (After 10-15 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Change</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

Due to the scale of the LCT18 / LCA 18d and the application site within that area, it is considered that the proposed extension of existing operations will have no change to the overall character of the landscape at this scale.

The proposed extension of existing operations would not effect the scale, landform or pattern of the landscape of LCT18 / LCA 18d, maintaining the existing character and quality of the landscape.

Conservation Areas - Ecton Conservation Area

<table>
<thead>
<tr>
<th>Landscape Receptor</th>
<th>Sensitivity of Receptor</th>
<th>Landscape Condition</th>
<th>Landscape Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
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</table>

The village of Ecton lies approximately 1.5km to the north east of the application site and is set within an agrarian landscape. The village has developed in a linear form along the High Street and comprises a selection of vernacular buildings with slat or thatched roofs. The conservation area was designated in 1975 and has a landscape setting of predominantly 18th century enclosed farmland. The Ecton Conservation Area Appraisal (2017) identifies key views which are of relevance to this study as:

- Paragraph 4.15 - The former cricket ground offers outward views to the south and west across the valley slopes and the fields beyond its boundaries.
• **Paragraph 4.24** - The views to the west from West Street across the open fields enhance the rural character of the village and its proximity yet isolation from the large neighbouring settlement of Northampton, clearly visible in the distance.

• **Paragraph 4.26** - The views to the south across the open fields of the Nene valley from the western side of the village, with the views to the south from the eastern side of the village, are predominantly across the open parkland immediately adjacent to the Hall, onto the open fields down the valley slopes beyond.

There is no mention of long distance views out of the conservation area, to the industrial and commercial context to the south west, set within the Nene Valley, however views to the west, of the urban edge are acknowledged. In respect of the conservation area’s landscape setting, the appraisal states:

• **Paragraph 7.10** - It is important that development surrounding the conservation area does not harm its setting. Any development around Ecton should take careful consideration of the views into and out of the conservation area, including the setting of the positive buildings and the overall character of the surrounding landscape.

<table>
<thead>
<tr>
<th>Magnitude of Change</th>
<th>Significance of Effects</th>
<th>Residual Change (After 10-15 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td>Due to the extent and nature of the intervening mature vegetation, a gently rolling landform and distance from the application site, it is considered that the proposed extension to operations will have a negligible effect upon the landscape character, views into and out of the conservation area or upon its landscape setting.</td>
<td>The proposed extension of existing operations would not effect the scale, landform or pattern of the Ecton Conservation Area’s landscape setting.</td>
<td>The key characteristics of the Ecton Conservation Area’s landscape setting would be neither weakened or strengthened by the proposed extension of operations.</td>
</tr>
</tbody>
</table>

During the site assessment, the Great Billing and Cogenhoe Conservation Areas were found to have no intervisiblility with the application site, due to mature intervening vegetation. They have therefore been scoped out of this assessment of sensitivity.

**Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR)**

There is one SSSI and one LNR designation within the study area, however, as there is no intervisibility between theses areas and the application site, these landscape receptors have been scoped out of this assessment of sensitivity.

**Designated Assets**

The scheduled monuments and listed buildings which are located within the study area are illustrated at Figure 2.3 and 2.4. The site assessment found there to be no intervisibility between the scheduled monuments and listed buildings and the application site, therefore, these landscape receptors have been scoped out of this assessment of sensitivity.
The character of the local landscape of the application site is rough grassland surrounding by hedgerows and scrub vegetation which predominantly defines the northern boundary with Lower Ecton Road. Occasional trees are found around the application site, which have the appearance of natural scrub development. The wider landscape is rough grassland, defined by low and gappy hedgerows and a network of drainage ditches. The application site is located within an area with a strong industrial and commercial context, on the edge of an urban area, the condition of the landscape is poor.

<table>
<thead>
<tr>
<th>Magnitude of Change</th>
<th>Significance of Effects</th>
<th>Residual Change (After 10-15 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>Minor</td>
<td>Minor to Moderate Beneficial</td>
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<tr>
<td>The proposed extension of existing operations will result in the alteration of the current rough grassland and will introduce built elements which will be prominent, however, when considered within the existing industrial context, these new features may not be considered to be substantially uncharacteristic, when set within the attributes of the receiving landscape.</td>
<td></td>
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<tr>
<td>The proposed extension of existing operations would change the scale and pattern of landscape character at the site specific scale, however this will be seen within the existing developed context.</td>
<td></td>
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</tr>
<tr>
<td>The proposed extension of existing operations has the potential, over time, to accord with and enhance the wider character, by improving the quality of the landscape at this location, through the planting of tree and hedgerows species of local provenance, along the northern boundary of the application site. A well maintained green boundary to the north would naturally filter views of the application site and would ensure green links are maintained.</td>
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</tr>
</tbody>
</table>
3.0 **Visual Baseline**

3.1 **Assessment Context**

3.1.1 This visual assessment aims to establish the potential for visibility of the application site at Great Billing, from the surrounding public visual receptors and to consider, in outline, any potential for landscape and visual effects arising from the extension of operations on site. Whilst the landscape baseline studies considered receptors within a 3km radius from the site, the initial site assessment scoped out views from beyond 3km of the site, due to the undulating topography and mature vegetation cover. To gain an understanding of the visual context for the area, for the purposes of this LVIA, an assessment has been conducted from likely receptors within 2.5km of the site.

3.1.2 **Sensitivity of Visual Receptors** (Table A.1b, Appendix A)

The sensitivity of the landscape to change is the degree to which a particular landscape can accommodate changes, or new features, without significant detrimental effects to its essential characteristics. The sensitivity of visual receptors will depend on three key factors:

- The receptor’s activity whilst exposed to the view (work, recreational activities, resident);
- Degree of exposure to view; and,
- Period of exposure to view.

3.1.3 The sensitivity of landscape character or a visual receptor is defined as being high/medium/low, where high is the most sensitive.

3.2 **Visual Assessment**

3.2.1 “An assessment of visual effects deals with the effects of change on views available to people and their visual amenity. The concern here is with assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.” (‘Guidelines for Landscape and Visual Impact Assessment’, Landscape Institute (LI) & Institute of Environmental Management and Awareness (IEMA), Third Edition, 2013) (GLVIA3).

3.2.2 A visual assessment has been carried out according to the methodology set out in Appendix A. All photoviewpoints are restricted to publicly accessible locations, such as footpaths. Views from privately owned properties, where there is a likelihood of a view, have been considered within the scope of this report, however views from residential properties are largely restricted by intervening vegetation.

3.2.3 It should be noted that the site assessment was carried out in June 2019, when the broadleaved trees were in full leaf. In accordance with guidance, it is good practice to undertake visual assessments during the winter months, when the trees are predominantly bare. This is because leaves and vegetation filter views, and winter views therefore present a ‘worst case scenario’ for visual effects. Notwithstanding this, this assessment remains sound for planning decisions.

3.2.4 Photograph/s have been taken using a DSLA with a 50mm focal length standard lens. Viewpoint locations are set out in Figure 3.1. These viewpoints are representative of views afforded towards the application site. This study acknowledges that there may be other views afforded of the site, within proximity to these receptors, however for the purpose of this LVIA, the following views are considered to best represent the visual context of the proposed extension at the application site.
Figure 3.1: Public Rights of Way and Receptor Viewpoint Locations
## Viewpoint No.1
Looking south west from Footpath TE5 at the edge of Ecton.

<table>
<thead>
<tr>
<th>Description of View</th>
<th>Sensitivity of Visual Receptor</th>
<th>Significance of Effects</th>
<th>Photoviewpoint Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is a partial view of the application site from this location at the south western edge of the village of Ecton, set within a wide-scale, panoramic rural view. This view is also representative of the Ecton Conservation Area receptor. The landscape to the south and south west of Ecton is agrarian in character, with south facing pasture and arable fields defined by a network of mature hedgerows with abundant hedgerow trees. Where gaps and gateways in the hedgerows occur, views into the Nene Valley are filtered by intervening vegetation. There are views of the existing industrial and commercial buildings and the waste handling facility is partially visible, however the green colour of the building helps to assimilate the built form within the intervening vegetation, whereas the light coloured industrial buildings are more prominent.</td>
<td>Medium to High</td>
<td>Minor Neutral</td>
<td>Photo - Stitched panorama of multiple photographs</td>
</tr>
<tr>
<td>Magnitude of Change</td>
<td>Residual Change (after 10 to 15 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Minor Beneficial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The proposed development of the application site as an extension to the existing waste handling facility would constitute a minor addition to the existing view, which may not be immediately apparent to users of Footpath TE5 and would not have a marked effect on the overall, wider-scale rural quality of this view.</td>
<td>The residual change in the landscape over time, with the addition of hedgerow planting on the northern boundary of the application site, would result in a beneficial change, from this viewpoint.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Viewpoint No.2
Looking south from Footpath TE3.

**Description of View**
There is a partial view of the application site from this location on Footpath TE3 to the west of the village of Ecton, set within a wide-scale, panoramic rural view.

The view of the existing waste handling facility and surrounding industrial and commercial context is set within a wide-scale, panoramic rural landscape and appears as a minor component in the overall view.

The landscape to the south and south west of Ecton is agrarian in character, with south facing pasture and arable fields defined by a network of mature hedgerows with abundant hedgerow trees, which naturally filter views. Where gaps and gateways in the hedgerows occur, views into the Nene Valley are filtered by intervening vegetation.

**Sensitivity of Visual Receptor**
Medium
Receptor is a user of a public right of way with partial view of the application site, where there are intervening features, such as trees and hedgerows.

**Significance of Effects**
Minor Neutral
The extension of the existing waste handling facility would give rise to a barely perceptible change to this wide-scale view and the key characteristics of the view would be neither weakened or strengthened by the proposal.

**Magnitude of Change**
Low
The proposed extension to the waste handling facility would be seen as a minor component in the wide-scale view and may not be immediately apparent to the user of this footpath. Awareness of the extension to the existing facility is not likely to have a marked effect upon the character of quality of this panoramic view.

**Residual Change (after 10 to 15 years)**
Minor Beneficial
The residual change in the landscape over time, with the addition of hedgerow planting on the northern boundary of the application site, would result in a beneficial change, from this viewpoint.

**Grid Reference SP 82190 63294**

**Image - Stitched panorama of multiple photographs**
**Viewpoint No.3**  
**Looking north west from Byway TE10**

<table>
<thead>
<tr>
<th>Description of View</th>
<th>Sensitivity of Visual Receptor</th>
<th>Significance of Effects</th>
<th>Photoviewpoint Location</th>
</tr>
</thead>
</table>
| There is an open view of the application site from this location, at a gateway, on Byway TE10. Vegetation along the length of the footpath is generally overgrown and restricts intervisibility with the landscape to the west, however where gaps occur, there is a view of the existing waste handling facility and the proposed extension application site. There are glimpsed views of the users of A45, with fast moving vehicles illustrating the line of the road. Vegetation planted on the embankment between the A45 and Lower Ecton Lane and on the boundary between Lower Ecton Lane and the existing waste handling facility, set the site within a wooded context. The foreground view comprises rough pasture, which provides an open context for the view. There are views of the existing industrial and commercial context and the waste handling facility is partially visible, however the green colour of the building helps to assimilate the built form within the intervening vegetation, whereas the light coloured industrial buildings are more prominent. | High  
Receptor is a users of a public right of way with a predominantly open and direct view of the application site. | Moderate to Major Neutral  
The extension to the existing waste handling facility would cause a noticeable change to this view, however, it would be seen within the wider context of the existing site. |  

<table>
<thead>
<tr>
<th>Magnitude of Change</th>
<th>Residual Change (after 10 to 15 years)</th>
</tr>
</thead>
</table>
| Medium              | Minor Neutral  
The residual change in the landscape over time, following the establishment of the extension to the waste handling site would be minor neutral, with a change to the existing view. This could be mitigated with additional boundary hedgerow planting. |
4.0 Conclusions
4.0.1 This landscape and visual impact assessment has been prepared to support an application to Northamptonshire County Council, for an extension to the existing waste handling facility at Great Billing. This report concludes the following in respect of landscape character, sensitivity and visual matters.

4.1 Conclusions of the Landscape Baseline
4.1.1 This report has found that the landscape surrounding the application site at Great Billing is consistent with and characteristic of national, county and district landscape character.

4.1.2 At a national scale, the landscape is consistent with NCA 89: Northamptonshire Vales, with a character of low lying clay vales and river valleys, with large urban areas connected by a visually dominant road infrastructure. There is a rural, agrarian character to much of the landscapes and a long history of sand and gravel extraction has resulted in a number of man-made lakes and fishing pond occupying the floodplain landscapes. Native hedgerows, with abundant hedgerow trees extend across the rural landscape, defining the mosaic of fields and giving a sense of enclosure. There are no national or regional landscape designations upon the NCA landscape within the study area. The landscape is valued for its scenic quality and especially for use for leisure and tourism, especially along the river valleys.

4.1.3 At the county and district scale, the landscape within which the application site lies is classified as being with an urban area, however this study has assessed the neighbouring 18: Broad River Valley Floodplain landscape character type, and specifically the 18d The Nene - Billing Wharfe to Woodford Mill landscape character area.

This is a landscape associated with the River Welland and River Nene, with the Nene Valley extending across the central and eastern area of Northamptonshire and providing a characteristic water meadow landscape, which is highly valued for biodiversity, scenic quality and recreation.

4.1.4 Due to the scale of the national, county and district landscape character, it is considered that the extension of waste handling operations at the application site will have no change to the overall character of the wider landscape and a neutral significance of effects.

4.1.5 At a site specific scale, the application site comprises an area of flat, rough grassland extending to approximately 4.6 hectares, set within gappy hedgerows with scrub vegetation. The wider floodplain landscape beyond the application site comprises pasture and arable land, with a series of man-made lakes and fishing ponds set within a restored sand and gravel extraction site to the south. A dense area of woodland surrounds these lakes and ponds, filtering views across the flat, floodplain landscape. The current condition of the landscape is poor, with little intrinsic value other than rough grassland and gappy hedgerows, however the landscape to the south, adjacent to the River Nene is a valued landscape with an abundance of habitats.

4.1.6 It is concluded that the proposed extension to the waste handling facility at Great Billing would not have a detrimental effect upon landscape character of the application site, as it is currently located within an area of existing industrial and commercial development.

4.1.7 There would be an alteration of the application site, with a loss of rough grassland and the introduction of built elements, which may be prominent, however, when considered within the existing industrial
context, these new features may not be considered to be substantially uncharacteristic, when set within the attributes of the receiving landscape. With well considered boundary planting to the north of the application site, using native species, there could be a beneficial improvement in character.

4.1.8 The conclusions of the landscape baseline found that the proposal to extend existing operations would result in the loss of rough grassland within the application site, giving rise to a medium magnitude of change, at a site specific scale. The proposed extension of existing operations would change the scale and pattern of landscape character at the site specific scale, however this will be seen within the existing developed context.

4.1.9 The proposed extension of existing operations has the potential, over time, to accord with and enhance the wider character, by improving the quality of the landscape at this location, through the planting of tree and hedgerows species of local provenance, along the northerm boundary of the application site. A well maintained green boundary would naturally filter views of the application site from the north and would ensure green links are maintained resulting in a Minor to Moderate beneficial residual change in landscape character over 10 to 15 years.

4.2 Conclusions of the Visual Assessment

4.2.1 Viewpoints 1 to 3 (pages 21 to 23) illustrate the potential visibility of the extension of waste handling operations on the application site. The viewpoints selected are representative of the potential views towards the application site and represent the users of public footpaths and roads.

4.2.2 The site assessment found that views towards the application site are within 1km of the application site. Views from the wider landscape are restricted due to the undulating landform on the valley sides and intervening vegetation, both in the near and far distance.

4.2.3 The visual assessment of the viewpoints found that significance of effects, with mitigation hedgerow planting, is minor neutral, in views from the north of the application site. Views from the byway located to the east of the application site (Viewpoint No.3) are likely to result in a moderate to major neutral change, as the proposal would cause a noticeable change to this view, however, it would be seen within the wider context of the existing site.

4.2.4 The residual effects, after 10 to 15 years, would result in a largely minor to moderate beneficial change to the visual amenity for each viewpoint, with the addition of a boundary hedgerow to the north of the application site, with hedgerow trees, which will naturally filter views and reduce visual effects.

4.2.5 There are residential properties located on the northern edge of the village of Cogenhoe, which have a northerly aspect across the Nene Valley. The site assessment found that direct views of the application site are largely restricted by intervening vegetation within the valley landscape, however any views afforded from residential properties are likely to be seen within the context of the existing waste handling facility, industrial and commercial units and the urban settlement edge.

4.3 Cumulative Effects

4.3.1 Cumulative Effects are defined within the Guidelines for Landscape and Visual Impact Assessment’, Landscape Institute (LI) & Institute of Environmental Management and Awareness (IEMA), Third Edition, 2013 as:
Cumulative landscape and visual effects result from additional changes to the landscape or visual amenity caused by the proposed development in conjunction with other developments (associated with or separate to it) or actions that occurred in the past, present or are likely to occur in the foreseeable future. They may also affect the way in which the landscape is experienced. Cumulative effects may be positive or negative. Where they comprise a range of benefits, they may be considered to form part of the mitigation measures.

4.3.2 This LVIA has identified other proposed development sites which have been considered in addition to the application site, for cumulative landscape and visual effects, both of which have planning consent:

- Great Billing Sand and Gravel Extraction and Restoration; and
- Earls Barton Spinney Quarry.

4.3.3 Both sites are located within close proximity to the application site and will result in an incremental, adverse change in the character of the landscape, over time, as the phased extraction and restoration of the landscape occurs. However, a phased restoration will result in a beneficial effect upon the landscape surrounding the application site, with an enhanced network of new hedgerows and trees, set amongst new water bodies, which will further restrict intervisibility with the application site.

4.3.4 Cumulative visual effects will be restricted to views from the footpath network and will largely be restricted by intervening vegetation and the flat topography of the river valley.

4.4 Conclusions

4.4.1 Following a review of baseline information, together with consideration of likely landscape and visual effects, it is considered that the proposal to extend the existing waste handling facility at Great Billing will not have any significant effects on landscape character and visual amenity. The application site is well contained within its wider landscape setting, which has a strong and recognisable rural and well wooded character, albeit it located on the edge of an extensive urban settlement. It is considered that this landscape has capacity to accommodate the proposed extension at the application site.
Appendices

Appendix A  Landscape & Visual Impact Assessment Methodology
- Introduction
- Assessment Methodology

Appendix B  Extract from The Broadland District Council Supplementary Planning Document: Landscape Character Assessment
- A2: River Bure
- E2: Marsham and Hainford
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A.0  **Assessment Methodology**

A.1  **Introduction**
A.1.1 This assessment has been conducted in accordance with the principles set out in:


A.2  **Assessment Methodology**
A.2.1 To determine whether or not the landscape will be able to successfully accommodate the development this LVIA will:

- Establish the nature of the potential change anticipated;
- Establish the landscape baseline, in terms of its character, condition, designations and current land use;
- Establish a visual baseline, considering likely public receptors; and
- Assess the impacts and significance effects of the potential change against the sensitivity of the landscape.

A.2.2 **Landscape Sensitivity** - The sensitivity of a landscape to a particular type of change, is defined in terms of the interactions between the landscape in its own right, the perceptions of that landscape, in the eyes of people who see it on a regular basis and the nature of the proposal.

A.2.3 Landscape sensitivity is defined as relating:

> “to the **stability of character**; the degree to which that character is **robust** enough to continue and to be able to **recuperate** from loss or damage. A landscape with a character of high sensitivity is one that, once lost, would be **difficult to restore**; a character that, if **valued**, must be afforded particular **care and consideration** in order for it to survive”. Bray C (2003) Unpublished paper on a County Wide Assessment of Landscape Sensitivity. Worcestershire County Council.

A.2.4 Landscape sensitivity can be seen as a combination of the sensitivity of the landscape as a resource in its own right, which encompasses natural and cultural elements, the value that is attributed to that particular landscape, in terms of designations and the visual sensitivity, such as views and visibility from public receptors. It is important to understand that judgements about the potential for landscapes to accept and accommodate change can alter over time, not only in terms of peoples perception to a particular landscape, but also in terms of peoples attitudes towards a the type and extent of that change.

- The receptor’s activity whilst exposed to the view (work, recreational activities, resident);
- Degree of exposure to view; and,
- Period of exposure to view.

A.2.5 **Landscape Character** - Landscape character It is defined as:
<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Landscape Character</th>
</tr>
</thead>
</table>
| High       | • Strong landscape structure.  
|            | • Strong positive character.  
|            | • Good condition.  
|            | • Strong sense of place.  
|            | • Visually distinctive.  
|            | • Aesthetically pleasing/occasional detracting features.  
|            | • Distinct features of worthy conservation.  |
| Medium     | • Recognisable landscape structure.  
|            | • Positive character.  
|            | • Moderate condition.  
|            | • Reasonable sense of place.  
|            | • Visually notable.  
|            | • Aesthetically satisfactory or uninspiring/ some detracting features.  
|            | • Some features of worthy conservation.  |
| Low        | • Weak or degraded landscape structure.  
|            | • Weak or negative character.  
|            | • Poor condition.  
|            | • Poor sense of place.  
|            | • Visually notable.  
|            | • Aesthetically unsatisfactory or unpleasant.  
|            | • Few or no features of worthy conservation.  
|            | • Scope for positive enhancement.  |

Table A.1a: The General Criteria for Establishing the Sensitivity of Landscape Character.

<table>
<thead>
<tr>
<th>Sensitivity</th>
<th>Visual Receptors</th>
</tr>
</thead>
</table>
| High       | • Residential properties with predominantly open views from windows, garden or curtilage. Views will normally be from principal living rooms and from windows of rooms in use during the day.  
|            | • Users of Public Rights of Way with predominantly open views and of recreational use.  
|            | • Non-motorised users of minor or unclassified roads in the countryside.  
|            | • Visitors to recognised viewpoints or beauty spots.  
|            | • Users of outdoor recreational facilities with predominantly open views where the purpose of that recreation is enjoyment of the countryside - e.g. Country Parks, National Trust sites etc.  |
| Medium     | • Residential properties with views from windows, garden or curtilage. Views from ground floor windows will be oblique or partially obscured by garden and/or other intervening vegetation.  
|            | • Users of Public Rights of Way with restricted views, in less sensitive areas or where there are significant existing intrusive features.  
|            | • Schools and other institutional buildings, and their outdoor areas.  
|            | • Motorised users of minor or unclassified roads in the countryside. Where alteration is focussed upon often narrow and winding routes.  |
| Low        | • People in their place of work.  
|            | • Users of main roads or passengers on public transport on main routes.  
|            | • Users of outdoor recreational facilities with restricted views and where the activity is focussed within the area.  
|            | • Occupants of industrial premises.  |

Table A.1b: The General Criteria for Establishing the Sensitivity of Visual Receptors.
“a distinct, recognisable and consistent pattern of elements, be it natural (soil, landform) and/or human (for example settlement and development) in the landscape that makes one landscape different from another, rather than better or worse”.

A.2.6 Landscapes are not static, they are in a constant state of change, altering in line with management, land use and climate change. Climate change is one of the largest factors that is likely to bring about changes in landscape character.

A.2.7 Landscape character should not be seen as the physical elements of the landscape in isolation, but the combination of those elements with perceptual, aesthetic and experiential aspects of the landscape, which makes one place different to another.

A.2.8 Landscape Character is assessed at different scales, from the national and regional, down to the county, district and site specific.

A.2.9 Assessment of the landscape can help in:

- Understanding how and why landscapes are important;
- Promoting an appreciation of landscape issues;
- Successfully accommodating new development within the landscape; and
- Guiding and directing landscape change.

A.2.10 The value (or quality) of the landscape, as a resource in its own right, can be assessed at a variety of scales and is defined as being of exceptional, high, moderate, poor or very poor value. See table A.2.

A.2.11 In respect of Landscape Condition (the physical state of the landscape), assessment is made according to the criteria set out in table A.3.

<table>
<thead>
<tr>
<th>Value</th>
<th>Criteria</th>
<th>Typical Scale</th>
<th>Typical Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptional</td>
<td>Very high importance (or Quality) and Rarity. No or extremely limited potential for substitution.</td>
<td>International, National, Regional, Local</td>
<td>World Heritage Site, National Park or AONB.</td>
</tr>
<tr>
<td>High</td>
<td>High Importance (or Quality) and Rarity. Limited potential for substitution.</td>
<td>National, Regional, Local</td>
<td>National Park, AONB, AGLV, ALLI</td>
</tr>
<tr>
<td>Moderate</td>
<td>Medium Importance (or Quality) and Rarity. Limited potential for substitution.</td>
<td>Regional, Local</td>
<td>Undesignated site but its value perhaps expressed through non-official publications or demonstrable use.</td>
</tr>
<tr>
<td>Poor</td>
<td>Low Importance (or Quality) and Rarity.</td>
<td>Local</td>
<td>Areas identified as having some redeeming feature or features and possibly identified for improvement.</td>
</tr>
<tr>
<td>Very Poor</td>
<td>Low Importance (or Quality) and Rarity.</td>
<td>Local</td>
<td>Areas identified for recovery.</td>
</tr>
</tbody>
</table>

Table A.2: The General Criteria for Establishing Landscape Value
<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
<th>Typical Example</th>
</tr>
</thead>
</table>
| Exceptional  | • Strong landscape structure, characteristic landscape character with a balanced combination of landform & land cover;  
• Appropriate management of land use and land cover;  
• Distinct features worthy of conservation;  
• Strong sense of place;  
• No detracting features | Internationally or nationally recognised landscape, all, or the majority of which is, e.g. a World Heritage Site, National Park or AONB. |
| High         | • Strong landscape structure, with characteristic landscape character and a balanced combination of landform & land cover;  
• Appropriate management of land use and land cover, with potential scope to improve;  
• Distinct features worthy of conservation;  
• Sense of place;  
• Occasional detracting features | Nationally or Regionally recognised landscape, e.g. parts of a National Park or AONB or the majority of AGLV. |
| Good         | • Recognisable landscape structure, characteristic patterns and combinations of landform and land cover are still evident;  
• Scope to improve management for land use and land cover;  
• Some features worthy of conservation;  
• Sense of place;  
• Some detracting features. | Nationally or Regionally recognised e.g. localised areas within National Park, AONB or AGLV. Locally recognised e.g. all or the great majority of Area of Local Landscape Importance (ALLI). |
| Ordinary     | • Distinguishable landscape structure, characteristic patterns of landform and land cover often masked by land use;  
• Scope to improve management of vegetation;  
• Some features worthy of conservation;  
• Some detracting features. | |
| Poor         | • Weak landscape structure, characteristic patterns of landform and land cover are often masked by land use;  
• Lack of management and intervention has resulted in degradation;  
• Frequent detracting features. | |
| Very Poor    | • Degraded landscape structure, characteristic patterns and combinations of landform and land cover are masked by land use;  
• Lack of management / intervention has resulted in degradation;  
• Extensive detracting features. | |
| Damaged      | • Damaged landscape structure;  
• Disturbed or derelict land requires treatment;  
• Detracting features dominate. | |
| Derelict     | • Land so damaged by industrial or other development that it is incapable of beneficial use without treatment. | |

Table A.3: The General Criteria for Establishing Landscape Condition
A.2 Magnitude of Change

A.2.1 The magnitude of change is the ‘combination of the scale, extent and duration’ of the development and its impact on landscape character and visual receptors. In the case of landscape impacts this relates to:

- The size, extent or degree of change to landscape character or individual landscape features;
- Whether there is a direct impact resulting in the loss of landscape features or a change beyond the land take of the scheme having an impact on the character of the area; and,
- Whether the impact is permanent or temporary.

A.2.2 For visual impact this relates to:

- Degree of change to existing views;
- Distance of the receptor from the application site; and,
- Whether the impact is permanent or temporary.

A.2.3 The criteria for assessing the magnitude of change on visual receptors and landscape character are set out in Table A.4.

A.2.4 The magnitude of change may be negligible or no change and the resulting effect significance would also be negligible or no change, as the development would hardly be discernible or not seen at all or the loss to landscape features and the character of the area would experience very little or no change.

<table>
<thead>
<tr>
<th>Magnitude of Change</th>
<th>Landscape Character</th>
<th>Visual Amenity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High</strong></td>
<td>High degree of loss or major alteration to one or more key elements/features/characteristics of the landscape character. Introduction of elements considered to be uncharacteristic when set within the attributes of the receiving landscape.</td>
<td>Where the proposals become the only dominant feature in the scene or would form a significant and immediately apparent element which would affect the overall impression of the view.</td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td>Partial loss or alteration to one or more key elements/features/characteristics of the landscape character. Introduction of elements that may be prominent but not necessarily be considered to be substantially uncharacteristic when set within the attributes of the receiving landscape.</td>
<td>Where the proposals would form a visible and recognisable new feature in the scene but may not be immediately apparent, or become a dominant feature in the view.</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>Minor loss or alteration to one or more key elements/features/characteristics of the landscape character. Introduction of elements may not be uncharacteristic when set within the attributes of the receiving landscape.</td>
<td>The proposals constitute only a minor component of the wider view, and may not be immediately apparent to the casual observer. Awareness of the proposals would not have a marked effect on the overall quality of the scene.</td>
</tr>
<tr>
<td><strong>Negligible</strong></td>
<td>Very minor loss or alteration to one or more key elements/features/characteristics of the landscape character. Introduction of elements are not uncharacteristic with the surrounding landscape.</td>
<td>The proposals are largely indiscernible and/or they are at such a distance that they are scarcely appreciated. Consequently they have little effect on the scene.</td>
</tr>
<tr>
<td><strong>No Change</strong></td>
<td>No change to the landscape character is experienced.</td>
<td>No change to the view is experienced.</td>
</tr>
</tbody>
</table>

Table A.4: The Criteria for Establishing the Magnitude of Change
A.3 Scoring Matrix

A.3.1 The two principal criteria determining significance of effect are the magnitude of change and the environmental sensitivity of the location or receptor.

‘A higher level of significance is generally attached to large-scale effects and effects on sensitive or high-value receptors; thus small effects on highly sensitive sites can be more important than large effects on less sensitive sites. It is therefore important that a balanced and well-reasoned judgment of these two criteria is achieved’. (Guidelines for Landscape and Visual Impact Assessment’, Landscape Institute (LI) & Institute of Environmental Management and Awareness (IEMA), Third Edition, 2013).

A.3.2 The matrix shown in Table A.5 encourages transparency in the process of identifying the significance but the experience and judgement of the landscape architect is also used. Note the significance of effects may be adverse or beneficial depending upon the nature of the magnitude of change.

<table>
<thead>
<tr>
<th></th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Negligible</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Major</td>
<td>Major</td>
<td>Moderate</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td>Medium</td>
<td>Major</td>
<td>Moderate</td>
<td>Minor</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
<td>Minor</td>
<td>Minor</td>
<td>Neutral</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

Table A.5: The Significance of Effects

A.4 Nature of Impact

A.4.1 The determination of the nature of an impact is a result of judging whether the introduction of a proposed development would be of benefit or detriment to the existing landscape character or view. Therefore, the impact of a proposed development can be adverse or beneficial. Table A.6 defines the difference between adverse and beneficial.

<table>
<thead>
<tr>
<th>Nature of Impact</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse</td>
<td>The key characteristics of the existing landscape or view would be weakened by the introduction of the proposed development.</td>
</tr>
<tr>
<td>Neutral</td>
<td>The key characteristics would neither be weakened or strengthened by the proposed development.</td>
</tr>
<tr>
<td>Beneficial</td>
<td>The key characteristics of the existing landscape or view would be strengthened by the introduction of the proposed development.</td>
</tr>
</tbody>
</table>

Table A.6: The Nature of the Impact

A.5 Effects Significance

A.5.1 The effects arising from any given development will be categorised using the terms neutral, minor, moderate and major effects, with both moderate and major categories being considered as comprising significant effects. Table A.7 illustrates how each of these categories have been summarised.
## Table A.7: The Effects Significance Table

<table>
<thead>
<tr>
<th>Effect Significance</th>
<th>Landscape Character</th>
<th>Visual Amenity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Adverse</strong></td>
<td>The proposed scheme would result in effects that are at complete variance with the landform, scale and pattern of the landscape. It would permanently degrade, diminish or destroy the integrity of valued characteristic features, elements and/or their setting. A high quality landscape would be permanently changed and its quality diminished.</td>
<td>The proposals would cause a significant deterioration to an existing view.</td>
</tr>
<tr>
<td>Moderate Adverse</td>
<td>The proposed scheme be out of scale with the landscape or at odds with the local pattern and landform and it would leave an adverse impact on the landscape to recognisable quality.</td>
<td>The proposals would cause a noticeable deterioration to an existing view.</td>
</tr>
<tr>
<td>Minor Adverse</td>
<td>The proposed scheme would not entirely fit into the landform and scale of the landscape and it would have an effect on the landscape character.</td>
<td>The proposals would cause a barely perceptible deterioration to an existing view from a receptor.</td>
</tr>
<tr>
<td>Neutral</td>
<td>The proposed scheme would not effect the scale, landform and pattern of the landscape and would maintain existing landscape quality.</td>
<td>No or negligible discernible deterioration or improvement in the existing view.</td>
</tr>
<tr>
<td>Minor Beneficial</td>
<td>The proposed scheme has the potential to improve the landscape character. It would fit in with the scale, landform and pattern of the landscape and enable the incorporation of the valued characteristic features.</td>
<td>The proposed development would cause a barely perceptible improvement in the existing view.</td>
</tr>
<tr>
<td>Moderate Beneficial</td>
<td>The proposed scheme would have the potential to accord with the landscape character and improve the quality of the landscape through removal of damage caused by existing land uses.</td>
<td>The proposed development would cause a noticeable improvement in the existing view.</td>
</tr>
<tr>
<td>Major Beneficial</td>
<td>The proposed scheme would have the potential to accord seamlessly with the landscape character and significantly improve the quality of the landscape through restoration and the removal of damage caused by existing land uses.</td>
<td>The proposed development would cause a significant improvement in the existing view.</td>
</tr>
</tbody>
</table>
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Appendices

B.0 Extract from the Current Landscape Character Assessment for Northamptonshire: Landscape Character Type 18: Broad River Valley Floodplain

- 18d Billing Wharf to Woodford Mill
Appendices

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CHARACTER AREAS

18a  The Nene – Long Buckby to Weedon Bec
18b  The Nene – Weedon Bec to Duston Mill
18c  The Nene – Duston Mill to Billing Wharf
18d  The Nene – Billing Wharf to Woodford Mill
18e  The Nene – Woodford Mill to Thrapston
18f  The Nene – Thrapston to Cotterstock
18g  The Nene – Cotterstock to Warrington
18h  The Nene – Warrington to Wansford
18i  The Welland – Market Harborough to Cottingham
18j  The Welland – Cottingham to Wakerley
18k  The Welland – Tixover to Wothorpe

KEY CHARACTERISTICS

• Broad, flat and predominantly wide floodplain surrounded by rising landform of adjacent landscape types;
• Deep, alluvial clay and silt with sand and gravel, masking the underlying geology;
• River channel with slow flowing watercourse with limited bank side vegetation in areas;
• Predominance of unimproved pasture with pockets of both neutral and improved grassland and scattered arable land in fields of varying size; arable land becomes more frequent within the western section of the Nene Valley;
• Limited woodland cover confined to occasional broadleaved copses scattered throughout the floodplain;
• Hedgerow trees, although infrequent, are an important feature where they do occur, creating localised well treed areas;
• Hedgerows are generally overgrown and reinforced with post and wire fencing with intermittent sections showing evidence of decline;
• Settlement is very limited within the floodplain with a sequence of small nucleated villages on the lower valley slopes, along the western section of the River Nene;
• Wider settlement pattern of scattered farmsteads and individual dwellings;
• urban influences arising from the proximity of large urban areas and associated road infrastructure on the perimeter of some sections of the floodplain;

• minor roads generally cross the floodplain landscape at right angles to the river, with major roads also following the valley course and marking the boundary of the type;

• evidence of long periods of gravel extraction and restoration within the Nene Valley, particularly along the middle section of the Valley, with patterns of restored landscapes with numerous areas of wetland and lakes; and

• significant recreational activities within the Nene Valley landscape, mainly focused on the restored lakes.

LOCATION AND INTRODUCTION
The Broad River Valley Floodplain landscape character type occurs in two separate areas within the county, in association with the two major river valleys of the Nene and Welland. The principal area, comprising the Nene Valley, extends across the central and eastern part of the county from the west of Northampton towards the northeastern section of the county and beyond towards Peterborough. A further section of the character type is also located along the northern boundary of the county where Northamptonshire adjoins Leicestershire, adjacent to the River Welland. A total of eleven character areas have been identified, eight within the Nene Valley and three within the Welland Valley.

PHYSICAL INFLUENCES

Geology and Soils
Although the rivers flowing through the Broad River Valley Floodplain have cut down through the underlying rocks, the valley floors have been overlain in areas with glacial tills (diamicton) dating from the Quaternary period, and sand and gravels, which mask the rocks beneath. Deep alluvial clay and silt deposits have enriched the valley floors, creating soils of good quality for agricultural use. Isolated areas of river terrace gravels can also be found scattered along the upper reaches of the river floodplain.

Soils within the valleys are characteristically of a good quality and fertile, due to the rich alluvial deposits. A broad band of stoneless clayey soils, in places calcareous, and variably affected by groundwater are evident along the base of the river valley. Soils vary along the lower valley slopes and along the course of the rivers. In the River Welland and western section of the Nene these mainly include slowly permeable, seasonally waterlogged, fine loamy over clayey soils, fine silt over clayey and clayey soils, and fine loamy over clayey and clayey soils, with slowly permeable subsoils and slight seasonal waterlogging. Small pockets of deep well drained coarse loamy and sandy soils, locally over gravel and slowly permeable calcareous clayey soils are also evident. In the central section of the Nene, soils mainly comprise deep permeable, mainly fine loamy soils variably affected by groundwater, and slowly permeable, seasonally waterlogged, clayey soils with similar fine loamy over clayey soils. Lower valley slopes in the eastern section of the River Nene are dominated by well-drained calcareous clayey and fine loamy soils over limestone, in places shallow and brashy.

Landform
The Broad River Valley Floodplains comprise some of the lowest areas in the county, in places reaching a height of only 20m ASL. They form distinctive riparian landscapes with the main rivers and tributary streams following a meandering course across the floodplain. In the northeast of the county, the Nene Valley floodplain comprises a low-lying, almost flat area that progressively merges into the flat and extensive landscape that characterises the Cambridgeshire Fens to the east beyond the county. In contrast, at its source close to Badby, the Nene Valley floodplain is more confined, surrounded by the more elevated land of the Undulating Hills and Valleys. In localised areas, the floodplain is narrower when surrounded by rising landform, such as areas adjacent to the Limestone Valley Slopes, adjacent to the Nene, and where the Farmed Scarp Slopes form a backdrop to the floodplain landscape, as in the case of the Welland. Generally, however, the floodplains of the river valleys are predominantly broad.

Hydrology
The river channels of the Broad River Valley Floodplain are intrinsic to the character of this landscape type. For the majority of their course, the rivers give the impression of being slow flowing, with variable depth and height of the surrounding river banks. Bank side vegetation in general is sparse with only limited areas of the riverside being well treed. Marginal vegetation is more abundant, however. As a consequence, in a number of areas the rivers lose their dominance within the floodplain landscape. Chains of former sand and gravel pits are located within the Nene valley, a large number of which have been flooded to form artificial lakes and combine to create local nature reserves. The earliest of these support dense vegetation and wet scrubland around their margins and provide valuable wildlife and wildfowl habitats.
**18 BROAD RIVER VALLEY FLOODPLAIN**

**Land Use and Land Cover**
There is generally a dominance of grassland within the floodplain, with calcareous grassland frequently occurring adjacent to the watercourse, indicated by areas of unimproved permanent pasture with pockets of both neutral and improved grassland. Arable fields are scattered throughout the valleys, which become more frequent within the western section of the Nene Valley, and throughout the Welland Valley.

In the central section of the Nene Valley, in particular, the sequence of lakes and wetland habitats, following restoration of sand and gravel extraction areas, is a dominant influence on the landscape character.

**Woodland and Trees**
Woodland blocks of any significant size are absent from the Broad River Valley Floodplain, with tree cover being restricted to smaller broadleaved copses and areas of young tree planting. Scattered tree planting, including ash, willow, elder and oak is also evident along the riverside along with areas of scrubby vegetation. In some areas, hedgerow trees are frequent within the hedged field boundaries, creating localised areas with a well treed character. Overall, however, tree cover is very limited, with the wooded backdrop of surrounding landscape types having more significance. A sense of openness therefore prevails within the floodplain.

**Buildings and Settlement**
Settlement is generally restricted to only a small number of scattered dwellings and farmsteads, and associated river buildings such as mills. The western side of the Nene Valley is slightly more heavily settled, however, with occasional nucleated settlements, including Nether Heyford and Kislingbury rising on the slopes of the valley. In some areas, dwellings are located extremely close to the river’s edge. Overall settlement is limited within the floodplain itself, but towns and villages are frequently located on the edge of the floodplain landscape.

The Broad River Valley Floodplain is bordered by seven of the county’s fifteen urban areas, so urban areas have a more significant influence on landscape character than the pattern of intermittent individual dwellings. Influences upon the landscape type are both direct and indirect. Direct influences include views to the urban areas and, during hours of darkness, the distinctive arc of light that rises above the towns. The largest of the urban areas is Northampton, which surrounds significant proportions of the Duston Mill to Billing Wharf section of the Nene Valley. Wellingborough, Rushden and Irthlingborough also have a significant influence on the Billing Wharf to Woodford Mill character area of the Nene. These areas occupy hillside locations, are visible over wide areas, and create a backdrop to the Nene Valley Broad River Valley Floodplain. Although Raunds, Thrapston and Oundle are smaller and more compact settlements, they still exert a strong influence on the rural landscape. Indirect urban influences, which become less conspicuous with distance from each urban area, include suburban building styles and materials in otherwise rural locations, and busy infrastructure development such as motorways, ‘A’ roads and railways. The resulting influence on the floodplain is therefore one that varies between being significantly urban, to one that is deeply rural and relatively remote.

**Heritage Features**
Few areas of historic interest are evident across the landscape. A limited number of pastoral fields show evidence of ridge and furrow, although this is not widespread throughout the area, and only glimpsed in views. Occasional examples of preserved medieval fields are evident, the most significant of which occur around the settlement of Kislingbury within the Nene Valley. Other elements of interest include scattered individual features. Most notable are the registered battlefield at Delapre Golf Course, the site of Mallow Cotton medieval village, and the outskirts of the registered park and garden at Brockhill Manor, all of which are located within the Nene Valley.

**Boundaries and Field Patterns**
Hedgerows are typically overgrown hawthorn, reinforced with post and wire fences, including the use of stock proof netting. Occasional gappy stretches are evident; here, the post and wire fencing becomes more prevalent. Limited examples of wooded post and rail fencing can also be found within the floodplain along with areas of hazel hedgerow. Where hedgerow trees are present they frequently comprise mature or semi mature oak and ash, along with scattered riverside vegetation, including willow, sycamore and elder. These provide important landscape features contributing a degree of woodland cover to an otherwise sparsely wooded landscape. The river itself frequently forms the boundary to fields adjacent to the watercourse with only scattered riverside vegetation evident. Field sizes vary along the length of the Broad River Valley Floodplain with evidence of sub-division of medium sized fields by post and wire fences and lines of field trees illustrating possible field amalgamation. The field shapes are consistent, however, and include both regular and sub regular fields. By contrast, limited areas of discontinuous fields are evident around land once used for sand and gravel extraction. Drainage ditches often marking field boundaries are bordered by vegetation, including mature willow trees.
Communications and Infrastructure

The majority of roads providing access across the floodplain landscape are minor in character, often connecting settlements on either side of the river. Nevertheless, a number of major roads are present. In general, these are associated with larger settlements and provide connecting routes between development within the county and beyond. Although major roads also provide direct access across the river, they principally follow the course of the river and are located along the edge of the floodplain marking the boundary, in contrast to the minor roads that often cross the river at right angles. Sections of railways also occupying the valley floodplain landscape are, and include both dismantled sections and lines in current use. Along with the development of road and rail networks impacting upon the character of the river valleys, the presence of sewage treatment works are now a frequent occurrence within this landscape. Despite a number of areas within the Broad River Valley Floodplains retaining a rural character, large proportions have been affected by communications and infrastructure development, in particular in the Nene Valley around Northampton.

Recreation

There are numerous recreational opportunities within the Broad River Valley Floodplain. Public footpaths and bridleways occur relatively frequently, including large stretches of the Nene Way, Grand Union Canal Walk and Midshires Way stretching across the landscape. Other recreational activities exploiting the river valley include marinas, fishing, and water activities such as water skiing. Numerous caravan, camping and picnic sites are also located within the valley, along with country parks and local nature reserves. A single golf course is located on the gentle slopes of the valley side, east of Far Cotton.

Aesthetic and Perceptual Qualities

Contrasting agricultural uses of arable and pastoral land with riparian vegetation, interspersed with some significant areas of man made wetland landscape create a patchwork of colours within the landscape. Despite the variety of the land uses, however, the continuity of intrinsic elements such as hedgerows, are associated with larger settlements and provide connecting routes between development within the county and beyond. Although major roads also provide direct access across the river, they principally follow the course of the river and are located along the edge of the floodplain marking the boundary, in contrast to the minor roads that often cross the river at right angles. Sections of railways also occupying the valley floodplain landscape are, and include both dismantled sections and lines in current use. Along with the development of road and rail networks impacting upon the character of the river valleys, the presence of sewage treatment works are now a frequent occurrence within this landscape. Despite a number of areas within the Broad River Valley Floodplains retaining a rural character, large proportions have been affected by communications and infrastructure development, in particular in the Nene Valley around Northampton.

Local Distinctiveness, Landscape Condition and Landscape Change

The condition of the landscape varies and is dependent on various factors. These range at a local level from the extent to which hedgerows are managed to the influence of development, including current gravel extraction within the Nene Valley, the extent and type of restoration of workings, development such as marinas, high voltage pylons crossing the landscape, to the nature of the surrounding urban development on the edge of the landscape type. Where urban development is extensive and insensitive to the landscape character, the condition of the landscape can be regarded as low. Elsewhere, however, where the river and floodplain remains largely unspoilt, a tranquil riparian landscape of higher scenic quality prevails.
The Billing Wharf to Woodford Mill Character Area within the Nene Floodplain is the largest character area within the Broad River Valley Floodplain, extending for a significant length and width across the central eastern part of the county. A significant number of man made lakes again dominate the landscape, occupying the floodplain adjacent to the River Nene. In this location, the river is a less significant element within the landscape. The local nature reserves, country parks and lagoons in this area have been created from former gravel workings providing areas for not only public enjoyment and access, but also valuable habitats in the form of wet grasslands and reed beds, and nationally important areas for wildfowl and wading birds. Sections of dismantled railway and a number of high voltage pylons are also evident along the valley, the latter of which converge at the sub station northwest of Grendon. Surrounding the lakes is a landscape characterised by pastoral and arable fields, although water elements continue to dominate the majority of views.

Although urban influences are less evident within the character area than to the west, the impact of development on the edge of the floodplain at Irthlingborough, Rushden and Wellingborough remains prominent, including the development of Irthlingborough football ground to the east of the town, and also the surrounding industrial units, which extend into the floodplain. Further developments including active gravel pits, such as those to the west of Stanwick and at Irthlingborough, and sewage treatment plants also have an impact on the character of the landscape. Beyond these influences however, the area is very sparsely populated and settlement is confined to isolated dwellings and occasional farmsteads.

Whilst woodland cover remains sparse, a number of broadleaved copses contribute to the overall character. They frequently surround valley ponds, lakes and lagoons, thus helping to integrate these artificial waterbodies, created after gravel extraction has finished, into their landscape setting. More sensitive planting is required in a number of areas, however, to allow these man made features to integrate more harmoniously with their surroundings. Significant tree planting is also evident around lakes at Summer Leys Nature Reserve, south of Great Doddington. Here, new planting creates a sense of enclosure and limits views to the surrounding landscape.

Summer Leys has been created through the restoration of a disused gravel pits and includes a number of islands left in the centre of the former pits. It is valuable for waterfowl and wading birds, and often rare mammals, birds, dragonflies and flowers can be found. The nature reserve has both car parking and picnic facilities. Other areas of recreational interest in the valley include fishing, sailing, camping and caravan facilities southeast of Earls Barton, fishing west of Ringstead, watersports and fishing at Ditchford Lakes and Meadows, again on the site of a restored gravel pit, and scattered camping and caravan sites. A section of the Nene Way follows the valley floodplain together with a number of minor footpaths.
The main area of historic interest within the valley is the site of the medieval village of Mallows Cotton, west of Raunds. The site is located on a slightly raised gravel peninsula on the edge of the floodplain and comprises a series of earthworks indicating that the hamlet comprised a series of building plots set about an open space or ‘green’ which was approached along a sinuous trackway branching from Cotton Lane, the former road from Higham Ferrers to Thrapston. To the south and west, the hamlet was flanked by an embankment and a relict stream channel, that was once occupied by the Cotton Brook. A less substantial earthwork to the northeast indicated an earlier course of the stream, and although no earthworks are visible to the north, an excavated hedgeline is indicative of the edge of a major river channel that was a branch of the Nene. Mallows Cotton formed one of three villages in the area; West Cotton and Mill Cotton were largely destroyed during gravel extraction on the 1970s.

The Nene – Woodford Mill to Thrapston

The Nene – Woodford Mill to Thrapston Character Area is one of the shortest sections of the Nene Broad River Valley Floodplain. Here, the River Nene is bordered by relatively shallow banks with reeds and rushes occupying the broad, flat floodplain. In some sections, however, the floodplain landscape is limited by the rising landform of the Rolling Ironstone Valley Slopes and Limestone Valley Slopes. The river is deep and follows a more meandering course within the landscape compared to other character areas, though it retains a still, tranquil and rural character. Improved pastoral fields with grazing cattle characterise the landscape with horse paddocks and pockets of under grazed rougher pasture. Woodland cover is limited to scattered willows and ash lining the course of the river. The succession of overgrown hedgerows within the floodplain, and woodland and hedgerows in distant views, combine to create the sense of a well-wooded landscape and obscure views to distant hills. The generally open character of the river floodplain allows some extensive views along the valley bottom. Glimpsed vistas are also possible to the road network that lies beyond, and on the fringe of the floodplain.

Settlement is extremely limited and includes only occasional dwellings confined to the southern boundary west of Ringstead, and northern boundary southwest of Thrapston. There are no roads within the character area, and dwellings are accessed via roads located on the area's boundary. Glimpses of small settlements located adjacent to the floodplain are possible, including prominent church spires such as the spire at Woodford. The Nene Way and a number of minor footpaths, provide the only access to the floodplain, with the river hosting recreational opportunities such as boating, and a dry dock at Woodford Riverside. Evidence of the industrial past of the area is apparent in the line of a dismantled railway cutting across the valley landscape, and which provides the line of a public footpath beyond the floodplain.