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## APPENDICES

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## 1 Introduction

- 1.1 The Landscape and Visual impact Assessment (LVIA) has been prepared by Influence-cla Limited, Chartered Landscape Architects and Environmental Planners.
- 1.2 Influence-cla Ltd was appointed by SBRice Consulting on behalf of Barker-Mill Estates to carry out an LVIA of a White Mills Marina, Earls Barton, Northamptonshire. The LVIA has been undertaken to accompany a planning application to be submitted in January 2014 and is presented as part of wider Environmental Statement.
- 1.3 The proposed White Mills Marina is located on agricultural grazing land adjacent to the River Nene and Station Road, approximately 1km south of Earls Barton Village (see Figure [Vol 2 Ch 5 \(1.3\)](#)).

## 2 Planning Context

### Introduction

- 2.1 Aspects of planning guidance and policy, which are of particular relevance to this report, are examined below. Relevant designations within the LVIA study area are shown in Figure Vol 2 Ch 5 (2.1). Full citations of the relevant policies can be found in Appendix A.

### International Legislation

- 2.2 The European Landscape Convention (ELC), which was signed by the UK in February 2006 and became binding in 2007, is the first international convention to focus specifically on landscape issues and aims to protect, manage and plan landscapes in Europe. The ELC highlights the importance of developing landscape policies dedicated to the protection, management and creation of landscapes, and establishing procedures for the general public and other stakeholders to participate in policy creation and implementation.
- 2.3 The ELC 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*” (CoE, 2004).

### National Legislation

- 2.4 This LVIA takes into account the national legislation and policy relevant to landscape and visual amenity, ecology and cultural heritage. The relevant legislation includes *The Hedgerow Regulations* (UK Parliament, 1997) which aims to protect hedgerows and play an important role in supporting and enhancing biodiversity, as well as defining the character of the English countryside. According to the Regulations, a hedgerow is important if it has existed for 30 years or more and it satisfies various wildlife, landscape or historical criteria specified in the Regulations.

### National Planning Policy Framework

- 2.5 The Government published the National Planning Policy Framework (NPPF) on the 27th March 2012. The NPPF replaced Planning Policy Statements (PPS) and Planning Policy Guidance (PPG) documents. The NPPF condenses and clarifies the Government’s previous Planning Policies and provides a legislative framework for promoting sustainable development in local communities.
- 2.6 In essence, the NPPF provides simplification of the previous 44 documents and condenses the information into guidance that is relevant, proportionate and necessary to allow for local councils and communities to “*produce their own distinctive local and neighbourhood plans to reflect the needs and priorities of their communities*” (DCLG, 2012). The NPPF must be taken into account in the preparation of local and neighbourhood plans and is a material consideration in planning decisions, but does not provide specific policies.
- 2.7 LPAs should seek to achieve each of the economic, social and environmental

dimensions of sustainable development. The NPPF defines the environmental dimension as: “*contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, pollution, and mitigate and adapt to climate change including moving to a low carbon economy*” (DCLG, 2012).

- 2.8 The NPPF proposes that development that accords with an up-to-date Local Plan and is sustainable should be approved, and development that conflicts with the Local Plan or is not sustainable should be refused unless other material considerations indicate otherwise.
- 2.9 The NPPF sets out 12 core planning principles that should underpin both plan-making and decision-taking. The NPPF emphasises that the planning system should take account of the differing roles and character of areas and recognise the intrinsic character and beauty of the countryside to support a thriving rural community. It also stresses the importance of high quality design and providing good standard of amenity, contributing to conserving and enhancing the natural environment. The key objectives within the guidance, relevant to the current development proposals, include The Presumption in Favour of Sustainable Development, Conserve and Enhance the Natural Environment, Conserving and Enhancing the Historic Environment, and are summarised in **Appendix A**.

### Regional Planning

- 2.10 On the 20th March 2013 the Secretary of State laid in Parliament a statutory instrument to revoke the East Midlands Regional Plan (Regional Spatial Strategy) for the East Midlands. This came into force on 12th April 2013 as such the East Midlands Regional Plan no longer a material consideration and there is no policy on the regional level, which is relevant to this planning application.

### Local Policy and Guidance

- 2.11 The Application Site is located within the boundaries of Borough Council of Wellingborough. Policies in the Borough of Wellingborough Local Plan are gradually being replaced by those in the Local Development Framework (LDF).
- 2.12 The relevant LDF documents include:
- North Northamptonshire Core Spatial Strategy (adopted 2008). This Development Plan Document (DPD) sets out overall plan for the whole of North Northamptonshire for the period to 2021;
  - Former Local Plan (adopted in 1999 and altered in 2004) Policies saved in 2007;
  - Trees and Landscape Supplementary Planning Document (SPD) (adopted June 2013); and
  - Biodiversity SPD (adopted 2011).

- 2.13 The following policies from the North Northamptonshire Core Spatial Strategy are relevant to this planning application and landscape and visual issues:
- Policy 5 Green Infrastructure; and
  - Policy 13 General Sustainable Development Principles.
- 2.14 A number of policies from the former Local Plan (which was adopted in 1999 and altered in 2004) were 'saved' in 2007, since they continue to be used by the Borough Council in the determination of planning applications. The policies relevant to the LVIA include:
- Policy G6: Open Countryside; and
  - Policy G18 Natural Environment.
- 2.15 All above local policies have been considered for this LVIA and there are no landscape designations within the LVIA study area (for citations of these policies please refer to **Appendix A**).
- 2.16 Trees and Landscape SPD (adopted June 2013) sets out approach to landscape design and tree matters which affect new developments, and promotes high quality, well maintained landscapes and open spaces.
- 2.17 Biodiversity SPD explains how biodiversity shall be incorporated into the development process to ensure that the requirements of legislation and policy are met.

### Other Relevant Documentation

- 2.18 Northamptonshire Biodiversity Action Plan (BAP) is Northamptonshire's strategy for the conservation of our most threatened species and habitats.
- 2.19 Nene Valley Strategic Plan provides an overarching leisure and environmental framework to help develop the Valley's existing assets – environmental, natural, cultural and economic – through conservation, enhancement and as an integral part of new development. The Plan Recognises the significance of the River Nene and surrounding natural, historic, cultural and heritage assets and guides strategic development in the Valley to support green infrastructure as appropriate to the area.
- 2.20 Northamptonshire's Environmental Character and Green Infrastructure Suite provides a set of documents on County's environmental, landscape and historic character, biodiversity and green infrastructure.

### 3 Methodology

#### Guidance

- 3.1 The Landscape and Visual Impact Assessment (LVIA) and supporting studies and surveys were conducted in accordance with the principles set out by *Landscape Character Assessment Guidance for England and Scotland* (CA and SNH, 2002) and *Guidelines for Landscape and Visual Impact Assessment 3rd Edition* (LI and IEMA, 2013).
- 3.2 Viewpoint photographs have been presented in accordance with the LI's Advice Note 01/11 *Photography and Photomontage in Landscape and Visual Impact Assessment* (LI, 2011).
- 3.3 A detailed methodology statement, including the method of assessing the nature of receptor (sensitivity), nature of effect (magnitude), and significance of effect is provided in **Appendix B**.

#### Study Area

- 3.4 A computer-modelled Zone of Theoretical Visibility (ZTV) was initially run at a 15km radius (see Figure **Vol 2 Ch 5 (3.4)**) to establish the theoretical visibility of the proposed development in the surrounding landscape and assist in the process of defining the LVIA study area. This theoretical ('worst-case scenario') visibility was then verified on site to take account of screening factors other than topography, such as built form and vegetation.
- 3.5 Topography plan is shown in Figure **Vol 2 Ch 5 (3.5)**.
- 3.6 Following these initial desktop studies and a site visit, it was found that the actual visibility of the site and the proposed development, where landscape and visual impacts could potentially occur, would be restricted to maximum 4km from the site. This area has been selected as a study area for the LVIA. Only landscape and visual receptors within the LVIA study area have been considered in the assessment, as there is no potential for landscape and/or visual impacts beyond 4km from the site.

#### Assumptions

- 3.7 The principal assumptions are as follows.
- The land allocated for the proposed development of the marina is referred to as the 'application site' throughout this report. Should the description 'application site' not give enough clarity in the context of the paragraph it relates to, then further explanation is provided.
  - It is assumed that the construction of the proposed development would take up to 1 year.

- The LVIA considers the impact of Mineral and Waste extraction and the cumulative effects on the landscape and visual receptors within the LVIA study area. These sites have been included within the Northamptonshire Mineral and Waste Development Framework (MWDF), Locations for Minerals Development (Development Plan Document, Adopted 2011) and Locations for Waste Development (Development Plan Document). The policies in the DPD allocate specific sites for minerals development. The allocation of sites within this DPD does not equate to the granting of planning permission. They have been considered in conjunction with the findings from the Heritage and Archaeological Assessment.
- The assessment of setting on heritage assets is provided in the Heritage and Archaeological Assessment.

### Consultation

- 3.8 The Northampton County Council was consulted in August 2012 in relation to the LVIA study area, documentation and policy relevant to this assessment, key sensitivities in the area, including landscape character, heritage assets, designations, and advice on the selection of viewpoints. Peter Moore LPA and Tina Cuss Senior Environmental Planner provided guidance on key issues. The potential impact on the Special Protection Area along the Nene Valley was identified as the primary issue.

## 4 Landscape Baseline Conditions

### Introduction

- 4.1 The landscape character and features within the LVIA study area are assessed and examined below and relevant information on landscape character and features is shown in Figure [Vol 2 Ch 5 \(4.1\)](#).
- 4.2 The Countryside Agency guidelines (2002) identify three main levels of Landscape Character Assessment:
- National and regional scale;
  - County, district and unitary authority scale; and
  - Local, parish and site-scale.
- 4.3 Natural England identifies the LVIA study area as falling within two National Character Areas (NCA):
- NCA 89 Northampton Vales (covers the application site); and
  - NCA 91 Yardley-Whittlewood Ridge.
- 4.4 At the County and District level, the LVIA study area falls within the following Landscape Character Types (LCT) and Landscape Character Areas (LCA), as defined in the *Northamptonshire Current Landscape Character Assessment*:
- Broad River Valley Floodplain LCT and the Nene – Billing Wharf to Woodford Mill LCA 18d (covering the application site and the majority of the LVIA study area falling within the ZTV);
  - Rolling Ironstone Valley Slopes LCT and Ecton and Earls Barton Slopes LCA 4c;
  - Clay Plateau LCT and Sywell Plateau LCA 5b;
  - Limestone Valley Slopes LCT and Wollaston to Irchester LCA 12a; and
  - Undulating Claylands LCT Hackleton Claylands LCA 6b.

### Designations

- 4.5 There are no landscape designations within the LVIA study area and a number of nature and heritage designations of importance as shown in Figure [Vol 2 Ch 5 \(2.1\)](#).

#### *National Designations*

- 4.6 There are four Scheduled Ancient Monuments (SAM) within the LVIA study area. A Roman Villa 200m west of Doddington Mill, approximately 2km northeast; Place

House Moat and Fish Pond, approximately 1.5km south west; Bowl barrow 530m north east of Rose Farm, approximately 1.5km west and Earls Barton motte castle approximately 1.7km north of the application site.

- 4.7 There is one Registered Park and Garden, within the LVIA study area – Castle Ashby Grade I Listed Building, located approximately 1km south from the application site.
- 4.8 There are several Listed Buildings within the LVIA study area. These are predominantly contained within the small villages and have local settings only. The nearest to the application site is the Church of St Mary The Virgin, Whiston, approximately 1.5km south of the application site. Other important Listed Buildings within the LVIA study area include:
- Church of All Saints (Grade I), Earls Barton, approximately 1.5km north of the application site
  - Church of St Mary Magdalene (Grade I), Ecton, approximately 3km northwest of the application site.
  - The Old Vicarage, Great Doddington (Grade I), approximately 4km northeast of the application site.
- 4.9 The LVIA study area contains one Site of Special Scientific Interest (SSSI) - Upper Nene Valley Gravel Pitts approximately 50m east from the application site. This site is a registered Ramsar Site and Special Protection Area (SPA).

### ***Local Designations***

- 4.10 There are six Conservation Areas within the LVIA study area – Grendon, approximately 2km southeast; Castle Ashby approximately 2.5km south; Cogenhoe approximately 3km southwest; Ecton approximately 3km west; Earls Barton approximately 1.5km north and Great Doddington approximately 3.5km northeast of the application site.
- 4.11 There is one Local Nature Reserve (LNR) within the LVIA study area – Summer Leys, approximately 2.5km north east from the application site.
- 4.12 Designations of Open Countryside and Site of Nature Conservation Value are located within the study area.
- 4.13 Designations which sit within the ZTV include all SSSI, Local Nature Reserve, Open Countryside, Site of Nature Conservation Value, SPA, SAMs and some Listed Buildings. The Conservation Areas of Great Doddington, Earls Barton, Cogenhoe, Ecton and Grendon fall within the ZTV; Castle Ashby falls outside of the ZTV. Those designations falling outside of the ZTV will have no potential for impact from the proposed development.

### **National and Regional Landscape Character**

- 4.14 The proposed development is located within NCA 89: Northampton Vales, which

covers the majority of the LVIA study area. The southern part of the LVIA study area incorporates as well the NCA 91: Yardley-Whittlewood Ridge. The key characteristics of these NCAs and their descriptions are included in [Appendix C](#).

### County and Local Landscape Character

- 4.15 The LVIA study area falls within a number of Regional Landscape Character Types and Areas:
- Broad River Valley Floodplain LCT and The Nene – Billing Wharf to Woodford Mill LCA 18d;
  - Rolling Ironstone Valley Slopes LCT and Ecton and Earls Barton Slopes LCA 4c;
  - Clay Plateau LCT and Sywell Plateau LCA 5b;
  - Limestone Valley Slopes LCT and Wollaston to Irchester LCA 12a; and
  - Undulating Claylands LCT and Hackleton Claylands LCA 6b.
- 4.16 The application site falls within Broad River Valley Floodplain Landscape Character Type and the Nene – Billing Wharf to Woodford Mill LCA 18d. A detailed description of these LCT and LCA taken from the Current Northamptonshire Landscape Character Assessment is provided in [Appendix C](#).
- 4.17 Generally the study area is broad river valley flood plain, extending for a significant length and width across the study area. 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. Rising in the north with Earls Barton located on the south facing slopes approximately 1km north of the application site. In the east, Great Doddington sits upon the higher Ridge line, with extended views along the valley basin across the application site, towards Whiston and Castle Ashby on the opposite ridge of the vale.
- 4.18 Views across the valley floodplain, formed of mid-sized arable and pastoral fields of semi-regular pattern, are open. Distinctive tree lined hedgerow boundaries and mixed woodland blend across many of the views, forming a general pattern rather than the identification of any specific landscape elements or features.
- 4.19 On the higher ground, the gently undulating terrain of open arable fields and tall mature hedgerow boundaries, interspersed with clumps of mixed dense woodland, restrict some views. The main transport route of the A45 divides the application site and Earls Barton to the north, following the valley flood plain, linking the major Town of Northampton in the west with other major settlements of Wellingborough and Rushden in the east. A series of small winding country lanes, lined with mature dense hedgerow, link many of the small isolated villages and settlements.
- 4.20 The local nature reserves, country parks and lagoons in this area have been created from former gravel workings providing valuable habitats, designated as

Special Areas of Conservation. Dense clumps of semi ancient broadleaf woodland are remnant of the Ancient Royal forest that populated the landscape centuries ago. Although urban influences are less evident, the impact of development on the edge of the floodplain at Irthlingborough, Rushden and Wellingborough remains prominent.

### Site Specific Landscape

- 4.21 The proposed marina development is located on the current pastoral grazing land adjacent to the river Nene. Bounded by mature tree lined hedgerow to the north and overgrown dense hedgerow in the east following the edge of station road. Along the northern boundary, a large industrial warehousing and container depot is located. On the opposite side of Station Road, north east of the application site, a permanent privately owned “pitch” for the Gypsy and Traveller community has been sited.
- 4.22 Along the southern boundary, the River Nene forks around a small island. The southernmost fork is designed for river flow, restricted access limits the area to parking for some barges rather than through traffic. The nearest river passage is controlled by lock gate at the eastern edge, with a bridge over the river and parking spots for boats immediately beyond.
- 4.23 The application site is located on the valley floodplain at approximately AOD 48m, the land gently rises to 104m to the north of Earls Barton and 90m AOD at Castle Ashby in the south. Small irregular arable and pastoral fields form much of the vegetative landscape within the area, bounded by some mature and unkempt tree lined hedgerow. Pockets of Ash and other broad leaf woodland are dotted across the landscape, with more riparian vegetation found along the river Nene. To the east, manmade gravel pits extend along the valley floor on the southern banks of the River Nene, forming a nature reserve designated as a Special Area of Conservation.
- 4.24 A series of small country lanes, banked in many places by mature hedging, link the cluster of sizeable village settlements and occasional isolated farmsteads. The settlements, primarily located to the north and south of the River Nene, away from the floodplain, are spaced within only a few kilometres of each other, close to the main transport route of the A45 running on an east west axis. This provides the most significant transport link to the larger towns of Northampton and the urban fringe of Great Billing, approximately 4.5km to the west of the application site, and Wellingborough a similar distance to the north east.

### Assessment of Sensitivity

- 4.25 The only Landscape Character Area that would experience potential landscape impacts due to the proposed development is Nene – Billing Wharf to Woodford Mill LCA 18d. This is predominantly due to the limited visibility of the application site within the surrounding landscape, the scale and nature of the proposed development.
- 4.26 There are no landscape designations within the LVIA study area. There are

- heritage designations within the LVIA study area, however; these are screened by mature trees and intervening vegetation.
- 4.27 The landscape within the application site is generally of good quality, rich in diversity, with significant features such as field boundary vegetation. There are features of higher quality outside the application site, riparian vegetation and remnant semi ancient broad leaf woodland, the river Nene and Gravel Pits.
- 4.28 The scale and nature of the proposed development is compatible with the surrounding landscape (i.e. the marina development is of low height and does not create a potential to significantly affect the local views). The application site for the marina development lies within a working agricultural landscape along the River Nene.
- 4.29 The landscape within the application site has a limited contribution to the overall landscape character within the LVIA study area. The only distinctive feature contributing to the pastoral floodplain is a tree belt to the north of the site, and river bank to the south, which is partially visible from surrounding areas. The proposed development will only alter the river bank.
- 4.30 The agricultural land within the site is in good condition. Boundary vegetation is not managed and of good condition.
- 4.31 The site, if developed, gives the opportunity for an effective landscape strategy to be implemented, including the retention, protection and additional planting of boundary trees. Enhancement of boundary vegetation to the east of the site, limiting views from nearby PRow and nature reserve.
- 4.32 Overall, the sensitivity of landscape within the LCA 18d to the proposed development has been assessed as medium.

## 5 Visual Assessment Baseline

### Introduction

- 5.1 Figure Vol 2 Ch 5 (5.1) illustrates the Zone of Theoretical Visibility up to 4km from the application site and natural barriers restricting views of the application site. The figure also shows the location of viewpoints selected for the assessment of impacts on visual amenity.

### General Views

- 5.2 The landscape within the application site and its surroundings is generally open with a range of views, limited by the gentle valley topography and distinct mature hedgerow vegetation and clumps of semi ancient broadleaf woodland. The views along the valley floor tend to be shorter in depth, with the flatter plane and mature tree lined vegetation lifting the eye to a shorter horizon. Partial views of the raised valley ridgelines to the north and south are possible through the gaps in vegetation. Views from the higher ground can be expansive, save for where mature vegetation, undulating topography or built form, intervene.
- 5.3 Due to the nature of the development and its location along the valley floodplain next to the River Nene, there are very few residential developments within the immediate vicinity that will have clear views of the site. The Traveller community at the north eastern edge of the development will be the closest residential settlement less than 20m away. The industrial site at the northern edge is equally close, although screened by dense tree lined vegetation. The ZTV identifies that the biggest visual impact will occur along the valley floor, although dense riparian vegetation, short depth of view, due to the flat topography, will provide a significant visual barrier. It indicates similar visibility for the villages of Earls Barton, Great Doddington, Grendon, Whiston, Cogonhoe and Ecton. Only partial views may be possible from the site facing edges of these settlements but in most cases vegetation and intervening landform obscure the views.

### Visual Receptors

- 5.4 Key visual receptors with the potential to be affected by the proposed development include:
- Users of Public Rights of Way in the vicinity of the site, in particular to the east and west;
  - Few residents of the nearby settlement edges and some local farms; and
  - Road and canal users.

### Descriptions of Views from Representative Viewpoints

- 5.5 A number of viewpoints have been recorded to illustrate the general range of visibility of the application site within the LVIA study area for the receptors outlined above. These viewpoints represent areas with the potential to suffer most visual impact due to the proposed development but also viewpoint locations illustrating

more restricted views experienced by sensitive receptors. Receptors represented by these viewpoints include local residents, users of PRoW and other local footpaths, and road users, including pedestrians, motorists and cyclists.

### ***Viewpoint 1***

- 5.6 This view (see Figure [Vol 2 Ch 5 \(5.6\)](#)) was recorded from a car park, approximately 200m south west of the application site off Station Road, at the edge of the nature reserve looking northwest towards the application site.
- 5.7 At the edge of the nature reserve and River Nene, the low lying floodplain is surrounded by dense riparian vegetation with mature broad leaf trees to the north and east. The restricted views from this location will be experienced by visitors to nature reserve, walkers, passing motorists and people using the river. The sensitivity of receptors at this viewpoint has been assessed as high.

### ***Viewpoint 2***

- 5.8 This view (see Figure [Vol 2 Ch 5 \(5.8\)](#)) was recorded on a footpath on Station Road over the River Nene, next to the lock gate on the south west boundary edge of the application site.
- 5.9 Slightly elevated, views along station road are tunnelled, with the dense roadside hedgerows and mature trees. To the east the view is more open yet still short as the river meanders and the tall riparian vegetation limits the distance of visibility. Some longer views are possible through gaps within the vegetation, experienced by walkers, users of the canal and motorists. The sensitivity of receptors at this viewpoint has been assessed as medium.

### ***Viewpoint 3***

- 5.10 This view (see Figure [Vol 2 Ch 5 \(5.10\)](#)) was recorded from public footpath along the southern edge of the application site.
- 5.11 Along the river Bank of the River Nene, the views are relatively open. To the south and west the raised valley topography crowned with tall mature trees is visible in the distance. Mid-range views are obscured to the west by the tall mature hedgerow vegetation. To the north east and west, tall mature trees densely spaced, provide a significant screen with occasional gaps offering longer views. This view will be experienced by walkers and users of the river. The sensitivity of receptors at this viewpoint has been assessed as medium.

### ***Viewpoint 4***

- 5.12 This view (see Figure [Vol 2 Ch 5 \(5.12\)](#)) was taken from public footpath, running east from Northamptonshire Round, looking east towards the application site.
- 5.13 Open arable fields to the south are bordered by dense, overgrown tree lined hedgerow to the north and east, containing the views. To the south views open across the arable fields leading to the strip of riparian vegetation bordering the River Nene, before rising gently on the opposite north facing slopes towards

Whiston. This is a simple vegetative landscape, with occasional pylons populating the horizon, experienced by walkers and people accessing the fields. The sensitivity of receptors at this viewpoint has been assessed as medium.

### ***Viewpoint 5***

- 5.14 This view (see Figure [Vol 2 Ch 5 \(5.14\)](#)) was recorded from footpath east of Compton Way, Earls Barton, looking south towards the application site.
- 5.15 The field is bounded by overgrown tree lined hedgerow in the west and residential housing in the east. To the south the views across the open arable fields are bisected by the dense strip of nearby woodland vegetation bordering the A45. Rising further south is the continued pattern of arable fields interspersed by mature trees. This view will be experienced by walkers and some residents. The sensitivity of receptors at this viewpoint has been assessed as high.

### ***Viewpoint 6***

- 5.16 This view (see Figure [Vol 2 Ch 5 \(5.16\)](#)) was taken from bridleway leading to the Nene Way, south of Earls Barton, looking southwest towards the application site.
- 5.17 A relatively contained view with tall hedgerows lining each side of the narrow lane, field entrances provide wider views across the gently undulating arable fields bordered by tall tree lined hedgerows. The main transport route of the A45 divides the viewpoint and the application site in the south west. The higher ridge line towards Whiston is visible in the distance, although the dense riparian vegetation and tree coverage is prominent. The view will be experienced by walkers and motorists. The sensitivity of receptors at this viewpoint has been assessed as medium.

### ***Viewpoint 7***

- 5.18 This view (see Figure [Vol 2 Ch 5 \(5.18\)](#)) was taken from a public footpath, south of Great Doddington, looking southwest towards the application site.
- 5.19 On the south facing slope, above the valley floodplain, at Great Doddington, the footpath across the open pastoral fields bordered by low lying hedgerow provide open views to the opposite ridge line. In the mid and long distance the views of the dense vegetation and tree coverage blend with occasional patches of arable fields. The view will be experienced by walkers and residents. The sensitivity of receptors at this viewpoint has been assessed as high.

### ***Viewpoint 8***

- 5.20 This view (see Figure [Vol 2 Ch 5 \(5.20\)](#)) was taken from public footpath off Barton Fields, Ecton looking south east towards the application site.
- 5.21 On raised topography, the pastoral grazing land is bordered by dense tall mixed broad leaf woodland. As the field gently slopes southeast towards the application site, views of the distant ridgeline are visible through the gaps in the tree canopy. The view will be experienced by walkers and residents. The sensitivity of receptors

at this viewpoint has been assessed as high.

### ***Viewpoint 9***

- 5.22 This view (see Figure [Vol 2 Ch 5 \(5.22\)](#)) was taken from a public footpath of Whiston Road, Cogenhoe, looking northeast towards the application site.
- 5.23 Gently undulating arable fields bordered by dense mixed hedgerow and tree coverage to the south and west funnel the view to Earls Barton on the opposite side of the valley. The sloping field contains the view to the north however gaps along the tree lined hedgerow to the south provide partial views of the undulating field terrain on the opposite side of Whiston Road, experienced by residents and walkers. The sensitivity of receptors at this viewpoint has been assessed as high.

### ***Viewpoint 10***

- 5.24 This view (see Figure [Vol 2 Ch 5 \(5.24\)](#)) was taken from St Mary the Virgin Church, Whiston, looking northeast towards the application site.
- 5.25 On raised ground at the edge of the church, low lying hedgerows allow open views across the arable fields, bordered by dense mature hedgerows. The valley floodplain is formed of mixed fields, densely populated with broad leaf woodland and rich riparian vegetation. To the north the large settlement of Earls Barton is clearly visible. To the southeast and west the views are contained by the mature trees and hedging bordering the church perimeter and the built form of the church itself. The view will be experienced by residents and visitors to the church. The sensitivity of receptors at this viewpoint has been assessed as high.

### ***Viewpoint 11***

- 5.26 This view (see Figure [Vol 2 Ch 5 \(5.26\)](#)) was taken from public footpath off lane to the north of Parkhill Farm, Castle Ashby, looking north towards the application site.
- 5.27 At the edge of estate parkland to the west and open arable fields to the east, the view is only limited by the dense broadleaf woodland running along the northern field boundary. To the south, the view is similarly restricted by the dense woodland surrounding the Menagerie pond and further west, the imposing built form of Castle Ashby. The view will be experienced by walkers, motorists and the estate workers. The sensitivity of receptors at this viewpoint has been assessed as medium.

### ***Viewpoint 12***

- 5.28 This view (see Figure [Vol 2 Ch 5 \(5.28\)](#)) was taken from public footpath north of Church of St Mary, Grendon, looking northwest towards the application site.
- 5.29 On elevated ground, the low lying hedgerows bordering the mixed pastoral and arable fields, gently undulating towards the valley flood plain in the north, are expansive. The distant ridgeline above Earls Barton is clearly visible. To the south and the east, the vegetative boundary surrounding the fields enclose the view and to the west, the horizon is limited to the opposite field edge, experienced by walkers and residents. The sensitivity of receptors at this viewpoint has been assessed as

medium.

**Table 1 Summary of Viewpoints' Sensitivity**

Viewpoint	Key Receptors	Figure	Sensitivity
Viewpoint 1	PRoW users, road users, visitors to nature reserve and river users	<a href="#">Vol 2 Ch 5 (5.6)</a>	High
Viewpoint 2	PRoW users, road users, river users	<a href="#">Vol 2 Ch 5 (5.8)</a>	Medium
Viewpoint 3	PRoW users, river users	<a href="#">Vol 2 Ch 5 (5.10)</a>	Medium
Viewpoint 4	PRoW users	<a href="#">Vol 2 Ch 5 (5.12)</a>	Medium
Viewpoint 5	PRoW users	<a href="#">Vol 2 Ch 5 (5.14)</a>	High
Viewpoint 6	PRoW users, motorists	<a href="#">Vol 2 Ch 5 (5.16)</a>	Medium
Viewpoint 7	Residents, PRoW users	<a href="#">Vol 2 Ch 5 (5.18)</a>	High
Viewpoint 8	Residents, PRoW users	<a href="#">Vol 2 Ch 5 (5.20)</a>	High
Viewpoint 9	PRoW users	<a href="#">Vol 2 Ch 5 (5.22)</a>	High
Viewpoint 10	PRoW users, visitors to the church	<a href="#">Vol 2 Ch 5 (5.24)</a>	High
Viewpoint 11	PRoW users, road users	<a href="#">Vol 2 Ch 5 (5.26)</a>	Medium
Viewpoint 12	PRoW users	<a href="#">Vol 2 Ch 5 (5.28)</a>	High

## 6 Potential Landscape and Visual Impacts

### Introduction

6.1 The LVIA baseline provided an appraisal of the existing landscape and visual resource within the application site and the LVIA study area. The following section of the report explains the nature and extent of the proposed development and brings forward and summarises the relevant constraints and opportunities, which can now be set in the context of the existing site conditions and development proposals.

### Proposed Development

6.2 White Mills Marina is proposed within the application site off Station Road. The proposed marina development comprises:

- Initial excavation and mineral extraction. As such the marina basin and perimeter edges are to be constructed of site won material to raise the ground levels of the site forming a new marina basin after the mineral extraction has taken place.
- A permanent Facilities Building to include Chandlery, Marina Offices, Toilets & Showers, Brokerage, Storage, Plant Room & Reception Area.
- A new Canal Entrance & Stop Plank structure will be provided to Canal & River Trust's standard specification to enable boats to safely enter and exit the marina.
- Permanent berthing for 141 narrow boats which will include all 'floating' jetties and walkways so as to maintain a constant set freeboard distance as the river water level fluctuates.
- A permanent Services Compound to include Recycling Bin area, Bunded Fuel Tank area, Coal & Gas area, and dedicated parking.
- A dedicated Fuel, Water & Foul Pump-out (for on-board chemical toilets) area, viewable from the Facilities Building
- The materials used in the construction of the Facilities Building & Services Compound will be agreed with the Local Authority (Northamptonshire County Council) before works commence.
- A permanent new access road with porous surface, accessed entrance off Station Road. The entrance will comply with Highway regulations.
- An allocated track/road will be marked around the North & East of the marina purely for the use of emergency vehicles.
- Other than the marina entrance structure, a 6m easement will be maintained along the river boundary to facilitate CRT (Canal & River Trust) maintenance and emergency vehicle access.

- Areas of ecological enhancement are to be incorporated to encourage an increase in Flora & Fauna. The site itself will be landscaped in accordance with an approved scheme.
- A Low Impact Lighting Scheme which will include buildings / jetty / walkway illumination and low level bollard lighting to all access / parking areas to provide a safe yet low glare solution.
- The Facilities Building will have renewable energy technologies to include Photovoltaic Panels (electricity) situated on the south facing roofs slopes and Water Source Heat Pumps (Heating) to extract the energy from the marina basin water body
- All Surface Water drainage will be SuDS systems incorporating Oil / Petrol interceptors as appropriate & using natural porous surfacing materials where possible
- Foul Water drainage from the Facilities Building will be processed via a “Conder” type unit or similar with the outfall draining into the existing diverted watercourse. The Pump-Out will have a separate 20,000 litre tank located underground, adjacent to the Facilities Building

6.3 For the purposes of this assessment, the key time frames for the proposed development have been identified as being:

- Construction – up to 1 year;
- Operational – 3 months and beyond: development is complete and includes aftercare periods.

### **Potential Landscape and Visual Impacts**

6.4 During construction, the proposed development would cause adverse and temporary impacts on the local landscape. Agricultural land would be replaced by the marina, some hedgerows, trees and vegetation will be lost. Parts of the river bank will be removed, as well as the footpath. The adjacent road would experience increased traffic with site activities, although large vehicles already access the neighbouring industrial unit on the northern boundary.

6.5 Potential impacts on the character of The Nene – Billing Wharf to Woodford Mill LCA 18d would include also changes in views due to the construction processes involved in the build of the marina development throughout the various stages. These activities would contrast with the existing movement within the landscape. Temporary buildings, site facilities, screening, lighting and movement of associated site traffic would form the principal characteristics of change.

6.6 The construction of the proposed development would potentially impact views experienced by the residents of the nearby permanent Traveller site on Station Road, workers, motorists in the vicinity of the site, canal and river users. There would be potential change in views experienced by the visitors to the nature reserve and more distant Public Rights of Way.

- 6.7 During operation, the proposed development would cause localised adverse and temporary impacts on the landscape within the area, including loss of agricultural land to be replaced by the proposed marina development. Potential impacts on the character would derive from the changes in view and movement within the landscape.
- 6.8 The application site does not fall within any designation, it does border with one Site of Special Scientific Interest (SSSI), Upper Nene Valley Gravel Pits approximately 50m east from the application site. This site is a registered Ramsar Site and Special Protection Area, which is likely to experience some temporary effects from the construction activities.
- 6.9 The impact on the local landscape setting would vary with the views to the west along the valley floodplain being open and to the east the dense riparian vegetation would screen much of the activities. Visual receptors to be potentially affected by the construction and operation of the marina would include users of public footpaths to the east and west along the river Nene, the permanent Traveller community on Station Road and the users of the local sports ground.
- 6.10 The visual receptors to be affected during the operation of the proposed development would not change in comparison with the construction phase. Once the development is complete, its static nature, with transient boat traffic, relatively low height and natural enclosure of the site due to surrounding vegetation would have limited visual impact on the relevant receptors.

## **7 Proposed Mitigation and Enhancement**

7.1 The proposed landscape and visual mitigation measures during construction include:

- Where possible, avoidance of security and task lighting during construction, and use of directional lighting to reduce stray upward light and minimise light pollution;
- Retention of the boundary vegetation;
- Fencing off of hedgerows and trees to be retained and their protection according to BS5837:2012; and
- The provision of appropriate stand-offs in order to safeguard perimeter vegetation adjacent to the site, where possible.

7.2 The proposed landscape and visual mitigation measures during operation include:

- Where possible, hedgerow creation and reinforcement to increase low level screening of views from the surrounding countryside; and
- Implementation of landscape strategy, including the retention, protection and additional planting of boundary trees.

## 8 Assessment of Landscape Effects

### Introduction

- 8.1 This section describes the residual landscape effects (following the implementation of the mitigation measures). The assessment of magnitude of impact and the overall significance of effect is provided for the relevant LCA and relevant designations.
- 8.2 Based on the baseline study and the initial assessment of potential impacts, it has been concluded that the proposed development would only impact on The Nene – Billing Wharf to Woodford Mill LCA 18d.
- 8.3 The setting of the site, along the valley floodplain, surrounded by dense riparian vegetation, areas of semi ancient broad leaf woodland, combine with the distance relative to other Landscape Character Areas to prevent any impact.

### Effects on Local Landscape Character

- 8.4 The proposed development would not significantly affect any of the key characteristics of the local Landscape Character Area The Nene – Billing Wharf to Woodford Mill LCA 18d.
- 8.5 During construction, the loss of arable land and some vegetation would have an adverse effect. There would be no loss of other landscape features, hedgerows or trees. The construction processes, in particular the excavation, would involve significant plant machinery and movement of vehicles to and from the site. Causing an adverse impact on landscape character, this temporary change would last for a limited time (up to 1 year) and the visibility of the construction would be limited within the study area. The construction of the proposed marina would alter the local landscape features, but not character, reflecting on a larger scale, existing features and movement within the study area.
- 8.6 During operation, the proposed marina would create a new local feature along the River Nene, replacing the arable land within the application site with a marina and associated infrastructure. The proposed mitigation measures along the site's boundary would partially screen this low level development and the effect on aesthetic and perceptual aspect of the local landscape would be low.
- 8.7 The magnitude of landscape effect on the landscape character and features of this area is assessed as being medium adverse and temporary during construction, and low adverse and permanent on completion.
- 8.8 The resulting significance of landscape effect is assessed as being moderate adverse (not significant) and temporary during construction, and minor adverse (not significant) on completion.

### Effect on Designated Areas

- 8.9 The proposed development would not have any physical landscape impact on any nature conservation or heritage designation within the LVIA study area. Although

some limited visual impact would occur in localised areas, none of the nature and heritage designations would be affected and there would be no significant change in views from these areas.

- 8.10 The only designated areas to be impacted upon the proposed development would be Open Countryside (covering the application site) and Site of Nature Conservation Value (in the vicinity of the application site). Due to the relatively localised impact on these areas, small loss of valuable landscape features and limited impact on views from these areas, the resulting significance of residual effect is assessed as being minor adverse (not significant) and temporary during construction, and negligible adverse (not significant) on completion.

## 9 Assessment of Visual Effects

### Introduction

- 9.1 This section describes the residual visual effects (following the implementation of the mitigation measures). The assessment of magnitude of effect and the overall significance of visual effect is provided for the relevant viewpoints representing receptor groups.

### Selected viewpoints

- 9.2 Following the implementation of mitigation measures, there would be effects on receptors represented by Viewpoints 1, 2, 3, 4, 7 and 10, which include users of the surrounding PRow and a limited number of local residents. The proposed development would not be visible from any other viewpoint identified in the visual baseline section due to the topographic nature of the surrounding landscape and surrounding vegetation. Despite the scale of the development, the relatively low height (10m maximum) combined with intervening vegetation would prevent views other than those identified. Therefore there would be no effect on receptors represented by Viewpoints 5, 6, 8, 9, 11 and 12.

#### *Viewpoint 1*

- 9.3 During construction, some activities within the site would be visible from this viewpoint due to its close proximity to the site and would contrast with the existing rural landscape. The degree of visibility will alter through the seasons and during summer months site activities will be heavily screened. In addition, the construction works would generate a temporary increase in movement of associated site traffic. The duration of the impact would be medium term – up to 1 year.
- 9.4 On completion, the view would slightly change with the inclusion of the permanent development. Re-established hedgerow, once mature, would create a soft edge to the development and would restrict views of the proposed development. Temporary and permanent lighting would impact during construction and operation. The increase in boat and vehicle traffic would be long term (10 years plus). The duration of some impacts would be permanent, however, elements such as lighting and movement of vehicles and boats can be controlled.
- 9.5 The magnitude of effect on receptors at this viewpoint is assessed as being low adverse and temporary during construction and negligible adverse and permanent on completion.

#### *Viewpoint 2*

- 9.6 During construction, most activities within the site would be visible from this viewpoint due to the location and close proximity to the site and would contrast with the existing setting. Due to the scale of the development the vegetation on the eastern boundary would only provide partial screening of site activities. In addition, the construction works would generate a temporary increase in movement of associated site traffic. The duration of the impact would be medium term – up to 1

year.

- 9.7 On completion, the view would change with the permanent inclusion of the development. Hedgerow and tree planting once mature, would create a soft edge to the development as well as partially screen views. Temporary and permanent lighting would impact during construction and operation. The increase in boat and vehicle traffic would be long term (10 years plus). The duration of some impacts would be permanent however elements such as lighting and the movement of vehicles and boats can be controlled.
- 9.8 The magnitude of effect on receptors at this viewpoint is assessed as being high adverse and temporary during construction and medium adverse and permanent on completion.

### ***Viewpoint 3***

- 9.9 During construction, most activities within the site would be visible from this viewpoint due to the location on the open southern boundary edge of the application site, along the bank of the River Nene. This would contrast with the existing setting; in addition, the construction works would generate a temporary increase in movement of associated site traffic. The duration of the impact would be medium term - up to 1 year.
- 9.10 On completion, the view would be distinctly altered with the prominent inclusion of the proposed development. The development would change the context of the setting but would not impact on the existing wider view. Temporary and permanent lighting would impact during construction and operation. The increase in boat and vehicle traffic would be long term (10 years plus). The duration of some impacts would be permanent however elements such as lighting and the movement of vehicles and boats can be controlled.
- 9.11 The magnitude of effect on receptors at this viewpoint is assessed as being high adverse and temporary during construction and high adverse and permanent on completion.

### ***Viewpoint 4***

- 9.12 During construction, partial activities within the site may be visible from this viewpoint, especially during the months where the vegetation is without leaf. The close proximity and scale of development might provide glimpsed views of some of the larger plant machinery. There would be very little effect on the current setting or alteration to its character. The duration of the impact would be medium term – up to 1 year.
- 9.13 On completion, the view would undergo a negligible alteration during the months of no leaf, during the summer the site will be screened by the intervening dense vegetation. Temporary and permanent lighting would impact during construction and operation, however, the impact can be controlled.
- 9.14 The magnitude of effect on receptors at this viewpoint is assessed as being negligible adverse and temporary during construction and negligible adverse and

permanent on completion.

### ***Viewpoint 7***

- 9.15 During construction, partial activities within the site would be visible from this viewpoint due to its location, elevation and gaps in view above the vegetation. Despite the distance, the scale of development would generate partial views, although it would not affect the character of the setting due to the prominence of the wider view. The duration of the impact would be medium term – up to 1 year.
- 9.16 On completion, the view would undergo a negligible alteration due to the scale of the development. The elevated position would provide partial views even after any planting as mitigation. Temporary and permanent lighting would partially impact during construction and operation, although the distance will negate the impact. The duration of some impacts would be permanent however elements such as lighting can be controlled.
- 9.17 The magnitude of effect on receptors at this viewpoint is assessed as being low adverse and temporary during construction and negligible adverse and permanent on completion.

### ***Viewpoint 10***

- 9.18 During construction, partial activities within the site would be visible from this viewpoint due to its location, elevation and gaps in view above the vegetation. Despite the distance, the scale of development would generate partial views, although it would not affect the character of the setting due to the prominence of the wider view. The duration of the impact would be medium term – up to 1 year.
- 9.19 On completion, the view would undergo a small alteration due to the scale of the development. The elevated position would provide partial views even after any planting as mitigation. Temporary and permanent lighting would partially impact during construction and operation, although the distance will negate the impact. The duration of some impacts would be permanent however elements such as lighting can be controlled.
- 9.20 The magnitude of effect on receptors at this viewpoint is assessed as being low adverse and temporary during construction and negligible adverse and permanent on completion.

## **Significance of Residual Visual Impacts**

- 9.21 Table 2 shows the sensitivity of receptor and the magnitude of impact predicted for each viewpoint, and the resultant significance and nature of the residual visual effects.

**Table 2 Summary of Residual Visual Significance of Visual Effects**

Viewpoint	Sensitivity	Magnitude of Change	Significance and Nature of Residual Impact
1	High	Construction: low (adverse, temporary) Completion: negligible (adverse, permanent)	Construction: moderate (adverse, temporary), <b>not significant</b> Completion: negligible (adverse, permanent), <b>not significant</b>
2	Medium	Construction: high (adverse, temporary) Completion: medium (adverse, permanent)	Construction: major (adverse, temporary), <b>significant</b> Completion: moderate (adverse, permanent), <b>not significant</b>
3	Medium	Construction: high (adverse, temporary) Completion: high (adverse, permanent)	Construction: major (adverse, temporary), <b>significant</b> Completion: major (adverse, permanent), <b>significant</b>
4	Medium	Construction: negligible (adverse, temporary) Completion: negligible (adverse, permanent)	Construction: negligible (adverse, temporary), <b>not significant</b> Completion: negligible, (adverse, permanent), <b>not significant</b>
5	High	No effect	No effect
6	Medium	No effect	No effect
7	High	Construction: low (adverse, temporary) Completion: negligible (adverse, permanent)	Construction: moderate (adverse, temporary), <b>not significant</b> Completion: negligible (adverse, permanent) <b>not significant</b>
8	High	No effect	No effect
9	High	No effect	No effect
10	High	Construction: low (adverse, temporary) Completion: negligible (adverse, permanent)	Construction: moderate (adverse/temporary) <b>not significant</b> Completion: negligible (adverse, permanent) <b>not significant</b>
11	Medium	No effect	No effect
12	High	No effect	No effect

## 10 Cumulative Effects

- 10.1 Three sites Mineral and Waste extraction sites fall within the study area:
- MA12 Earls Barton Quarry Plant;
  - MA5 Earls Barton West Extension; and
  - MA6 Wollaston West.
- 10.2 MA5 Earls Barton West Extension incorporates the application site and areas on the immediate boundary. The remaining sites listed within the MWDF fall outside of the LVIA study area and therefore have not been considered within this document.
- 10.3 Due to the scale of works at MA12 and MA6 and the general extraction and construction processes for the proposed development, there may be an adverse impact on the heritage assets or other designations within the study area. However, the inter-visibility between the sites and the application site is very low and therefore their combined effects would not alter the individual residual effects on the landscape or the character.
- 10.4 The combined potential effect of the proposed development and the Mineral and Waste extraction sites within the study area during construction and upon completion would be significantly reduced by the surrounding dense riparian vegetation and relatively flat river valley floor. The low inter-visibility would see the greatest impact occur on the receptors within the application site and its environs, with open views across the flat agricultural fields to the west along the River Nene. The impact of any future extraction activities cannot be evaluated accurately until specific planning applications have been submitted. It is assumed, however, that the allocated land for Earls Barton West Extension which incorporates the site would have a higher degree of visual impact. This impact would not increase in combination with the Earls Barton Quarry site, or Wollaston West site to the west due to the intervening landscape elements limiting the possibility of views.
- 10.5 Similarly, distance, topography and the intervening vegetation would prevent a greater combined visual impact on the heritage assets identified within the supporting report. There would be no increased level of residual effects when viewed in combination with the allocated mineral and Waste extraction sites.

## 11 Summary and Conclusions

### Introduction

- 11.1 A Landscape and Visual Impact Assessment of the proposed development has been completed in accordance with accepted guidance.
- 11.2 An assessment of landscape and visual components of the application site and the wider LVIA study area was undertaken through desktop and field study. This identified the main landscape character areas, types and visual receptors, and resulted in a baseline appraisal in the context of which landscape and visual impacts could be assessed.
- 11.3 The main landscape and visual implications of the proposed development and the potential impacts were identified and mitigation developed to minimise these impacts, where possible. Comparing the sensitivity of each receptor to the magnitude of predicted impact enabled the significance of the residual impacts to be assessed.

### Landscape Assessment

- 11.4 The proposed development is located within the National Character Area 89 Northampton Vale, Landscape Character Type Broad River Valley Floodplain and Landscape Character Area - The Nene – Billing Wharf to Woodford Mill LCA 18d. There are a number of nature and heritage designations within the LVIA study area, all of which are outside the application site boundary.
- 11.5 The residual landscape effects from the proposed development are very localised in scale and restricted to the agricultural land within the site and its immediate surroundings. The construction and operation of the proposed development would cause some adverse effects on the landscape character and setting, however, those effects would not be significant. The alterations would reflect features that already exist within the study area, but on a larger scale. In the context of the overall study area, the impact – although adverse – would be relatively low. The significance of landscape effect has been assessed as being **moderate adverse (not significant)** and temporary during construction, and **minor adverse (not significant)** on completion. Effects on designated areas would be negligible (**not significant**).

### Visual Assessment

- 11.6 Twelve viewpoints have been selected to represent the overall visibility and various types of views for the surrounding receptors. Following the implementation of mitigation measures, there would be effects on receptors represented by Viewpoints 1, 2, 3, 4, 7 and 10. The proposed development would not be visible from any other viewpoint identified in the visual baseline section due to landform, existing vegetation and built form around the application site. The development would not be distinguishable in the long distance due to the nature and low height of the development and its scale on relation to the wider landscape. Therefore there would be no impact on receptors represented by Viewpoints 5, 6, 8, 9, 11 and

12.

- 11.7 The application site has very limited visibility in the surrounding landscape. The only receptors that would experience **moderate to major** (significant) adverse change in views would be users of PRow in the immediate vicinity of the site, to the south, west and east and the users of the River Nene, represented by Viewpoints 1, 2, and 3. Other nearby receptors, such as residents of the permanent Traveller site on Station Road and nearby settlement edges would **negligible/minor** adverse change in views. Due to the nature of the proposed development, its relatively low height, existing and proposed screening around its boundary within the flat landscape, the vast majority of people within the study area would remain unaffected.
- 11.8 The majority of visual effects due to the proposed development would be **not significant**.

### Cumulative Assessment

- 11.9 The combined effect of the proposed development and the Mineral and Waste extraction sites within the study area during construction and upon completion would not increase the assessed residual effects. The only potential increase in landscape and visual impact would potentially be to the combination of the Earls Barton Extension West allocation which incorporates the application site.
- 11.10 The scale of activity could vary significantly from the proportion of land allocated within the Development Plan Document. The low inter-visibility negates the overall impact as well. The potential combined visual effects of the proposed development and MA5, MA6 and MA12 allocations would be **minor/moderate (not significant)**.

## 12 References

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## A Planning Policy – Relevant Citations

<b>National Planning Policy Framework (2012)</b>	
<b>Core Planning Principles</b>	<p>“...planning should:</p> <ul style="list-style-type: none"> <li>• Be genuinely plan-led. Plans should be up to date and be based on joint working with local people, to provide a practical framework to enable predictable and efficient decisions.</li> <li>• Not be just about scrutiny but be a creative exercise</li> <li>• Proactively drive and support sustainable economic development, to deliver homes, businesses and infrastructure and thriving local places that the country needs.</li> <li>• Always seek to secure high design and amenity standards</li> <li>• Take account of different roles and character of different areas, promoting vitality of main urban areas and protecting green belts around them, recognising the character and beauty of the countryside and supporting thriving rural communities</li> <li>• Support the transition to a low carbon future</li> <li>• Contribute to conserving and enhancing the natural environment and reducing pollution. Land allocations should prefer land of lesser environmental value where consistent with other policies in the Framework</li> <li>• Encourage the effective use of land by reusing land that has been previously developed (brownfield land)</li> <li>• Promote mixed use developments and encourage multiple benefits from use of land, recognising that some open land can perform many functions (such as wildlife, recreation, flood risk mitigation etc)</li> <li>• Conserve heritage assets in a manner appropriate to their significance. Actively manage patterns of growth to make fullest possible use of public transport, walking and cycling and focus significant development in sustainable locations or those that can be made sustainable</li> <li>• Take account of and support local strategies to improve health, social and cultural wellbeing for all.”</li> </ul>
<b>Section 7: Requiring good design</b>	<p>“Planning policies and decisions should aim to ensure that developments:</p> <ul style="list-style-type: none"> <li>• will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;</li> <li>• establish a strong sense of place, using streetscapes and buildings to create attractive and comfortable places to live, work and visit;</li> <li>• optimise the potential of the site to accommodate development, create and sustain an appropriate mix of uses (including incorporation of green and other public space as part of developments) and support local facilities and transport networks;</li> <li>• respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation;</li> <li>• create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and</li> <li>• are visually attractive as a result of good architecture and appropriate landscaping.”</li> </ul>
<b>Section 8: Promoting Healthy Communities</b>	<p>“Planning policies and decisions, in turn, should aim to achieve places which promote:</p> <ul style="list-style-type: none"> <li>• opportunities for meetings between members of the community who might not otherwise come into contact with each other, including through mixed-use developments, strong neighbourhood centres and active street frontages which bring together those who work, live and play in the vicinity;</li> <li>• safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and</li> <li>• safe and accessible developments, containing clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas.</li> </ul> <p>Planning policies should protect and enhance public rights of way and access. Local authorities should seek opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.”</p>
<b>Section 11: Conserving and Enhancing the Natural</b>	<p>“The planning system should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> <li>• Protecting and enhancing value landscape, geological conservation interests and soils...</li> <li>• ...Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government’s commitment to halt the overall decline in biodiversity by establishing coherent ecological networks that are more resilient to</li> </ul>

<b>Environment</b>	current and future pressures...”
<b>Section 12: Conserving and Enhancing the Historic Environment</b>	<p>“In determining planning applications, local planning authorities should take account of:</p> <ul style="list-style-type: none"> <li>• the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;</li> <li>• the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and</li> <li>• the desirability of new development making a positive contribution to local character and distinctiveness.”</li> </ul>
<b>LDF - North Northamptonshire Core Spatial Strategy (2008)</b>	
<b>Objective Two – Environment</b>	<p>“Enhance and manage the built and natural resources of North Northamptonshire in a sustainable and integrated manner and in the context of major growth and the challenges of climate change. To bring about a step change in biodiversity management and a net gain in Green Infrastructure; retaining and enhancing landscape and townscape character and distinctiveness, through the opportunities afforded by development and investment.”</p>
<b>Policy 5: Green Infrastructure</b>	<p>“A net gain in green infrastructure will be sought through the protection and enhancement of assets and the creation of new multi functional areas of green space that promote recreation and tourism, public access, green education, biodiversity, water management, the protection and enhancement of the local landscape and historic assets and mitigation of climate change, along with green economic uses* and sustainable land management. Proposals affecting the Upper Nene Valley Gravel Pits proposed Special Protection Area will need to satisfy the tests of the Habitats Regulations in order to determine site specific impacts of development and to be able to identify and avoid or mitigate against impacts where identified. Access and recreation in this area will be managed in accordance with advice from Natural England.</p> <p>Sub-Regional Green Infrastructure corridors will connect locations of natural and historic heritage, green space, biodiversity or other environmental interest. They will be safeguarded through:</p> <ol style="list-style-type: none"> <li>a) Not permitting development that compromises their integrity and therefore that of the overall green infrastructure framework;</li> <li>b) Using developer contributions to facilitate improvements to their quality and robustness;</li> <li>c) Investing in enhancement and restoration where the opportunities exist, and the creation of new resources where necessary.</li> </ol> <p>Development will contribute towards the establishment, enhancement or ongoing management of a series of local corridors linking with the sub-regional corridors. Priorities for investment will be those areas where net gains in the range of functions can be improved, particularly those that improve access to the urban core and rural service centres and remedy local deficiencies in open space provision and quality.”</p>
<b>Policy 13: General Sustainable Development Principles</b>	<p>“Development should meet the needs of residents and businesses without compromising the ability of future generations to enjoy the same quality of life that the present generation aspires to. Development should:</p> <p><b>Meet needs</b></p> <ol style="list-style-type: none"> <li>a) Incorporate flexible designs for buildings and their settings, including access to amenity space, enabling them to be adapted to future needs and to take into account the needs of all users;</li> <li>b) Seek to design out antisocial behaviour, crime and reduce the fear of crime by applying the principles of the “Secured by Design” scheme;</li> <li>c) Maintain and improve the provision of accessible local services and community services, whilst focusing uses that attract a lot of visitors within the town centres;</li> <li>d) Have a satisfactory means of access and provide for parking, servicing and manoeuvring in accordance with adopted standards;</li> <li>e) Be designed to take full account of the transport user hierarchy of pedestrian-cyclist-public transport-private vehicle, and incorporate measures to contribute to an overall target of 20% modal shift in developments of over 200 dwellings and elsewhere 5% over the plan period;</li> <li>f) Not lead to the loss of community facilities, unless it can be demonstrated that they are no longer needed by the community they serve and are not needed for any other community use, or that the facility is being relocated and improved to meet the needs of the new and existing community;</li> <li>g) Not lead to the loss of open space or recreation facilities, unless a site of equivalent quality and accessibility can be provided, serviced and made available to the community prior to use of the existing site ceasing.</li> </ol> <p><b>Raise standards</b></p> <ol style="list-style-type: none"> <li>h) Be of a high standard of design, architecture and landscaping, respect and enhance the character of its surroundings and be in accordance with the Environmental Character of the area;</li> </ol>

	<p>i) Create a strong sense of place by strengthening the distinctive historic and cultural qualities and townscape of the towns and villages through its design, landscaping and use of public art;</p> <p>j) Be designed to promote healthier lifestyles and for people to be active outside their homes and places of work;</p> <p>k) Allow for travel to home, shops, work and school on foot and by cycle and public transport.</p> <p><b>Protect assets</b></p> <p>l) Not result in an unacceptable impact on the amenities of neighbouring properties or the wider area, by reason of noise, vibration, smell, light or other pollution, loss of light or overlooking;</p> <p>m) Be constructed and operated using a minimum amount of non-renewable resources including where possible the reuse of existing structures and materials;</p> <p>n) Not have an adverse impact on the highway network and will not prejudice highway safety;</p> <p>o) Conserve and enhance the landscape character, historic landscape designated built environmental assets and their settings, and biodiversity of the environment making reference to the Environmental Character Assessment and Green Infrastructure Strategy;</p> <p>p) Not sterilise known mineral reserves or degrade soil quality;</p> <p>q) Not cause a risk to (and where possible enhance) the quality of the underlying groundwater or surface water, or increase the risk of flooding on the site or elsewhere, and where possible incorporate Sustainable Drainage Systems (SuDS) and lead to a reduction in flood risk.”</p>
<b>Wellingborough Local Plan (Policies saved in 2007)</b>	
<b>Policy G6 Open Countryside</b>	<p>“Development in the open countryside will not be granted planning permission unless:</p> <ul style="list-style-type: none"> <li>• It cannot be accommodated other than in the open countryside;</li> <li>• It involves no more than a limited number of buildings or structures and these are small scale;</li> <li>• It includes landscape screening, as appropriate, and all buildings and structures are designed, sited and of materials to minimise adverse impact upon the intrinsic character of the countryside;</li> <li>• It will neither individually or cumulatively with existing or proposed development, result in a local proliferation of new buildings or structures;</li> <li>• When it involves a use which is principally to serve the town, it is located in immediate proximity to existing or proposed urban development; and</li> <li>• It will not result in the urban growth of Northampton to its east or Wellingborough to its west.”</li> </ul>
<b>Policy G18 Natural Environment</b>	<p>“Planning permission will not be given for development which would adversely affect a site designated as a ‘Site of Nature Conservation Value’ on the Proposals Map, except where there is no suitable alternative site for the development and the proposal includes satisfactory mitigation measures to reduce its impact upon the special interest of the site.”</p>

## B Methodology

### Guidance

- 1.1 The Landscape and Visual Impact Assessment (LVIA) and supporting studies and surveys were conducted in accordance with the principles set out by *Landscape Character Assessment Guidance for England and Scotland* (CA and SNH, 2002) and *Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> Edition* (LI and IEMA, 2013).
- 1.2 Other guidance with regard to developments in the landscape that has informed the LVIA includes; *Hedgerow Regulations* (UK Parliament, 1997) and *Lighting in the Countryside: Towards Good Practice* (DCLG, 1997).
- 1.3 Viewpoint photographs have been presented in accordance with the LI's Advice Note 01/11 *Photography and Photomontage in Landscape and Visual Impact Assessment* (LI, 2011)

### Scope of the Landscape and Visual Assessment

- 1.4 The LVIA considers the predicted effects of development on landscape resources (both features and character) and on people's visual amenity.
- 1.5 Landscape and visual assessments are two separate but interlinked processes that are undertaken in parallel. The assessments are informed by a combination of desk and site based appraisal techniques and professional judgements.
- 1.6 The landscape assessment considers the effects of the proposed development on the physical landscape, which may give rise to changes in its character, and how this is experienced; separately considering the effects of development on:
  - Landscape character areas (area with recognisable, consistent pattern of landscape elements identified at different scales);
  - Designated landscape resources (areas of landscape designated and protected under national or local policy).
- 1.7 The visual assessment considers the potential changes that would occur to available views in a landscape as a result of the development proposal, the resultant effect on visual amenity and people's responses to the changes.
- 1.8 The LVIA comprises, firstly the identification, understanding and description of the existing landscape and visual baseline conditions (landscape receptors and groups of viewers likely to be impacted by the proposed development within a defined study area) and secondly the identification and description of the impacts arising from the development on the landscape and the visual receptors.
- 1.9 The assessment examines both construction phase impacts and operational phase impacts. The impacts are assessed based on professional judgements and an understanding of the construction and operation phases which are summarised in the LVIA and include any proposed landscape and visual mitigation works.

### Stages in Landscape and Visual Impact Assessment

- 1.10 The LVIA process comprises the following stages:
  - Baseline assessment: record and analyse the existing nature and value of the landscape character and features, and visual amenity of the study area through desk and field based appraisal;
  - Description of the nature, forms and features of the development including any

constraints and opportunities;

- Assessment of the sensitivity of the existing landscape and identified visual receptors to change and the magnitude of landscape and visual change likely to result from implementation of the proposed development;
- Identification of potential landscape and visual impacts due to the proposed development;
- Identification of mitigation measures appropriate to the development and its landscape context;
- Assessment of the significance of the residual effects on landscape and visual resource, taking into account appropriate mitigation.

1.11 The assessment process is iterative; the analysis of the baseline conditions and evaluation of the potential effects resulting from a development informs the evolution of the proposed development. It is, therefore, important to take into consideration the mitigation that is inherent or proposed as part of the development in order to assess the residual effects and their significance.

1.12 The assessment process is recorded in two principal stages: a baseline study followed by the impact assessment. The baseline assessment ascertains the relative importance of the landscape elements and visual receptors; identifying those potentially subject to a significant effect, to be considered in detail at the impact assessment stage.

### Study Area

1.13 Published guidance provides recommendations on the extent of the Zone of Theoretical Visibility (ZTV) that should be produced to assess the area that would potentially experience significant visual effects.

1.14 The purpose of the LVIA is to identify significant landscape and visual effects. It is, therefore, reasonable to limit the study area in various respects to meet the requirements of the specific project and its landscape context and to reflect the likelihood of significant effects arising over very long distances. It is also important that the more significant effects occurring over shorter distances are given appropriate emphasis. This report has adopted the following approach:

- A ZTV has been initially prepared up to 15km radius from the centre of the application site, with a maximum development height of 10m to take account of the worst case scenario height and locate the areas of theoretical visibility of the proposed development (not restricted by landform);
- Following further desktop study, site visits and the identification of sensitive receptors likely to be impacted upon by the proposed development, the LVIA study area has been defined as approximately 4km from the centre of the application site in order to ensure an adequate focus on potentially significant effects;

1.15 The LVIA focusses on potentially significant landscape and visual effects likely to occur within the localised study area. This is considered appropriate in the undulating landscape context, where the combination of the topography with the vegetative land cover would restrict significant landscape and visual effects over very long distances.

### Computer Based Visibility Analysis

#### *Zone of Theoretical Visibility*

1.16 In order to identify landscape resources and visual receptors within the study area that may be affected by a development, a ZTV plan is produced to illustrate the worst case extent of the potential visibility of the proposed development. The ZTV identifies the maximum area

over which it is theoretically possible to see some part of the proposed development, but does not take account of screening that may result from vegetation, localised variations in topography and built form. The ZTV is created using a terrain model, which is based on OS data at 1:25,000 scale with contours at 10m intervals.

- 1.17 It should be noted that ZTVs are used as a working tool to inform the assessment and do not convey the nature or magnitude of visual effects. The actual visual effects of the proposed development are assessed through a more detailed analysis of specific viewpoints, based on field survey observations. In combination with a site visit, this information enables the identification of a provisional list of viewpoints, and allows the determining authority and consultees to judge how representative these are and whether they include particularly sensitive vantage points.

### Landscape Assessment

- 1.18 The Countryside Agency guidelines (CA and SNH, 2002) make a distinction between the characterisation process and the judgement-making process. The baseline section of the report deals predominantly with the characterisation process, in which the attributes of the landscape are described.
- 1.19 In order to be effective, this LVIA needs to consider landscape resource within the LVIA study area at an appropriate level of detail. Initially, a desktop study was undertaken in order to identify any existing landscape character assessments that describe landscape designations and character areas within the LVIA study area. Following this desk based analysis, site visits were carried out to verify the existing landscape characterisation and identify and assess the physical components and structure of the landscape within the application site and its surroundings.
- 1.20 The baseline divides the application site and surroundings into a series of landscape character areas, which are then brought forward for the assessment, if a potential for effect to the character is identified.

### Landscape Sensitivity

- 1.21 Landscape is a combination of both cultural and physical components that give rise to patterns that are distinctive to particular localities and help to define a 'sense of place'. Landscape character is defined by the interaction of influences and components such as landform, hydrology, vegetation, landcover, land use pattern and cultural features and associations, and their relationship with the surroundings.
- 1.22 The sensitivity of landscape receptors is established by making judgments on their susceptibility to the type of change or development proposed and the value attached to the landscape. This assessment of value is made based on the following factors.
- The quality placed on the landscape, including the scenic quality;
  - The presence of rare elements or features, or rare landscape character types;
  - Whether the landscape contains a particular character and/or features or elements considered to be particularly important examples;
  - The presence of nature, historical or cultural features of interest;
  - Evidence that the landscape is important for recreational users;
  - Perceptual aspects, such as tranquillity or wildness;
  - Associations of the landscape with particular people in history (such as artists or writers), or historical events, that contribute to the perception of natural beauty.
- 1.23 The sensitivity of a landscape is not absolute and will vary according to its key characteristics and the values placed upon it.

- 1.24 It is important to appreciate the key characteristics of the landscape of the application site and surrounding study area, in order to understand local landscape variations and if the landscape of the application site fits with the description of the LCT/LCA that it is within.
- 1.25 The attributes of the landscape should be considered with regard to their sensitivity to the proposed development. Table B-1 provides a list of key characteristics and attributes that indicate higher or lower sensitivity to change brought about by the proposed development. The table is not a prescriptive tool as the list of key landscape characteristics and attributes is not exhaustive. The table is used as a guide to inform the overall assessment of landscape sensitivity; the overall assessment is based on professional judgement through interpretation of the key landscape characteristics.

**Table B-1: Landscape Character Sensitivity**

<b>Key Characteristics</b>	<b>Attributes indicating higher sensitivity to the proposed development</b>	<b>←----→</b>	<b>Attributes indicating lower sensitivity to the proposed development</b>
<b>Scale and enclosure</b>	Intimate, small scale landform and features; enclosed with narrow views; sheltered	←----→	Open, large scale landform and features, with broad views
<b>Landform: form and line</b>	Dramatic, rugged landform; undulating and steeper topography; vertical elements; straight lines	←----→	Smooth, uniform landform; flat with horizontal elements; sinuous lines
<b>Landcover: pattern, texture and colour</b>	Simple; regular patterns; uncluttered; sweeping lines; consistent land cover; smooth texture; with simple monochrome colours	←----→	Complex; irregular / random pattern; rough texture; variety of colour and features
<b>Manmade influence</b>	Landscape with natural features; absence of manmade elements; limited to traditional / historic settlements, buildings and structures such as church towers / steeples	←----→	Engineered forms / pattern; frequent presence of manmade elements such as utility infrastructure or industrial elements; contemporary structures such as masts, pylons, cranes, wind turbines; commercial forestry; landscapes already affected by imposing built structures
<b>Remoteness and tranquillity</b>	Sense of isolation; peaceful setting; remote and uncluttered; no evident movement	←----→	Busy and noisy; human activity and development; prominent movement
<b>Settlement and population</b>	Populated landscape; dispersed settlements; outward looking settlements; landscape focussed recreational routes and visitor facilities; distinctive settings	←----→	Unpopulated or sparsely populated; concentrated pattern of larger settlements; introspective settlements
<b>Key views</b>	Public viewing locations; higher land overlooking surrounding landscape; focussed, narrow view	←----→	Inaccessible or industrial setting; flatter, enclosed land with few views out; ranging views containing several elements
<b>Diversity</b>	Uniform landscape; few features and elements; little variety of land use; compatible features in harmonious landscape	←----→	Complex landscape; wide variety of features and elements; scattered manmade interventions; wide variety of land uses; incongruous features

1.26 The consideration of value of the landscape receptor combined with susceptibility to the type of change arising from the proposal, allows for assessment of sensitivity of the landscape receptor. The sensitivity of landscape receptors is categorised as **high, medium or low**; the criteria for each category is outlined in Table B-2 below.

**Table B-2: Sensitivity of Landscape Receptors**

Receptor sensitivity	Typical criteria
<b>High</b>	<p>A landscape of particularly distinctive character and high or exceptional scenic quality. Strong representation of the typical landscape character type.</p> <p>Intact landscape with excellent condition of elements and features. Presence of rare features in the landscape.</p> <p>National and regionally designated landscape for its scenic quality and character, such as an AONB or National Park.</p> <p>High recreational value with cultural and historical associations.</p> <p>Susceptibility to changes arising from the proposal.</p>
<b>Medium</b>	<p>A landscape of moderate distinctive character and scenic quality. Typical landscape character type is apparent.</p> <p>Relatively intact landscape with occasional features of interest. Locally designated for its quality and character.</p> <p>Receptor of higher value but lower susceptibility to the type of change or development, or vice versa.</p>
<b>Low</b>	<p>A landscape of low or no distinctive character or scenic quality. Also landscape that is damaged, neglected or of poor character and lacking scenic quality.</p> <p>Landscape has become intact with occasional elements and features of interest. Not subject to any form of landscape designation.</p> <p>Receptor of low value and low susceptibility to the type of change arising from the proposal.</p>

***Magnitude of Landscape Change***

1.27 Once the sensitivity of the landscape receptors has been determined, the effect that the proposed development will have on the landscape resource can be assessed.

1.28 The magnitude of landscape change effect from the proposed development on landscape character or designations is appraised, taking into account each phase (construction and completion) of the proposed development and any inherent / proposed mitigation. The assessment of the magnitude of effect takes into account the following factors:

- The distance of the landscape receptor from the proposed development;
- The degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones, for example removal of hedges may change the small-scale, intimate landscape into a large-scale, open one, or introduction of new buildings or tall structures that may alter open skylines;
- The extent of existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape;
- The scale of overall predicted change to character;

- The timescale or phasing of the construction stages;
- Whether the landscape change would be reversible or not.

1.29 The magnitude of effect is categorised as **high, medium, low** or **negligible**; the criteria for each magnitude is outlined in Table B-3 below.

**Table B-3: Magnitude of Landscape Effects**

Magnitude of Effect	Description
<b>High</b>	<p>The proposed development would cause a large, irreversible change to the existing landscape for a long time or permanently.</p> <p>Impact upon landscape features of international and national importance that would change the key characteristics of that landscape.</p> <p>Long-term or permanent change to existing landscape conditions</p>
<b>Medium</b>	<p>The proposed development would cause a noticeable change to the existing landscape, however, only few elements and features that contribute to the overall character would be affected.</p> <p>Medium or short term change of landscape conditions.</p> <p>Moderate alteration of the individual components of the landscape leading to small change in aesthetic and perceptual aspects of the landscape.</p>
<b>Low</b>	<p>The proposed development would cause a small impact / change and would affect relatively few receptors.</p> <p>Temporary and reversible change in landscape conditions.</p> <p>The key characteristics of landscape contributing to its character would not be significantly affected.</p>
<b>Negligible</b>	<p>The proposed development is appropriate in its context or barely perceptible. It may be difficult to differentiate from its surroundings and has very little or no impact on receptors compared to the baseline situation.</p> <p>No key characteristics of landscape contributing to its character would be affected.</p>

## Visual Assessment

1.30 Following desk studies and site visits a range of visual receptors (people) that have a potential to be affected by the proposed development are identified. They may include local residents, users of footpaths and roads (motorists, cyclists), and users of recreational facilities, visitors to popular tourist attractions or people at their place of work.

1.31 Potential viewpoints and areas for investigation are then identified following an initial study of OS maps, ZTV analysis and, most importantly, site visits. Viewpoints and areas of further investigation are identified based on the following criteria:

- Distance from the application site to the receptor;
- The proportion of the application site / proposed development visible, as well as the absolute visibility of the proposed development;
- The height of the proposed development relative to the receptor with reference also to the scale of other features in the view;
- The number and character of elements which would be lost from or added to the

view;

- High concentrations of viewers, such as settlements, local recreational facilities, public footpaths and attractions etc;
- Views illustrating the visual character of the surrounding area; and
- Areas identified as having a high potential for visual impact.

1.32 A site visit was carried out on the 8<sup>th</sup> August 2012 to assess general landscape character and views experienced by different types of visual receptors during the day. Photographs were taken to represent the surrounding visual receptors.

1.33 Following desktop research to understand the surrounding potentially sensitive receptors, a selection of viewpoints was made to represent key relevant visual receptor types likely to be affected by the proposed development, such as residents of nearby properties, users of Public Rights of Way (PRoW), pedestrians or road users, to enable the assessment of the proposed change in views and the significance of effect on these receptors.

1.34 Photographs illustrating views from a series of representative viewpoints were taken using a Canon EOS D500 digital SLR camera set to the 35mm focal length. The photographs have been reproduced in a series of viewpoint sheets with annotation and details of the image recorded. Where viewpoints consisted of more than one frame, the relevant frames were merged together using Photoshop CS6.

### ***Visual Receptors***

1.35 Visual receptors are groups of people, which include the public or community at large, residents, visitors and other groups of views. Study of OS data, production of a ZTV and consultation with the LPA are used to identify viewpoints for assessment that best represent the visual receptors likely to experience an impact from the proposed development.

1.36 Representative viewpoints are validated through site visits, resulting in the repositioning or exclusion of some of the preliminary viewpoints, due to lack of visibility towards the application site.

### ***Visual Sensitivity Criteria***

1.37 Sensitivity of visual receptors (people), whose groups are represented by a selection of viewpoints, depends on the susceptibility of these receptors to change in views and the value attached to views experienced by these receptors.

1.38 The susceptibility of different visual receptors to changes in views and visual amenity is judged based on:

- The occupation or activity of people experiencing the view at particular locations; and
- The extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.

1.39 Judgements about the value of views take account of:

- Recognition of the value attached to particular views, for example in relation to heritage/cultural assets, or through planning designations;
- Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and

1.40 The sensitivity of visual receptors is categorised as high, medium or low, as defined in Table B-4.

**Table B-4: Criteria for assessing sensitivity of visual receptors**

Visual receptor sensitivity	Typical criteria
<b>High</b>	People with a particular interest in their surroundings or with prolonged viewing opportunities, examples include: <ul style="list-style-type: none"> <li>- Promoted viewpoints (often with interpretation boards);</li> <li>- Tourist and visitor destinations including recreational or heritage sites (ornamental parks and open spaces);</li> <li>- Recreational hilltops and peaks;</li> <li>- Occupiers of residential properties;</li> <li>- People using important recreational facilities such as National Trails and National Cycle Routes;</li> <li>- Users of PRow or viewpoints in nationally or locally designated landscapes.</li> </ul>
<b>Medium</b>	People with a general interest in their surroundings or with some viewing opportunities, examples include: <ul style="list-style-type: none"> <li>- Users of public open spaces and outdoor recreational spaces;</li> <li>- Residential locations with few receptors or restricted views of the site;</li> <li>- Other public routes, and users of PRow;</li> <li>- Local viewpoints.</li> </ul>
<b>Low</b>	People with a limited or passing interest in the surroundings, examples include: <ul style="list-style-type: none"> <li>- More transitory routes, such as other public routes;</li> <li>- Local road network and major highways;</li> <li>- People at their place of work;</li> <li>- Indoor facilities.</li> </ul>

***Magnitude of Visual Effect***

1.41 For each of the identified viewpoints the potential magnitude of the visual effect (in comparison to the existing ‘baseline’ situation) was assessed, taking into account each phase of the proposed development and any inherent / proposed mitigation. The magnitude of visual effect takes into account the following factors:

- The scale of change to the view with respect to loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the proposed development;
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics;
- The nature of the view of the proposed development, considering the relative amount of time over which it will be experienced and whether views will be full, partial or glimpsed;
- The degree of visual intrusion or obstruction that would occur;
- The distance of the viewpoint from the proposed development;
- The angle of the view in relation to the main activity of the receptor;

- Duration and reversibility of the effect.

1.42 The magnitude of visual effects is categorised as **high, medium, low or negligible**.

**Table B-5: Magnitude of Visual Effects**

Magnitude of Effect	Description
<b>High</b>	Severe change to views. Removal of valuable landscape features / elements that highly contribute to the overall quality and nature of views, a large number of viewers affected over prolonged time. Total change to the character of the surrounding landscape. Large number of viewers affected over a prolonged time.
<b>Medium</b>	Moderate alteration to views. Development affects few features/elements on or adjacent to the application site. Reversible effect affecting only a part of the wider view. Development 'stands out' in the view.
<b>Low</b>	The proposed development would cause a small impact / change and would affect relatively few receptors. Change to views on transitory routes such as infrequently used paths and roads. Small change to more complex views for small number of viewers with no particular focus on the proposed development.
<b>Negligible</b>	The proposed development is appropriate in its context or barely perceptible. It may be difficult to differentiate from its surroundings and has very little or no impact on receptors compared to the baseline situation. It would have no or very minimal effect on features / elements on or adjacent to the application site.

### Nature of Effects

- 1.43 The nature of effects contributes to the assessment of magnitude of landscape and visual effects.
- 1.44 The LVIA considers whether the landscape and visual changes that would arise as a result of the proposed development would be beneficial or adverse. An adverse effect is one that introduces a new, discordant or intrusive element to the landscape or a view. A beneficial effect would be from an overall improvement to the landscape or a view through the removal of existing discordant features and replacement with features of similar scale to those in the surrounding landscape or view, or introduction of high quality features within landscape or a view that would contribute to its overall character.
- 1.45 With regard to the duration of landscape and visual effects, short to medium-term effects are normally considered to be temporary and associated with the construction of the proposed development, and long-term effects are normally associated with a fully occupied and operational scheme. Permanent effects are those which result in an irreversible change to baseline conditions or will last for the foreseeable future.
- 1.46 The duration of landscape and visual effects is typically categorised as follows.
- Long terms – 10 years and beyond;
  - Medium term – 5-10 years;

- Short term – 0-5 years.

1.47 Landscape and visual effects can be direct (effects that are caused by activities which are an integral part of the scheme) or indirect (effects that are due to activities that are not part of the scheme, e.g. regeneration benefits attributable to the scheme).

### Significance of Landscape and Visual Effects

1.48 Assessment of landscape and visual effects refers to the change that is predicted to take place to the existing (baseline) condition of the landscape and views as a result of the proposed development.

1.49 The significance of an effect is broadly determined by assessing the sensitivity to change of the landscape resource and visual receptors against the magnitude of change predicted upon them. The assessment of the effects takes into account mitigation measures implemented as part of the proposed development. Table B-6 is used as a guide only and the assessment of the significance of landscape and visual effects takes into account other modifying factors based on professional judgement. Ultimately a combination of sensitivity and magnitude will give effects which may be major, moderate, minor or negligible

**Table B-6: Significance of the Effect to the landscape resource and visual receptors**

Magnitude of change	Description		
High	Moderate	Major	Major
Medium	Minor	Moderate	Major
Low	Minor	Minor	Moderate
Negligible	Negligible	Negligible	Negligible
	Low	Medium	High
	Receptor Sensitivity		

1.50 The following table provides a brief definition of the key landscape and visual significance criteria.

**Table B-7: Significance Criteria**

Significance	Description
Major	Important or substantial change in landscapes of national, district or local importance, or substantial changes in views experienced by most sensitive visual receptors.
Moderate	Noteworthy or medium change in landscape and visual conditions.
Minor	Inconsiderable or small change in landscape and visual conditions.
Negligible	No discernible change in landscape and visual conditions. No effect or effect which is beneath the level of perception, within normal bounds of variation or within the margin of forecasting error.

1.51 Major effects are usually deemed significant. Effect of medium magnitude on a highly sensitive receptor or effect of high magnitude on receptors of medium sensitivity may also be judged 'significant'. The assessment also considers the nature of the landscape and visual effects as described above.

## C Landscape Character

Countryside Character	
<p><b>National Character Area 89: Northamptonshire Vales</b></p>	<p><b>Key Characteristics</b></p> <ul style="list-style-type: none"> <li>• Gentle clay ridges and valleys with little woodland and strong patterns of Tudor and parliamentary enclosure.</li> <li>• Distinctive river valleys of Soar, Welland and Nene with flat floodplains and gravel terraces.</li> <li>• Large towns of Leicester and Northampton dominate much of the landscape.</li> <li>• Frequent small towns and large villages, often characterised by red brick buildings.</li> <li>• Prominent parks and country houses.</li> <li>• Frequent imposing, spired churches.</li> <li>• Attractive stone buildings in older village centres and eastern towns and villages.</li> <li>• Great diversity of landscape and settlement pattern with many sub units, eg Nene Valley and Welland Valley.</li> </ul> <p><b>Description</b></p> <p>This large, complex and heterogeneous area comprises lowlying clay vales and river valleys extending between wold landscapes and other areas of higher ground, including the area referred to as High Cross Plateau in Warwickshire. In the north, the Leicestershire and South Derbyshire Coalfield and Charnwood rise quite steeply from the lowlying land west of Leicester. To the north-west there is a more gradual transition to the flat, glacial till dominated, edge of the Mease/Sence Lowlands, while to the south of this there is an equally gradual transition to Dunsmore and Feldon. The Vales narrow south eastwards with the Northamptonshire Clay Uplands to the south and High Leicestershire to the north. The Welland valley extends north eastwards as part of the area while, to the south, the Vales sweep between the Northamptonshire Uplands and Rockingham Forest to the Nene Valley, which is sharply defined on its southern bank by the Cambridge and Bedfordshire Claylands.</p> <p>The gently undulating clay vales and ridges which make up much of the area, have a strong pattern of Tudor and parliamentary enclosure, often with low, but well maintained, hedges and variable densities of hedgerow trees. Woodlands are small. They are confined mainly to valley sides areas and to copses and spinneys on the ridges. As a result of this open character, the frequent large settlements can dominate the landscape. Leicester and Northampton are large towns with extensive edges of commercial and retail buildings and out of town development and there are several smaller towns like Market Harborough, Lutterworth, Hinckley and Earl Shilton where the high density of 19th and 20th century red brick houses and urban fringe buildings are prominent. There are also many large villages but the frequent small ones show less 20th century influence. This is particularly true in the east, where an older character of mellow brick, and fine stone churches in some of the most celebrated English stones, is present. Even when the landscape is not influenced by prominent built up edges, settlements are never very far away and the church towers and spires are the most characteristic feature of rural areas.</p> <p>The river valleys of the Soar, Welland and Nene are much larger-scale landforms than the clay vales forming the hinterland of this area. They have wide, flat floodplains on which an older landscape of meadows, willow</p>

	<p>pollards and alders survives. There are frequent settlements, usually on the edges of the valleys just off the gravel terraces. Each valley is very different in character.</p> <p>The Nene has well-defined terraces which are the sites of many ancient settlements and it is fed by numerous tributaries forming side valleys. Much of the floodplain is now dominated by either active gravel working or the lakes formed on former workings and is crossed by willow-lined causeway roads. However, north of Ringstead the landscape is unaffected by the gravel industry and the flood plain has meadows of high nature-conservation interest. Rising out of the floodplain, the land is in both arable and pasture use and there are bluffs on the valley sides which are dominated by the rectilinear pattern of parliamentary enclosure. There are frequent villages, predominantly in local limestone, along the valley and they usually have linear layouts. There is high historic interest at places like Oundle and the often spectacular churches like Fotheringhay. The Welland valley is narrower and more remote, the main industrial influence being the views of Ketton cement works to the north. The scarp at the edge of Rockingham Forest is a dominant feature and the generally open character is punctuated by waterside trees. On the narrow valley bottom, meadows are frequent but there has been much conversion to arable in recent years and the overall character is remote and rural. As in the Nene valley, there are many fine stone buildings with Ketton Stone and ironstone tending to predominate.</p> <p>The Soar valley is dominated by urban development spreading from Leicester. Tree cover is often low and locally negligible and there are large-to medium-size fields. The larger villages,</p> <p>as well as Leicester, dominate this open landscape and features like pylons can be very conspicuous. Further upstream, the hedgerow and hedge cover improves and the urban influence diminishes. In the south, the Ise Valley is in part dominated by the settlements of Wellingborough and Kettering,</p> <p>However, while it is easy to break the area down into its component parts, there are common qualities and features which unify it and which stem from its long occupation, strategic location and natural resources. In a fairly uniform and sometimes rather bland sequence of landforms, individual character often comes from views of the surrounding higher ground. The landscape is rich in attractive individual settlements and buildings of historic interest and there are very few parts where a village is not in view. Parks, waterside trees and meadows are common themes and the extensive settlements reflect prosperity from a variety of sources over many centuries.</p> <p><b>Shaping the Future</b></p> <ul style="list-style-type: none"> <li>• The Nene Valley offers scope to address a full range of broad environmental matters, including the conflict between gravel extraction, development, wildlife conservation and recreation.</li> <li>• Parkland is an important element in the landscape.</li> <li>• The large-scale nature of recent developments should be addressed through equally large-scale landscaping measures.</li> <li>• Many villages would benefit from local design initiatives to ensure that future change is appropriate to local character.</li> <li>• There are many opportunities for the improved management of restored sand and gravel workings and for future restoration to take account of current best practice for nature conservation and the landscape.</li> <li>• The loss of hedgerow trees and the ageing present stock indicate the need for substantial new planting.</li> </ul>
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	<ul style="list-style-type: none"> <li>Over fifty pocket parks have been established in Northampton in partial compensation for the lack of accessible countryside and common land. This approach is important.</li> </ul>
<p><b>National Character Area 91: Yardley-Whittlewood Ridge</b></p>	<p><b>Key Characteristics</b></p> <ul style="list-style-type: none"> <li>Broad plateau with shallow soils elevated above adjacent vales.</li> <li>A strong historic landscape character, largely due to the continued presence of extensive areas of ancient woodland.</li> <li>Mixed land uses of pasture, arable and woodland.</li> <li>Generally medium-sized fields with full hedges and hedgerow trees, mainly oak.</li> <li>Low density of settlement and consequently few local roads; cut through by major north-south canal, rail and road routes.</li> </ul> <p><b>Description</b></p> <p>The Ridge rises steadily up from the Bedfordshire and Cambridgeshire Claylands (which here extend in to north Buckinghamshire) to the south and east. In the north the land drops down to the Nene Valley, the southernmost of the Northamptonshire Vales. Thus, although only reaching elevations of some 150 m in the west and slowly dipping down to 80 m in the east, it is physically distinct from the adjacent low-lying vales and forms a noticeable broad plateau.</p> <p>The area is predominantly agricultural in character, with a mix of arable, mixed and pastoral farming. Pastoral farming is predominant in the west, giving way to a more open, arable landscape as the land dips slightly to the east. However, the thin and variable soils have historically constrained agricultural development so that much of the area is wooded and has been so since at least the 13th century. The landscape elements form simple combinations, of stretches of arable alternating with pasture, with a backdrop of large, dark, woodland blocks. Woods such as Salcey Forest are extensive and have a network of rides and occasional open grasslands contained within the woodland - the 'lawns' which provided hay and pasture for commoners cattle.</p> <p>The woodland blocks are largely oak or mixed with other broadleaves and, in some places, oaks planted in the early 19th century still remain. More recent planting of coniferous species has formed dense plantations and these can create particularly dark and impenetrable backdrops to the local farmland landscape. These dark blocks form striking contrasts with the fresh greens of spring foliage and the rich autumn colours of the deciduous woodland.</p> <p>From the gently undulating plateau top, the land can be seen to slope gently away in most directions with long views over the surrounding vales. This gives a feel of being elevated, of openness and expansiveness. Such views, however, are frequently cut off by the large blocks of woodland which are a constant feature of the plateau top.</p> <p>Its elevation above surrounding land has made it suitable for telecommunications masts and airfields - one of the latter is now the Silverstone race track. The associated activities and facilities for occasional large numbers of visitors as well as other recreational facilities such as golf courses and parks, bring a suburban feel into local landscapes.</p> <p>The few minor roads on the Ridge are bounded by hedges but have wide verges which are often herb-rich. Hedges are generally substantial and species rich and are often filled out with elm suckers. There are plenty of hedgerow trees, mostly oak with some ash. Many of these are mature and stag-headed, although some hedges show several young ash saplings growing up to form potential new hedgerow trees.</p> <p>There are a number of parks in the area which, with their mature parkland trees, avenues and woodland rides, add to the historic feel of the landscape. The Grand Union Canal, running through the valley cut by the river Tove, creates a local landscape of waterways with locks, bridges and</p>

	<p>weirs. The Ridge does have an historic feel to it, in particular in those parts which are contained by the extensive areas of woodland. These contrast with more open plateau areas which can be non-descript - indeed it has been described as a 'flattish, rather dull landscape'.</p> <p><b>Shaping the Future</b></p> <ul style="list-style-type: none"> <li>• The retention of the character and nature-conservation value of the woodlands could be achieved through management, to include replanting oak and replacing introduced species with native species. There is also scope for establishing new and maintaining existing broadleaved woodland on private land.</li> <li>• The possibility of re-creating some aspects of the historic landscape, for instance by restoring 'lawns' which are now arable back to pasture should be considered. Similarly, opportunities exist for the improved management of hedgerows and protection for naturally regenerating hedgerow trees.</li> <li>• Pressures for recreational facilities, such as golf courses and holiday villages, and for farm diversification need to be handled carefully and particular care taken to integrate such schemes into the landscape structure.</li> </ul>
<b>Northamptonshire Current Landscape Character Assessment</b>	
<p><b>Broad River Valley Floodplain Landscape Character Type 18</b></p>	<p><b>Key Characteristics</b></p> <ul style="list-style-type: none"> <li>• Broad, flat and predominantly wide floodplain surrounded by rising landform of adjacent landscape types;</li> <li>• deep, alluvial clay and silt with sand and gravel, masking the underlying geology;</li> <li>• river channel with slow flowing watercourse with limited bank side vegetation in areas;</li> <li>• 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;</li> <li>• limited woodland cover confined to occasional broadleaved copses scattered throughout the floodplain;</li> <li>• hedgerow trees, although infrequent, are an important feature where they do occur, creating localised well treed areas;</li> <li>• hedgerows are generally overgrown and reinforced with post and wire fencing with intermittent sections showing evidence of decline;</li> <li>• 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;</li> <li>• wider settlement pattern of scattered farmsteads and individual dwellings;</li> <li>• urban influences arising from the proximity of large urban areas and associated road infrastructure on the perimeter of some sections of the floodplain;</li> <li>• 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;</li> <li>• 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</li> </ul>

- 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 silty 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.

	<p><b>Hydrology</b></p> <p>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.</p> <p><b>Land Use and Land Cover</b></p> <p>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.</p> <p>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.</p> <p><b>Woodland and Trees</b></p> <p>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.</p> <p><b>Human Influences</b></p> <p><b>Buildings and Settlement</b></p> <p>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.</p> <p>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</p>
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	<p>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.</p> <p><b>Heritage Features</b></p> <p>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.</p> <p><b>Boundaries and Field Patterns</b></p> <p>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 subdivision 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.</p> <p><b>Communications and Infrastructure</b></p> <p>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.</p>
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	<p><b>Recreation</b></p> <p>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.</p> <p><b>Aesthetic and Perceptual Qualities</b></p> <p>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.</p> <p><b>Local Distinctiveness, Landscape Condition and Landscape Change</b></p> <p>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.</p>
<p><b>The Nene – Billing Wharf to Woodford Mill LCA 18d</b></p>	<p>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.</p> <p>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,</p>

	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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