APPENDIX 1

LANDSCAPE & VISUAL IMPACT ASSESSMENT
LANDSCAPE + VISUAL IMPACT ASSESSMENT

LILFORD LODGE MARINA
nr BARNWELL
NORTHAMPTONSHIRE

September 2008
Updated February 2009

for

A E DIJKSTERHUIS
LILFORD LODGE FARM
BARNWELL
NORTHAMPTONSHIRE
PE8 5SA

LANDPLAN ASSOCIATES
chartered landscape architects
Barnwell All Saints
Oundle
Peterborough
PE8 5PW

01832 272969
design@landplan-associates.co.uk
CONTENTS

1 INTRODUCTION
2 POTENTIAL EFFECTS
3 ASSESSMENT METHODOLOGY
4 BASELINE CONDITIONS
5 MITIGATION MEASURES
6 ASSESSMENT OF IMPACTS
7 SUMMARY AND CONCLUSIONS

FIGURES

Figure 1 Location plan
Zone of Theoretical Visibility (ZTV) + Viewpoint locations plan

APPENDICES

Appendix 1 Principal Viewpoint photographs
(shown as existing situation and after development if applicable)

NRG ref.
TL

A view from A605 road 043 862
B A605 entrance to Oundle Town Rowing Club 041 864
C public footpath looking to south-west 038 867
D public footpath looking north 039 859
E public footpath junction with Stoke Doyle Road, looking east 028 868
F Pilton Manor - looking north-east 026 846
G view from R Nene – looking north 034 851
1.0 INTRODUCTION

1.1 Landplan Associates have been appointed to prepare an assessment of the landscape and visual impacts that would result from the proposed development of a riverside marina, to the north-west of Lilford Lodge Farm, off the A605, OS reference TL 035855

Landplan Associates are a Registered Practice of the Landscape Institute, with experience of landscape assessment, landscape design, urban design and landscape management for a broad range of development land uses.

Description of this assessment

1.2 Following this introduction the main body of this assessment is divided into the following sections:

- **Section 2** provides a primary explanation of potential effects.
- **Section 3** sets out the approach and assessment methodology that form the basis of this study.
- **Section 4** sets out the baseline situation by establishing the site’s context and reviewing the landscape and visual qualities of the site and surrounding area.
- **Section 5** confirms the scope of development and describes ways in which the landscape and visual impacts may be mitigated.
- **Section 6** sets out the assessment of landscape and visual impacts of development.
- **Section 7** provides a summary of the assessment findings.

1.3 The site location, the local landscape context of development, landscape components and the assessed ‘Zone of Theoretical Visibility’ (ZTV) of the potential development are shown in Figure 1.

The site context photographic viewpoint photographs are included within Appendix 1. All images are for illustrative purposes only, intending to convey a general impression of potential future development of the study site.

2 POTENTIAL EFFECTS

2.1 Landscape and visual impact assessment seeks to identify the landscape and visual effects that would result from a development. Landscape and visual effects are independent but related issues; landscape effects are changes in the landscape, its character and quality, while visual effects relate to the appearance of these changes and the resultant effect on visual amenity.

2.2 This assessment will therefore seek to identify and evaluate development related changes to the component parts that make up the landscape of the development site, as well as identifying visual receptors (people that have views of the development) and evaluating the change in visual amenity that results from the development.

Visual receptors included are: residents, users of footpaths/bridleways, users of amenity public space/sports grounds, users of public roads and railways, workers/employees and views of or from within valued landscapes

Assessment criteria are used to identify the degree of beneficial or adverse landscape and visual change.
3 ASSESSMENT METHODOLOGY

3.1 This landscape and visual assessment is prepared as supporting data to a proposed planning application and it has been prepared in line with the requirements for Environmental Statements under the 1999 Town and Country Planning Regulations (1). The assessment methods adopted in this study draws upon the ‘Guidelines for Landscape and Visual Impact Assessment’ (GLVIA) and Advice note 01/04 (August 2008), both prepared by the Landscape Institute and the Institute of Environmental Management and Assessment (2), providing ‘best practice’ methodology.

3.2 Field observations

Visual assessment of the site and context was undertaken during August 2008. Weather conditions at the time of the surveys were generally sunny and suitable for assessing all types of view.

Understanding of the site and the local context has been formed by:

- Client project briefing
- Ordnance Survey mapping and air survey photography
- the Local Plan : ‘Rural North, Oundle and Thrapston Plan’ (3)
- any existing or proposed development on this and adjacent sites
- consultation of Northamptonshire County Council’s ‘Environmental Character Assessment’ (4) and the resultant ‘Current Landscape Character Areas Strategy and Guidelines’ (5).
- ‘Nene Valley Strategy – First Draft’ (6)

Following the initial desk study of the above potential primary viewpoints of the site were identified and visited during subsequent fieldwork and assessed for their sensitivity to the proposals. An observer viewpoint of 1.80m above ground level was used in all cases, except where otherwise indicated.

Photographs illustrating views from a selected series of representative viewpoints were taken using a Nikon digital camera with a lens set to a focal length equivalent to a 50mm lens on a 35mm film camera. Panoramic views if used consist of several frames merged using Photoshop software. This software was also used to demonstrate the ‘before’ and ‘after development’ impact impressions shown in the viewpoint photographs (Appendix 1).

All images are for illustrative purposes only, intending to convey a general impression of the proposed development. Photographs can only ever be a two dimensional representation of the scene and is no substitute for the actual visual experience to that which a human observer would receive in the field. Detailed assessment and considered judgment can only be carried out and made on the basis of site inspections in the field.

Consultations

No specific consultations have been undertaken with respect to the landscape and visual aspects of the proposed development, other than reference to planning guidance, and published landscape character assessments.
Technical difficulties

No technical difficulties were encountered in making the assessment. Most principal viewpoints are located on land with public access eg. footpaths, bridleways, roads etc. Access to private properties and land was not obtained when relevant in relation to a number of potential views from private properties within the vicinity of the site.

However it is considered that this has not prevented the assessment of potential landscape and visual impacts or the identification of appropriate mitigation measures.

The assessment approach

3.3 The adopted approach can be summarised in the following work stages, that in turn have determined the layout of the study:

- Definition of the study area.

- Baseline assessment: the assessment of the existing landscape and visual resource within the study area and identification of landscape elements and character types.

- Identification of the development proposals and identification of key sources of likely impacts.

- Description of any mitigation proposals.

- Identification and assessment of the impact the proposed development will have on the existing landscape resource.

- Definition of the visual envelope. Identification and assessment of the impacts the proposed development will have on the visual receptors and visual amenity within the visual envelope.

- Summary of effects.

Notes


6 ‘Nene Valley Strategy- First draft ’- River Nene Regional Park - 2008

Methodology

3.4 Both landscape and visual impacts have been assessed at a local scale for the application site. Potential impacts are considered as follows:

- on immediate completion of works
- at year 15 from completion,

allowing for the establishment of any landscape mitigation measures, if proposed.

3.5 Field assessment was undertaken during August 2008, requiring interpretation of the seasonal variation and the benefit of summer vegetation but allowing for a ‘precautionary principle’ of identifying the ‘worst case’ effect to be applied to the assessment.

Landscape impacts

3.6 Landscape impacts result from changes to actual components of the landscape and/or the character or quality of the landscape. Therefore the landscape impacts are predicted on the basis of the order of change to baseline conditions prevalent at the time of the assessment. The assessment considers impact upon individual landscape features and secondly, considers impact upon local landscape character. As a register of change, impacts can be recorded as either positive or negative changes to the landscape.

3.7 The landscape impacts identified are broadly assessed in terms of Substantial, Moderate and Minor. Moderate and Substantial impacts are considered to require appropriate mitigation.

- **Substantial** impacts may be defined as loss, damage or change of a high to medium magnitude to largely unspoilt or highly sensitive landscape resources.

- **Moderate** impacts may be defined as loss, damage or change of a medium magnitude to landscape resources of medium sensitivity or quality.

- **Minor** impacts may be defined as loss, damage or change of a low magnitude to landscape resources of medium or low sensitivity or quality.

3.8 The criteria used to define the magnitude of change include:

- character and quality of existing landscape and determinants of that character including topography, development pattern, land use management, cultural associations etc.
- key features of the existing landscape
- the nature of predicted impacts including the duration of the change; the spatial extent of change, permanence or reversibility and; whether the impact is of a direct, indirect or secondary nature
- degree of change to key features
- the ability of the landscape to accommodate change
- the significance of change within a local, regional and national context
**Landscape Character**

3.9 Landscape character is determined by a distinct pattern or combination of 'elements' that occur in the landscape. The overall landscape character may result from a combination of 'character areas', which are geographic areas with a distinctive character.

3.10 Unless caused by 'off site' works, direct landscape impacts will be limited to the site itself. However, changes to landscape character may extend beyond the site if changes to the site landscape can be seen to alter the character of a wider area.

**Visual Impacts**

3.11 Visual impacts result from changes to the appearance of the landscape as a result of the development proposals either intruding into, or obstructing existing views, or by their overall impact on visual amenity. The degree of visual impact depends not only on the degree of change brought about by the development but also the sensitivity of the receptors to visual change.

3.12 The criteria used to assess the degree of visual impact are as follows:
- value of existing views
- the degree of change to existing views
- the availability and amenity value of alternative views
- sensitivity of the receptor
- activity of the receptor
- the extent of visibility of the visual change and distance from the receptor
- the period of time for which the view is changed and the period for which the receptor is exposed to the change.

3.13 Receptors vary in their degree of sensitivity to change depending on such factors as proximity, activity and period of time exposed to the change. For example, the permanent views of residents and passive views from footpaths and other public spaces would be considered to be more sensitive than the transient views of motorists or temporary views of nearby workers.

3.14 Visual impacts are broadly assessed as Substantial, Moderate or Minor. Moderate and substantial impacts are considered to be in need of appropriate mitigation.

- **Substantial** impacts may be defined as highly sensitive receptors exposed to intrusion, obstruction or change of a high or medium magnitude for prolonged periods.
- **Moderate** impacts may be defined as the result of moderately sensitive receptors exposed to intrusion, obstruction or change of a medium magnitude.
- **Minor** impacts may be defined as the result of receptors of low sensitivity exposed to intrusion, obstruction or change of a low magnitude for short periods of time.

3.15 Significance thresholds (Substantial, Moderate & Minor) can be determined for landscape or visual impacts from different combinations of sensitivity and magnitude to effect corresponding variation on the examples given. Where appropriate, the threshold descriptions have been combined e.g. 'Moderate -Substantial' to give greater precision to description of impacts.
Impacts may be adjusted up or down according to specific overriding factors and will be noted in the text and will be defined as ‘negligible’ or ‘none’ where there is very limited or no change as a result of the proposals.

3.16 The significance of visual impacts must take into account the nature of the existing view. For example, an existing view may be dominated by existing buildings, or by an attractive area of woodland and, by comparison, the overall visual impact of proposed development might be positive or negative. The amenity value of alternative views will also be taken into account. The following table shows the how the relationship of the impact magnitude (degree of change of the view) combined with the sensitivity of the receptor, can be used to determine the impact significance (significance of the change).

3.17 **Table 1**

Matrix of impact magnitude and sensitivity of receptor to determine impact significance:

<table>
<thead>
<tr>
<th>IMPACT MAGNITUDE</th>
<th>IMPACT SIGNIFICANCE : EFFECT ON PROPOSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBSTANTIAL</td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Moderate/substantial</td>
</tr>
<tr>
<td></td>
<td>Substantial</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>Minor/moderate</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td></td>
<td>Moderate/substantial</td>
</tr>
<tr>
<td>MINOR</td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Minor/moderate</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td>NEGLIGIBLE</td>
<td>Negligible/minor</td>
</tr>
<tr>
<td></td>
<td>Minor</td>
</tr>
<tr>
<td></td>
<td>Minor/moderate</td>
</tr>
<tr>
<td>LOW</td>
<td>MEDIUM</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
</tr>
</tbody>
</table>

3.18 As an initial stage in assessing the visual impacts a ‘Zone of Theoretical Visibility (ZTV)’ has been identified as shown on Figure 1.

The ‘Zone of Theoretical Visibility (ZTV)’ identifies the area from within which all or part of the proposed development site may be seen and therefore the area within which specific visual receptors and degrees of impact have been identified.
4 BASELINE CONDITIONS

Baseline landscape and visual assessment

Identification of study area

4.1 The site is located west off the Thrapston to Peterborough road (A605), upstream of Oundle, west of the village of Barnwell and to the north-east of the village of Pilton. The application site is located within the East Northamptonshire Council area. The area covers approx. 10ha on the east bank of the R.Nene and consists of an area of riverside flood meadow roughly centered on National Grid Reference - TL 5038 2857. The site consists of two former sheep pastures on the right bank of the river. Neither field has been grazed for a number of years and both are now dominated by coarse grasses and sedge species. Ditches have been dug on the fields relatively recently to facilitate drainage. The geological map shows that the two fields are on river gravels.

To the west the site borders onto the R. Nene, with improved grass pasture and arable fields beyond on the opposite river bank. A backwater area leading from the main river enters the site and forms the boundary with a peninsula of land planted with cricket bat willows, owned by the Environment Agency and not part of the development site.

To the north of the site a mature hawthorn boundary hedge borders onto a former limestone quarry site with Barnwell Mill Farm and Barnwell Mill beyond.

The entire eastern site boundary edge is formed by existing mature hawthorn hedges. Beyond this boundary hedge the land rises to a visual horizon formed by the A605.

The southern edge is formed by a patchy existing boundary hedgerow with Lilford Hall, located approx. 1.5km distant from this boundary.

The proposal site is largely level at around 22.50m AOD.

The adjacent largely rectangular fields are enclosed with mature tall mainly hawthorn field boundary hedges with some mature oak and ash hedgerow trees.

4.2 The OS map indicates a finger posted ‘public footpath’ NP1 starting at the A605 road near Barnwell Mill Farm, heading south-eastwards towards Lilford, but stopping at the estate boundary. This footpath is at the moment non-contiguous and therefore little used. To the south-east of the site towards Lilford Lodge Farm the NP1 footpath cuts through a young woodland plantation and intervening planting and hedgerows prevent direct views of the site. Where it borders the site the footpath is located to the east of a mature hedgerow and prevents direct views of the site.

Heading north towards the Oundle Town Rowing Club facilities and Barnwell Mill Farm the path rises gently over the final 150m to approx. 30.0m AOD.

The development proposals would not necessitate any diversions to these footpaths or public right of ways.
**Planning context**

4.3 The ‘Northamptonshire Environmental Character Assessment Map’ classifies the site as being within the ‘Lower Nene (Aldwincle to Wansford)’ area, flanked by the ‘Rockingham Forest’ area to the west and the ‘East Northamptonshire Claylands’ to the east.

The River Nene Regional Park (RNRP) draft ‘Nene Valley Strategy’ emphasizes the need to ‘…instigate a range of environmental, tourism and leisure initiatives…’ and suggests that investment should be made in facilities for ‘boat hire, better navigation facilities (moorings, pump-outs, water points, sewage disposal etc.) as well as canoe/kayaking, sailing, rowing, angling.’

Maps in ‘The Rural North, Oundle and Thrapston Plan – February 2007’ (RNOTP – still under consultation in February 2009) identify the riverside flood meadows immediately to the south, between Lilford Hall and the site as a ‘Tourist site’. The 2 fields that are subject to the proposed development are adjoining to and immediately to the north of these flood meadows.

The same RNOTP identifies the old quarry field to the north of the site as ‘Important open land’ and a ‘County wildlife site’. The proposed development is outside the area identified and should have no effect on this designation.

The recent ‘Northamptonshire Minerals and Waste Development Framework - Proposed Submission – January 2009) places the site in a ‘Safeguarded River Valley’ area, and thus outside the Main Areas of Focus for Extraction (Central Nene valley between Northampton and Wellingborough).

The RNOTP shows the proposed development area as lying within the ‘Mineral consultation zone’.

**Designations**

4.4 Other than the items mentioned above the site does not appear to be located within an area with any ‘Special landscape’ designation or have any specially identified special nature conservation value. There appear to be no statutory wildlife designations either within the study site or adjacent areas, under the Wildlife and Countryside Act 1981 (as amended) or under International legislation such as The Habitats Directive embodied in The Conservation (Natural Habitats, &c.) Regulations 1994.

4.5 A recent Extended Phase1 Ecological Survey, and subsequent protected species surveys enclosed with the application, have not revealed any special ecological or wildlife concerns in connection with this site.

4.6 The site location and landscape context can be further identified on:

- Figure 1 Zone of Theoretical Visibility (ZTV) + Viewpoint locations plan
- Appendix 1 Viewpoint photographs A to G
EXISTING LANDSCAPE CHARACTER

Identification of the study area in existing reports

4.7 Report sources assist in the understanding of the landscape context. The ‘Northamptonshire Current Landscape Character Assessment’ (LDA Design-January 2006: ‘Northamptonshire Current Landscape Character Assessment’ - County Environmental Character Assessment report for Northamptonshire County Council) helps to define the wider landscape context for the site and surrounding area.

The report identifies the site as being located within the ‘Broad River Valley Floodplain’ and more specifically the ‘Area 18f – River Nene – Thrapston to Cotterstock’ character area.

The character description for this section of the R. Nene valley is included below:

“The Broad River Valley Floodplain occurs within the valley bottom of the county’s two major rivers, comprising the River Nene, which flows through the central and eastern part of the county, and the Welland, whose course defines the northern boundary of Northamptonshire. The main rivers, and the tributary watercourses that flow into them, follow a meandering course across the floodplain, which is clearly distinguishable by the flat, low lying riparian landscape. The drift deposits within the floodplain, including alluvium, silt, glacial tills and sand and gravel have influenced the land use pattern that has evolved across the floodplain including, within the last century, extraction of the substantial reserves of sand and gravel from sections of the Nene Valley, particularly between Northampton and Thrapston. Restoration of worked areas has resulted in the creation of a mosaic of lakes and wetland areas, which now support important bird communities and are designated for their biodiversity value.

This extensive man made landscape and emergent and newly restored land has changed the character of this central section of the Nene Floodplain to a wetland dominated landscape. The floodplains are generally flat and broad, merging into the adjacent gently sloping valley sides. Variations are evident, however, where the river courses are contained by rising landform, such as the sections of the Nene adjacent to the Limestone Valley Slopes, and along the Welland where the steeply rising scarp slopes form a backdrop to the floodplain landscape. Apart from the lakes and wetland areas, and active gravel extraction sites, much of the floodplain comprises a pastoral landscape including some species rich unimproved grasslands, together with arable land particularly in the west of the Nene Valley.

Woodland cover is limited so when present, small woodlands and mature hedgerow trees assume local importance. The course of the river is often unnoticeable as bankside vegetation is often sparse. While settlement is generally absent within the floodplain due to flooding constraints, a series of settlements have developed on the rising land immediately adjacent to the floodplain, often at bridging points. These range from small rural villages to major urban areas, notably Northampton and Wellingborough, resulting in very contrasting contexts to the Broad River Valley Floodplain setting. In addition to local roads that cross the floodplain a number of major road and rail routes pass through or close to the valley, either skirting or within the floodplain, taking advantage of the gentle gradients and connectivity through the area. These intrude into the otherwise quiet and peaceful riparian landscape as a result of traffic noise and movement.”

4.8 The same ‘Northamptonshire Current Landscape Character Assessment – January 2006’ also identifies key landscape character features that seem particularly relevant to the application site area:

- **Broad, flat and predominantly wide floodplain** with a generally open character **surrounded by rising landform of adjacent landscape types**. The character can vary from deeply rural and remote in more secluded locations to busy and settled in the vicinity of the surrounding urban areas and extractive industry operations.

- **River channel** with the impression of a **slow flowing watercourse**, with **limited bank side vegetation in areas**. Where river edge vegetation and trees is absent the course of the river is difficult to perceive.

- **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**. The mosaic of pastoral land, with valuable areas of biodiverse rich grasslands and riparian vegetation, and arable land contributes to the changing patterns along the valley.

- **Limited woodland cover confined to occasional broadleaved copses scattered throughout the floodplain** together with areas of emerging young woodland, and scrub vegetation. The sparse woodland cover contributes to the generally open character of the floodplain.
- Hedgerow trees, although infrequent, are an important feature where they do occur, creating localised well treed areas and more intimate and enclosed areas in contrast to the generally more open character elsewhere. Hedgerows are generally overgrown and reinforced with post and wire fencing with intermittent sections showing evidence of decline and a neglected character. Where hedgerows are mature, these can combine with the hedgerow trees to create local enclosure.

- Settlement is very limited within the floodplain as a consequence of the flooding constraints, with a sequence of small, nucleated villages on the lower valley slopes and occasional settlements adjacent to the river and floodplain as at Nether Heyford on the Nene and Duddington on the Welland, and a wider settlement pattern of scattered farmsteads and individual dwellings. The settlements on the rising land immediately adjacent to the floodplain are indicative of the close relationship between settlement location and river accessibility, including bridging points.

- Urban influences arising from the proximity of large urban areas and associated road infrastructure on the perimeter of some sections of the floodplain, and introducing a busier and developed character, and detracting from the otherwise rural and more remote character of the floodplain.

- Minor roads generally cross the floodplain landscape at right angles to the river, with major roads following the valley course and marking the boundary of the type. Traffic on the network of roads, particularly the principal roads, introduces movement and noise to an otherwise generally quiet rural landscape.

- 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. These have had a significant effect on the character of the floodplain within this section of the Nene Valley changing the floodplain from a simple pattern of arable and pastoral land to one dominated by active mineral extraction and significant areas of man made wetland and lakes interspersed between retained agricultural activities and scrub areas.

- Significant recreational activities within the Nene Valley landscape, mainly focused on the restored lakes but also extending into the wider riparian landscape create a range of experiences from active to passive for the local communities and visitors to the area.

4.9 Within and partly defining this landscape context, the pattern of development is of the small villages of Stoke Doyle to the west, Pilton and Lilford Hall to the south, the A605 is located on the valley ridge to the east, with Oundle to the north.

4.10 The topography, agricultural patterns and the resultant landscape framework of the site are typical of the area.

Of particular relevance is the text that refers to ‘…

‘River channel with the impression of a slow flowing watercourse, with limited bank side vegetation in areas. …The mosaic of pastoral land, with valuable areas of biodiverse rich grasslands and riparian vegetation, and arable land contributes to the changing patterns along the valley. …The sparse woodland cover contributes to the generally open character of the floodplain…
Where hedgerows are mature, these can combine with the hedgerow trees to create local enclosure…
Traffic on the network of roads, particularly the principal roads, introduces movement and noise to an otherwise generally quiet rural landscape…
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. These have had a significant effect on the character of the floodplain within this section of the Nene Valley changing the floodplain from a simple pattern of arable and pastoral land to one dominated by active mineral extraction and significant areas of man made wetland and lakes interspersed between retained agricultural activities and scrub areas.
Significant recreational activities within the Nene Valley landscape, mainly focused on the restored lakes but also extending into the wider riparian landscape create a range of experiences from active to passive for the local communities and visitors to the area…’

4.11 Hawthorn hedgerows dating largely from the Enclosure Act period, with a small number of mature hedgerow oak and ash trees, divide fields and line the roads in the vicinity of the site.

No significant trees of any size exist on the site itself.
A small peninsula of land between the site entrance and the R.Nene contains a number of over-mature cricketbat willows, overdue for harvesting or new pollarding.
This area does not form part of the application.
4.12 The NCC ‘Biodiversity Character Area Assessment’ identifies the area as being located in a ‘Major floodplain of the Lower Nene’, under headings covering ‘Rivers and streams and Wet + Marshy grassland’ with a further classification in the NCC ‘Land Use Map’ as ‘floodmeadow grassland’.

4.13 NCC ‘Current Character Areas Strategy and Guidelines’
this report sets out the following guidelines for the study area:

‘Landscape Strategy
New development, change and land management practices should be controlled or encouraged to conserve and enhance the simplicity of the quiet and open pastoral landscapes that characterise many sections of the Broad River Valley Floodplain particularly within the Welland, and downstream from Thrapston in the Nene Valley. In view of flooding constraints and particular care is needed to integrate change into this simple and often very visible landscape that is overlooked from more elevated land. However, potential limited built development may arise in association with farming practices or for new infrastructure requirements, such as roads. Here, particular care is needed to integrate change into the locality for appropriate building styles including local vernacular, materials, layout and arrangement of features in the landscape.

Woodland cover within the floodplain is low, with the local pattern of tree lines along watercourses, canals and roads forming important local features. The introduction of extensive woodlands would be inappropriate, but this more intricate pattern of tree cover should be conserved, and where possible enhanced. The enhancement of hedgerows to strengthen their visual contribution to the landscape as well as their biodiversity value should also be encouraged. The legacy of sand and gravel extraction in the middle section of the Nene Valley has resulted in a progressive change in the floodplain’s character to a predominantly wetland landscape. Future extraction and restoration operations should seek to limit the creation of further lakes and encourage the establishment of a mosaic of pasture, and where possible, wet grasslands supported by traditional management systems, in order to re-establish this much diminished habitat that once formed a much greater part of the intrinsic character of the floodplain regulations, there would be a presumption against development within the floodplain. ’

Below are extracts from the Strategy and Guidelines that are pertinent to the site location and that should be considered in the detailed development proposals:

<table>
<thead>
<tr>
<th>Key landscape character feature</th>
<th>Landscape guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Landform and Views</strong></td>
<td></td>
</tr>
<tr>
<td>Broad, flat and predominantly wide floodplain with a generally open character surrounded by rising landform of adjacent landscape types. The character can vary from deeply rural and remote in more secluded locations to busy and settled in the vicinity of the surrounding urban areas and extractive industry operations. River channel with the impression of a slow flowing watercourse, with limited bank side vegetation in areas. Where river edge vegetation and trees is absent the course of the river is difficult to perceive.</td>
<td>• Conserve and Enhance the identity of the floodplain as a separate morphological unit by strengthening its distinctive character in comparison with the changing character of the rising valley sides. • Strengthen the identity of the river course within the floodplain through the Creation of further areas of river edge trees and small scale linear woodlands.</td>
</tr>
<tr>
<td><strong>Land management</strong></td>
<td></td>
</tr>
<tr>
<td>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. The mosaic of pastoral land, with valuable areas of biodiverse rich grasslands and riparian vegetation, and arable land contributes to the changing patterns along the valley.</td>
<td>• Conserve and where possible Encourage the diversity of land use with a predominance of pastoral land, including areas of species rich grasslands, and areas of arable cultivation. Encourage the reversion to wider areas of pasture to strengthen the association of a pastoral landscape within the floodplain. • Conserve existing areas of neutral grassland and seek to enhance the resource by arable reversion and expansion of non improved pasture. Encourage the creation of areas of neutral grassland by appropriate intervention and management.</td>
</tr>
</tbody>
</table>
### Woodland and Trees

**Limited woodland cover** confined to occasional broadleaved copses scattered throughout the floodplain, together with areas of emerging young woodland, and scrub vegetation.

The sparse woodland cover contributes to the generally open character of the floodplain.

**Hedgerow trees**, although infrequent, are an important feature where they do occur, creating localised well treed areas and more intimate and enclosed areas in contrast to the generally more open character elsewhere.

Hedgerows are generally overgrown and reinforced with post and wire fencing with intermittent sections showing evidence of decline and a neglected character. Where hedgerows are mature, these can combine with the hedgerow trees to create local enclosure.

### Mineral Extraction

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.

These have had a significant effect on the character of the floodplain within this section of the Nene Valley changing the floodplain from a simple pattern of arable and pastoral land to one dominated by active mineral extraction and significant areas of man made wetland and lakes interspersed between retained agricultural activities and scrub areas.

### Recreation

Significant recreational activities within the Nene Valley landscape, mainly focused on the restored lakes but also extending into the wider riparian landscape creates a range of experiences from active to passive for the local communities and visitors to the area.

- **Conserve** and **Enhance** the existing small linear woodlands and copses and river edge trees by appropriate management and support the continued use of broadleaved native species.

- **Create** new small-scale woodlands in appropriate locations to continue the pattern of an intermittent intricate mosaic of small, mainly linear woodlands. Encourage the use of broadleaved native species for woodland planting to enhance biodiversity.

- **Conserve and Restore** hedgerow and river edge trees to provide local features and enrich the riparian landscape.

- **Conserve** mature hedgerow trees and encourage their replacement and continuity as features in the landscape through natural regeneration within hedgerows, or by new planting.

- **Conserve** hedgerows through appropriate long-term management that encourages diversity. Where declining, seek opportunities to gap up hedgerows where previous management has removed them or prevented natural regeneration.

- **Enhance** hedgerow biodiversity by encouraging natural regeneration and appropriate long-term management.

- **Seek to limit the creation of further lakes in connection with any future extraction and restoration operations.**

Encourage the **Creation** of a mosaic of pasture, and where possible, wet grasslands supported by traditional management systems, in order to re-establish this much diminished habitat that once formed a much greater part of the intrinsic character of the floodplain.

- **Conserve** and **Enhance** the wide ranging recreational activities that have developed in association with the restored gravel extraction lakes and also in association with the River Nene.

- **Encourage the Creation** of further developments to serve the recreation and leisure requirements of local and wider communities, but ensuring that they appropriately and sensitively sit in relation to landscape character, and accord with the principles of sustainable tourism.
Natural characteristics of the site landscape + site visibility

4.14 The site lies alongside the R.Nene and thus fully within the base of the river valley about midway between the village of Pilton/Lilford and the market town of Oundle.

The site is a flood meadow lying east of the R.Nene, just below the 25.0m Ordnance Datum (AOD) contour.

The site is improved watermeadow grassland. A backwater inlet from the river cuts off a small peninsula, not included within the application, planted with mature cricketbat willows.

The site boundary to the east consist of a mature mainly unmanaged hawthorn hedgerow with existing fishing lakes and arable fields beyond.

4.15 To the east the Barnwell Road at about 38.0m AOD on the top of a ridge forms the visual horizon from the site and consists of mature hawthorn roadside hedgerows, containing large mainly oak hedgerow trees.

At this point the site is screened from road and roadside footpath users by these field boundary hedges, except for the occasional glimpsed view over and beyond intermittent clipped field boundary hedges and where gaps in the roadside hedgerows occur.

4.16 To the west the land beyond the site rises slightly up to approx. 40m AOD, at Stoke Doyle village, at a distance of approx. 1.5km. Because of intervening field boundary hedgerows and trees no views from this location occur.

4.17 To the south, following the river upstream towards Lilford and Lilford Hall at approx. 1.5km distance, views to the site are again interrupted by intervening hedgerows and hedgerow trees.

Similarly there appear to be no direct public area or private views from Pilton village and Pilton Hall due to intervening hedgerows and general planting.

4.18 From the public footpath adjacent to Barnwell Mill Farm to the north of the site there exists natural screening by existing field boundary hedgerows and riverside willows but the location of the footpath on rising ground above the main valley of the R.Nene and some gaps in the vegetation does permit a few views of the site from this footpath (see Viewpoint 3 below).

4.19 An overhead electricity supply line is situated on the site, running north-south parallel with the eastern site boundary and is visible from various locations around the site.

Identification of Primary viewpoints

4.20 The Barnwell Road and footpath located east of the site, running north-south towards Oundle, is lined with unmanaged field boundary hedges that prevent views of the site, apart from where a few breaks occur in the hedgerows (VIEWPOINT 1) at 38.0m AOD and at an entrance gate giving access to Oundle Town Rowing Club and to the existing riverside moorings (VIEWPOINT 2).

4.21 A footpath to the east of the site rises up to the ridge level of 35.0m AOD adjacent to Barnwell Mill Farm at the location of existing riverside moorings to the north-east of the site.

This final section path will afford some views of the site in between existing vegetation and riverside trees (VIEWPOINT 3).
4.21 East of the site the same footpath is shielded from the site by an unmanaged field hedge that forms the site boundary. (VIEWPOINT 4)

4.22 To the north-west on the public footpath off the Stoke Doyle Road leading to the village of Stoke Doyle, views of the site are disrupted by intervening hedgerows that screen the site (VIEWPOINT 5).

4.23 South-west of the site users of the footpath at Pilton Manor and the Pilton to Stoke Doyle footpath do not have views of the site due again to intervening hedgerows and hedgerow trees (VIEWPOINT 6).

4.24 A few long distance secondary views to the site area (3km and over distant) may occur over and across intermediate foreground hedgerows and other vegetation from some higher ground locations eg. to the north-west on the Benefield Road.

4.25 The general topographic effects on the site’s zone of visibility are illustrated on Figure 1. It should be noted that the zone of visual influence (ZVI) definition on Figure 1 relates to the assumed immediate short and medium range visibility of the proposed development.

Landscape classification and evaluation

4.27 The local landscape character includes the following elements:

- open farmland and grassland
- river and riverside environment

4.28 The development proposal would alter the landscape classification and evaluation at a local level from ‘open grassland’ to ‘water and wateredge’.

Landscape sensitivity

4.29 Sensitivity is categorized as high, medium, low or negligible, according to the degree to which a particular landscape or area can accommodate change arising from a particular development, without detrimental effects on its character, as based on the following factors:

- existing land use
- the pattern and scale of the landscape
- visual enclosure/openness of views and distribution of visual receptors, view duration
- the scope for mitigation which would be in character with the existing landscape
- the value placed on the landscape

4.30 The landscape within and in the immediate vicinity of the application site is considered to have a medium sensitivity to the landscape changes arising from the proposed development, due to the position alongside the river and the mitigation element of 2 existing large fishing ponds in adjoining fields, of which the proposal would appear to form a visual extension, all contained within existing hedgerow field boundaries.
Potential for landscape enhancement

4.31 The development proposal is proposed to be largely contained within existing hedgerow boundaries, thus not altering these historic field boundaries.

The proposal will include for reinforcement, diversification and widening of the existing field hedgerows and augmentation with a number of hedgerow trees, thus enhancing the existing field boundaries. In addition a number of riparian trees will also be planted.

As referred under 4.13 above this approach will follow the Landscape Guidelines, set out in the NCC ‘Current Character Areas Strategy and Guidelines’ where it is recommended to:

‘Strengthen the identity of the river course within the floodplain through the creation of further areas of river edge trees and small scale linear woodlands.’

‘Conserve and restore hedgerow and river edge trees to provide local features and enrich the riparian landscape.
Conserve mature hedgerow trees and encourage their replacement and continuity as features in the landscape through natural regeneration within hedgerows, or by new planting.
Conserve hedgerows through appropriate long-term management that encourages diversity. Where declining, seek opportunities to gap up hedgerows where previous management has removed them or prevented natural regeneration’.

‘Enhance hedgerow biodiversity by encouraging natural regeneration and appropriate long-term management.’

‘Conserve and enhance hedgerows by sensitive management that encourages diversity, whilst maintaining a neat network of boundaries that reinforce the relationship between land use and emphasise the grain of the landscape and landform features. Replace post and wire fencing where possible and gap up hedgerows with new hedgerow planting of appropriate species.’

‘Encourage the creation of further developments to serve the recreation and leisure requirements of local and wider communities, but ensuring that they are appropriately and sensitively sited in relation to landscape character, and in accord with the principles of sustainable tourism.’
Summary of existing baseline

4.32 The site is located at the base of the river valley immediately adjacent to the R.Nene and lies between the river and two recently excavated fishing lakes.

The site location is in an open landscape setting, away from existing settlements.

4.33 The wider landscape setting is typical of this part of Northamptonshire and is considered to be of medium sensitivity to the changes caused by the development proposal. From the majority of identified main receptor viewpoints the site location itself is visually connected to the R.Nene within the river valley corridor and to the adjacent existing fishing lakes.

4.34 Land management and topography dictate an open character within the river valley floor adjacent to the site. A mixture of arable and improved pasture extends up the gently rising river valley slopes, in the form of mainly grass pasture fields at the base of the valley with rectilinear arable fields with neat hedgerow boundaries and sparse hedgerow trees higher up on the valley slopes and ridges.

4.35 The highest section of the Barnwell Road, and part of the public footpath to the north-east of the site, adjacent to Barnwell Mill Farm, offer transient views of part of the site where it lacks a short section of roadside verge hedgerow.

4.36 The site will of course be visible to boaters on the R.Nene but in contrast to the existing riverbank moorings located immediately downstream near Barnwell Mill Farm, the planned marina moorings will have the benefit of being off-river with improved screening.

4.37 No significant long distance views of the site occur from villages to the south (Pilton, Lilford) and west (Stoke Doyle) that would identify the proposed development site as a new landscape element, thanks to intervening hedgerows and riverside trees. Transient medium distance views from the A427 Benfield Road at 2.5km away are few due to intervening existing roadside screenplanted hedgerows, hedgerow trees or other vegetation.

4.38 Within the landscape context and the visual envelope of the site as described above lie two recent new areas of water in the form of recently excavated fishing lakes and visible from some of the site environs. The proposed site borders directly onto these existing recent water bodies and would in most views appear as no more than a logical extension to these existing features.

4.39 Within present Plan contexts this site has not been identified as being part of a ‘Special landscape area’, or having SSSI, Ecological, Archeological or Geological interest or of having any other special designation.
5 DEVELOPMENT PROPOSALS AND MITIGATION MEASURES

Assessed development with recommended mitigation, compensation or enhancement

5.1 Mitigation is a key component in the design and project planning process, starting at the inception of a project with the analysis of environmental opportunities and constraints. It is used to adapt and modify the development to take account of these factors and hence achieve the best ‘environmental fit’. The mitigation of impacts can take place at a variety of levels. The ideal strategy is one of avoidance, but if this is not possible, alternative strategies of reduction, remediation and compensation may each be explored.

Common mitigation measures include: sensitive location + siting, site layout, site levels, form, materials, colour and design of built structures, ground modelling, planting, lighting, etc.

5.2 This study is prepared in support of a detailed planning application and the assessment is based on detailed proposals for the preparation of the illustrative Viewpoint photomontages. The iterative nature of the assessment and project design processes will be used in due course to promote the integration of the development proposals, design out impacts where possible and where mitigation remains necessary, measures as referred to above will be designed into the development.

Proposals

5.3 It is proposed that the existing riverside pasture site is developed for moorings, in the form of an ‘off-river’ marina, as an extension to the existing leisure facilities offered by two existing adjacent fishing lakes.

The development proposals include for extensive new planting in the form of new riverside willow tree planting, extensive on-site screenplanting and by the reinforcement of existing boundary hedgerows. These measures will be designed to preserve and improve the local biodiversity, effect new and improved habitat creation, mitigate the impact of the new facilities building, as well as improving the screening and landscape integration of the existing adjacent fishing lakes development.

In this context it is proposed to locate the new marina development within the existing hedgerow pattern, reinforced with new planting consisting mainly of native species, enhancing the biodiversity of the area and acting as an efficient green foil between the development and any short distance views from public roads and footpaths. These reinforced hedgerows will also act as an effective green envelope to the proposed development when seen from any medium and long distance views to the site and will aid the integration of the site within the wider landscape setting.

The development proposals will include a number of measures taken to create new or improve existing habitats, as indicated on the development proposals drawings. Whilst the site location places it within the river valley and potentially seen from the ridgeline containing the Barnwell Road, and therefore in part in a position of potential high visibility, it is considered that the proposed new planting, together with the locations of existing field boundary hedgerows on the site perimeter, combining to reduce the number of visual receptors of the site, will result in the long term in an acceptable integration of the proposals into the landscape setting.

Retention of existing features
5.4 The proposals assume the retention of the existing boundary hedgerows and vegetation in the overall landscape setting, and the aiding with the maintaining and creation of new habitats as recommended in the Phase 1 Ecological Survey.

Assumed scope of development

5.5 For the purposes of illustrating the likely impact photomontages that are shown in Appendix 1, the proposed new marina and mooring pontoons and craft shown are assumed to have a size and form that is typical of the rivercraft that are used on the R.Nene.

Impacts during the site development operations/construction phase

5.6 Landscape and environmental impacts occurring during the extraction and excavation works are detailed in the reports by GP Planning Ltd accompanying this application.

Minerals Extraction and Excavation process and activities

The following is a summary of the nature and parameters of the activities that will be carried out and the equipment used to extract material to create the marina adjacent to the River Nene. The minerals excavation is equivalent to the construction phase of the proposed development.

The extent of the area for extraction of minerals is identified on drawing SRL.17.09B and drawing GPP/FG/LLF/09/02, accompanying the application, and it is located between the River Nene to the west and an existing hedgeline to the east. The material to be extracted will be sand and gravel and will be extracted over a period of 3 years.

The process to extract the material will be as follows:
- Strip existing topsoil, and remove off site, probably twice a year in Spring and Autumn
- Remove overburden, and stockpile for re-use in the construction of the Marina
- Excavate material to a depth of about 5m, process and remove off site
- Infill with overburden and back load inert waste to reduce the overall depth of water to 2m.

The area to be excavated will be progressively worked from North to South. An excavator and dump truck will be used to remove the material. The excavator will operate in the base of the area being excavated. There will be a ramp to allow the dump truck to move in and out of this area. The dump truck will take material along a route located to the west of the existing hedgeline to the processing area to the south. The processing equipment will be located on a 50 x 50m concrete slab. The processing equipment is approximately 23m in length and 7m in height. Associated with the processing equipment will be four stockpiles of processed material. These will be approximately 4 – 5m in height. The processed material will either be removed directly offsite along the temporary access road or stored in the stockpile area located to the south of this road.

Landscape impact
The relationship between the landscape character and the extraction of material is noted. The extraction area is located within the ‘Broad River Valley Floodplain’ and the ‘Area 18f – River Nene – Thrapston to Cotterstock’ character area. It is noted that

‘The drift deposits within the floodplain, including alluvium, silt, glacial tills and sand and gravel have influenced the land use pattern that has evolved across the floodplain including, within the last century, extraction of the substantial reserves of sand and gravel from sections of the Nene Valley … Restoration of worked areas has resulted in the creation of a mosaic of lakes and wetland areas.’

In addition, active gravel extraction sites are also noted as being present within this character area.

The location and type of extraction activities can therefore be described as typical of and contributing to the landscape character of this area. However, the landscape guidelines note that in the future the creation of further lakes in connection with any future extraction and restoration operations should be limited and the creation of a mosaic of pasture should be encouraged. We need to counter this by distinguishing the water body required for the marina as something quite different in landscape terms to the water bodies left after mineral extraction.

**Visual Amenity impact**

The minerals extraction activities will only have a temporary effect (3 years) on the visual amenity, and the concentration of activity will move across the site as the operation progresses from North to South. The stockpiled minerals may be in place for 4-5 years, depending upon the local demand for the material in the construction market.

Key points to note when considering the impact on the visual amenity of these activities:

- The movement of the dumper truck and excavation activities will be largely screened by the existing hedgeline in views from the east.
- The excavator will be largely screened as a consequence of carrying out its operations below ground level, in some cases up to a depth of 5m.
- The stockpile area will be screened by bunds to the north and south, as indicated on drawing GPP/FG/LLF/09/03, accompanying the application.
- The proposed temporary access road to the north of the stockpile area will be only for the period of excavation and is to be screened by a bund created by the stripped soils.
- The proposed temporary access road, location of stockpile area and location of processing equipment has been arranged to minimise lorry movements across the landscape and to concentrate the activity in as small an area as possible.
- The stockpiles will be a sandy brown colour, because of the nature of the material, the colour will change if they are wet or dry.
- Activity will move across the excavation area from North to South, therefore the location of any impact will change over time, becoming more visible from some locations and less visible from others.
- The lorry movements, and movements of the plant necessary to excavate and process the material will add movement and animation to the view.
It is considered likely that the mineral extraction and excavation activities will be visible or partially visible from viewpoints A, C, and G. Users of footpath NP1 may at times experience noise and possibly dust at viewpoint D.

**Positioning of marina development and facilities building**

5.7 The design and size of the proposals is to a large extent dictated by the existing site features and attributes. The existing backwater access channel to the R. Nene acts as a logically placed existing access point from the river.

The excavated form and size of the marina will create generous new open water areas whilst facilitating a number of different size floating pontoon moorings to suit various river craft, without the area looking crowded and overfull.

A variety of wateredge treatments will create a number of alternative habitats, including new reedbeds.

The scale and placement of the low key facilities building, located outside the main development site area and within the framework of existing boundary hedges, is an important factor in the detailed layout design of the development. Keeping the location of the building outside off the marina area itself will reduce the introduction of hard construction elements in this area to floating mooring pontoons only. This will reduce the number of visual receptors of the building and assist with the long term satisfactory integration of the building into the local landscape setting.

The considered positioning of the above combined with the screening effect of the existing reinforced boundary hedging and new riparian trees and planting would aim to minimise the impact of the development when seen from the river as well as in wider landscape views.

**Landscape strategy, planting proposals + screening**

5.8 Retention and reinforcement of key existing vegetation should form the basis of a future landscape strategy. The eastern and southern site perimeter boundary hedgerows are to be protected and strengthened with additional woody and herbaceous underplanting, combined with sympathetic hedgerow management.

5.9 On-site landscaping will comprise a number of river edge willow trees and general riparian habitat planting.

5.10 All the field boundaries are of native hedgerow stock. New planting will therefore also be based on mainly native hedgerow and woodland type plant material and this will assist with the landscape integration of development as well as aiding local biodiversity, as recommended in the NCC ‘Strategy and Guidelines’ and as stated in 4.13 and 4.31 above.

The proposals will allow for including a limited number of new hedgerow trees within the existing field boundary hedges with a view to reinforce local landscape character and accommodate the development within the local landscape pattern, as recommended in the NCC ‘Current Character Areas Strategy and Guidelines’ (see also 4.13 above).
6.0 IMPACTS OF COMPLETED DEVELOPMENT STAGES

6.1 The development stage works will include general site strip, excavation and disposal off-site of gravel deposits followed by backfilling, grading and the forming of the marina banks as detailed, with built development including floating pontoon moorings, access roads, footpaths, hardstandings, facilities building and implementation of landscape planting.

Landscape impacts of development stages

6.2 The main landscape effect of the construction stage will be the visual and wildlife disturbance caused during the excavation process and the permanent loss of an area of flood meadow pasture land.
This improved pasture is however typical of the valley floor pasture in the surrounding landscape and does not form an unusual or special resource in local landscape terms.

Potential localized grading requirements for the proposed development are assumed to retain roughly the same ground levels and response to the river valley context, and to retain any floodplain requirements and the overall landscape effects of likely re-grading in this area are considered minor/neutral.

6.3 The loss of grazing land to the development is considered to have a medium negative effect. However, the development will result in the formation of a large area of new riverine water and waterside habitat with reinforcement of existing hedgerow boundary planting, new riparian trees and substantial areas of new marginal planting.

In the wider landscape context the development will affect the present situation, by creating an additional area of open water within the river valley, and this could be considered to have a medium/negative effect in landscape terms, in view of the NCC recommendations made under 4.13 above:

‘Seek to limit the creation of further lakes in connection with any future extraction and restoration operations.
Encourage the creation of a mosaic of pasture, and where possible, wet grasslands supported by traditional management systems, in order to re-establish this much diminished habitat that once formed a much greater part of the intrinsic character of the floodplain’

Although the proposals would appear to be contradictory to these recommendations they should however be viewed within the context of being located immediately adjacent to already established areas of existing open water. In addition the newly created area of open water is relatively modest in scale when viewed within the local river valley landscape context and will involve significant new valuable habitat creation.
The RNOTP also shows the site to be located within the ‘Mineral consultation zone’.

Visual impacts of development

6.4 The Zone of Theoretical Visibility (abbreviated to ZTV - Figure 1) provides guidance on short and medium distance views to the site.
The extent of the ZVT has been estimated and is based on site survey assessment and on desk based topographic mapping study.
6.5 In broad terms, the ZTV is primarily defined by boundary hedges and the Barnwell Road ridge to the east, the topography between the site and Barnwell Mill Farm to the north, the presence of continuous roadside field boundary hedges along the Stoke Doyle Road to the west, and numerous field boundary hedges between the proposal site and the villages of Pilton and Lilford the south.

6.6 The position of the site in relation to existing topography, development and infrastructure dictate that there are only a few potential medium distance views to the site development, from the north-west direction.

Despite a large number of existing intermediate field hedgerows, the site may however be seen in distant views from some high ground and ridgelines in cases where no existing planting assists in screening long distance views.

**IDENTIFIED PRIMARY VIEWPOINTS:**
(Appendix 1 - for viewpoint locations see Figure 1)

6.7 All viewpoints show an existing situation view at the top of the page, with an illustrative photomontage view below, after assumed 15 years growth of any proposed hedgerow reinforcement and on-site planting.

In view of the timing of the surveys carried out all views are shown during early Autumn conditions, with leaf cover to intervening vegetation and trees.

Leafless winter conditions are expected to provide a reduced screening effect over the views shown.

**Motorists and public road user views**

6.8 **VIEWPOINT A – OS ref TL 043 862**
There are a few direct short distance views to the development site from the Barnwell Road and from the roadside footpath.
This photograph shows a typical view as seen from the roadside footpath, approximately 800m distant from the site.
Eye level from this viewpoint is estimated at 37.0m AOD, looking south-west towards the church spire at Pilton.
This can be assumed to be closest case for general site visibility for Barnwell Road users although views from this elevated viewpoint are essentially transient and of short duration depending on the receptor’s speed of travel eg. walking, cycling or motorist.
The topography is not favourable to the development in this particular viewpoint, with the receptors located at an elevated position. It should however be noted that this view occurs only in this location because of a gap in the field boundary hedgerow.

Impact significance on these views is assessed as initially moderate/negative, changing to minor/negative with the development of the proposed new on site planting.

6.9 **VIEWPOINT B – OS ref TL 041 864**
From the entrance to the Oundle Town Rowing Club site and the existing riverside moorings the proposed development appears to be partly shielded by existing riverside trees and hawthorns that grow on the former quarry site.

Despite the close proximity to the site, views from this elevated viewpoint are essentially transient because they are likely to be experienced only by users of the rowing club and existing riverside moorings on an intermittent basis.
It should also be viewed within the context of being located immediately adjacent to an established rowing club facilities of a building and stored boats that already feature in a number of views. Tree planting along the boundary and on-site within the marina development is also going to assist in softening the view in the long term.

It is therefore considered that the significance of this view will initially be minor/negative, eventually moderating to minor/neutral with time.

Footpath, bridleway and recreational views

6.10 VIEWPOINT C – OS ref TL 038 867
There appear to be some direct line views to the site to the south-west, from the Lilford to Barnwell Mill Farm public footpath terminating point at the Barnwell Road.

This view is located on the footpath approx. 50m south-west of this junction point. Where views occur from this footpath they will be largely limited by existing riverside tree planting, including recent young cricket bat willows, and other intervening foreground hawthorns and it will be seen in the context of the existing moorings, as demonstrated in this view.

It is considered that the significance of views from this point will be minor/negative to minor/neutral, depending upon season, context of view and individual location, eventually moderating to minor/neutral with time.

6.11 VIEWPOINT D – OS ref TL 039 859
This view illustrates a typical view from the same public footpath, east of the site, looking due north in the direction of the previous viewpoint. The development site is shielded for the entire length of this footpath by intervening hedgerows and hedgerow trees and existing recent woodland planting. Immediately adjacent to the site the public footpath is located to the east of the site boundary hedgerow that fulfills an effective screening function. The proposed site development will therefore be shielded from this footpath.

It is therefore considered that the impact significance of views from this location for users of this footpath range from an initial minor/neutral to eventual negligible/neutral

6.12 VIEWPOINT E – TL 028 868
public footpath …..from Stoke Doyle to Oundle Road to Stoke Doyle Rectory

Views to the proposed development from the Stoke Doyle Road to Stoke Doyle Rectory public footpath situated to the west of the site are shielded by the existing intervening hedgerows and riverside trees and poplar tree plantations.

Impact significance of this view is considered to be negligible/neutral.

6.13 VIEWPOINT F – TL 026 846
There appear to be no medium distance open views to the development from the public footpath from Pilton to Stoke Doyle, approximately 1.5km distant to the site.
6.14 **VIEWPOINT G – TL**
The proposed development will be visible from upon the R.Nene and boat users, although the planned additional riparian planting and trees will assist in providing a planted foil to the marina and moorings. The facilities building will be located off-site behind the existing boundary hedgerow. Boat users are accustomed to seeing riverbank moorings and this type of riverside development and in this location they are used to seeing the present riverbank moorings just downstream from the development site near Barnwell Mill Farm.

Impact significance of this view is therefore considered to be negligible/minor.

**Visual impacts of development after 15 years**

6.15 Recent planting to the south-east of the site, to the east of the existing fishing lakes, will continue to establish and is likely to provide an effective summer background and totally screen the site from the Lilford to Barnwell Mill Farm public footpath NG1.

6.16 Views to the site from the Barnwell Road (VIEWPOINT A AND B) will by now be partially screened following the maturing of proposed new site planting and thus experience a minor/neutral effect in winter and a negligible/neutral effect over baseline conditions in summer.

6.17 In views towards the site from the northern end of the Lilford to Barnwell Mill Farm footpath (VIEWPOINT C) the by now well developed off-site riverside willows and additional proposed on-site planting will significantly filter views of the site, providing a blending of the proposed development into the river valley landscape setting.

The effects of the maturing proposed planting on views from this location should result in a minor/negative (winter) to minor/neutral (summer) effect.

6.18 Views from VIEWPOINTS D, E AND F were either non-existing or very marginal and will not significantly change.

6.19 Views from the river itself will now be through a softening foil of riparian pollarded willows and reed margins (VIEWPOINT G).

6.20 The effects of 15 years maturity will enhance both the landscape and visual qualities, with establishing the structure planting of the site and core-reinforcing the landscape character.
### Overall summary of assessed impacts

6.19 Table 1 is repeated from section 3 to provide a simplified assessment reference, whilst the overall summary to the development is summed up in the Table 2 - Summary of landscape effects and Table 3 - Summary of visual impacts.

#### Table 1

Matrix of impact magnitude and sensitivity of receptor to determine impact significance: (repeated for reference)

<table>
<thead>
<tr>
<th>IMPACT MAGNITUDE</th>
<th>IMPACT SIGNIFICANCE : EFFECT ON PROPOSALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LOW</td>
</tr>
<tr>
<td>SUBSTANTIAL</td>
<td>Moderate</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>Minor/moderate</td>
</tr>
<tr>
<td>MINOR</td>
<td>Minor</td>
</tr>
<tr>
<td>NEGLIGIBLE</td>
<td>Negligible/minor</td>
</tr>
</tbody>
</table>

**RECEPTOR SENSITIVITY**
Table 2
Summary of landscape effects (assessed against a ‘do nothing’ scenario)

<table>
<thead>
<tr>
<th>LANDSCAPE COMPONENT</th>
<th>IMPACT MAGNITUDE</th>
<th>RECEPTOR SENSITIVITY</th>
<th>IMPACT SIGNIFICANCE</th>
<th>DEVELOPMENT STAGE: Year 1 IMPACTS</th>
<th>COMPLETED SCHEME: Year 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction phase: Site preparation excavation and grading</td>
<td>medium/negative</td>
<td>Medium (based on current landscape)</td>
<td>moderate/negative</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Removal of excavated material off-site</td>
<td>medium/negative</td>
<td>medium</td>
<td>moderate/negative</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Loss of grazing/agricultural land</td>
<td>medium/negative</td>
<td>medium (based on current landscape)</td>
<td>moderate/negative</td>
<td>minor/negative</td>
<td></td>
</tr>
<tr>
<td>Planting proposals</td>
<td>Minor/neutral evolving to minor/positive as planting matures</td>
<td>medium (based on current landscape)</td>
<td>minor/neutral</td>
<td>moderate/positive</td>
<td></td>
</tr>
<tr>
<td>New building + facilities</td>
<td>medium/negative</td>
<td>medium</td>
<td>moderate/negative</td>
<td>minor/neutral</td>
<td></td>
</tr>
</tbody>
</table>
### Table 3
Summary of visual impacts of proposed development *(assessed against a ‘do nothing’ scenario)*

<table>
<thead>
<tr>
<th>PRIMARY VIEWPOINT</th>
<th>IMPACT MAGNITUDE VISIBILITY OF DEVELOPMENT + CHANGE TO EXISTING VIEW (substantial, medium, minor, negligible + positive, negative, neutral)</th>
<th>RECEPTOR SENSITIVITY Visual Sensitivity of receptors (high, medium, low)</th>
<th>IMPACT SIGNIFICANCE (substantial, moderate, minor, negligible / positive, negative, neutral)</th>
<th>DEVELOPMENT STAGE: Year 1 IMPACTS</th>
<th>COMPLETED SCHEME: Year 15</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIEWPOINT A</td>
<td>Medium + Negative</td>
<td>Low (transient view)</td>
<td>Moderate / neutral</td>
<td>Minor / neutral</td>
<td></td>
</tr>
<tr>
<td>At hedgerow gap</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>along A605</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIEWPOINT B</td>
<td>Minor + negative</td>
<td>low (transient views)</td>
<td>Minor / negative</td>
<td>Minor / neutral</td>
<td></td>
</tr>
<tr>
<td>Oundle Rowing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Club + river</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moorings entrance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIEWPOINT C</td>
<td>Medium + negative</td>
<td>medium (transient views)</td>
<td>Minor / negative</td>
<td>Minor / neutral</td>
<td></td>
</tr>
<tr>
<td>Public footpath</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nr. Barnwell Mill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIEWPOINT D</td>
<td>Minor + Neutral (development lies behind hedgerow)</td>
<td>medium</td>
<td>Minor / neutral</td>
<td>Negligible / neutral</td>
<td></td>
</tr>
<tr>
<td>Public footpath</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>east of the site</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>boundary hedgerow</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIEWPOINT E</td>
<td>Negligible + Neutral</td>
<td>medium</td>
<td>negligible / neutral</td>
<td>negligible / neutral</td>
<td></td>
</tr>
<tr>
<td>Stoke Doyle Road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>footpath to Stoke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doyle rectory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIEWPOINT F</td>
<td>Negligible + Neutral</td>
<td>medium</td>
<td>negligible / neutral</td>
<td>negligible / neutral</td>
<td></td>
</tr>
<tr>
<td>Pilton Manor and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>footpath from</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pilton to Stoke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doyle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIEWPOINT G</td>
<td>Substantial + negative</td>
<td>high (transient)</td>
<td>Substantial / negative (but seen against existing riverbank moorings situation)</td>
<td>moderate / neutral</td>
<td></td>
</tr>
<tr>
<td>from R.Nene</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** All the above Primary Viewpoints are illustrated in Appendix 1: Viewport photographs A to G inclusive.
7.0 SUMMARY AND CONCLUSIONS

7.1 This assessment has been carried out to assess the landscape and visual effects of a proposed marina/moorings development adjacent to the R. Nene at Lilford Lodge Farm. The assessment is based on illustrative proposals only, which have been prepared to reflect the likely quantum and scale of the potential development and to gauge potential landscape and visual effects.

7.2 The proposed development is for the excavation to form a marina/moorings for up to 100 craft with associated paths, hardstandings, a facilities building and landscaping on 2 improved floodmeadow pasture fields bordered by a mature hedgerow to the east, Oundle Town Rowing Club to the north, the R.Nene to the west and the remains of a field boundary hedge to the south. Boundary hedges to the site are largely of hawthorn, are not regularly managed, are up to 5m high and contain sporadic mature oak or ash hedgerow trees. The developed site is to be reached by boat from the river and from the Barnwell Road/A506 via existing access farm roads serving the 2 existing fishing lakes, situated east of and adjacent to the development site.

7.3 The intended development includes for the retention and reinforcement of the existing hedgerow vegetation, with additional new on-site and boundary planting areas to assist with the screening and visual integration of the proposals.

7.4 Located on the broad river valley floor of the R Nene, within a landscape setting of medium sensitivity to the landscape changes arising from the proposed development, the visibility envelope of the site is however not very extensive, due to extensive existing field boundary hedges combined with the local topography and general existing vegetation screening.

7.5 No significant roadside views of the site occur from the Barnwell Road ridge, apart from a few locations in the roadside hedgerows and at the access point to the Oundle Town Rowing Club where occasional gaps in the roadside field boundary hedges give some road users transient views through to the site.

7.6 Some medium distance views exist from the north section of the Lilford to Barnwell Mill public footpath NP1, before it meets the Barnwell Road.

7.7 No actual close views occur at present from the lower section of this footpath where it runs to the east of the development site boundary hedgerow.

7.8 The site is generally shielded from view for users of the Stoke Doyle Road public footpath because the path is located to the west of tall field boundary hedgerows that shield any views of the site from the west.

7.9 No direct views occur from the villages of Pilton to the south-west and Stoke Doyle to the north-west due to intervening hedgerows and field boundary hedgerow trees.

7.10 The site will be visible to boat users from the river itself, but the receptors of these views are largely the beneficiaries of the proposed facility and can be considered to be more tolerant of this type of riverside development, especially in view of the existence of riverbank moorings located downstream, towards Barnwell Mill Farm.
7.11 The landscape context also places the proposal adjacent to 2 existing fishing lakes thus accommodating and diminishing any visual impact considerably. The intrusion of the proposal as a ‘new’ landscape element is therefore not expected to be obvious.

7.12 For the above reasons the proposed development is not expected to cause significant local landscape detriment and it may in the long term provide some overall landscape benefit through the establishment of riverside trees, additional hedgerow reinforcement and new on-site riparian and structure planting, thus generally benefitting the site and site landscape context.

7.13 The development of the ‘wet + marshy grassland’ will result in some initial landscape loss, but this is expected to be mitigated by the visual integration with the adjacent existing fishing lakes development through intensive landscaping.

7.14 In the wider landscape context the development of these fields will affect the present isolated placement situation, at the very base of the wide river valley, visible in the short and medium distance from the nearby Barnwell Road and from some parts of the public footpath NP1 and this should be considered to have a minor/negative effect.

7.15 The potential visual effects of development are in part mitigated by the presence of existing lakes adjacent to the site, the visual integration and screening of which may well be improved by the proposed development and its reinforced boundary planting.

7.16 The development stage of the proposals will involve the excavation and transport of the excavated material, in the form of river gravels and sand, with the associated inevitable disturbance through lorry movements that will create noise, dust etc. but this material will initially be transported to a local facility along the Barnwell Road, partly for local use and further distribution. These detrimental effects should therefore be minimized.

7.17 The proposals will be balanced by a strong structural landscape design, including sensitive on-site landscaping and new habitat creation. The strength of the landscape framework and accommodation is specifically important to the balance of effects and success of the scheme. This approach is assessed to result in a short term overall balance of medium to minor landscape and visual change within a medium sensitivity landscape, leading to a longer term beneficial shift to minor overall landscape and visual change, with neutral to positive effects.
In conclusion

There would not appear to be any justification to oppose the development as proposed on landscape or visual impact grounds, because within the context of the existing landscape, which is considered to be of medium sensitivity, the proposal would by nature and purpose not represent an alien new landscape element but it will appear to be no more than an extension to an already developed area of open water, in the form of the two existing large fishing lakes, along the banks of the R.Nene.

Following completion of the excavations the proposals will create important opportunities for improved biodiversity by a diverse range of new habitat creation.

New indigenous on-site landscaping and reinforcement proposed for the existing perimeter planting of the development should with time adequately fulfill both a screening and assimilation function between the development and the site environs.

Leisure benefits will accompany the creation of the marina facilities, by providing secure off-river moorings and improved facilities for the existing fishing lakes.

The recently published ‘Rural North, Oundle and Thrapston Plan’ (January 2008) refers to the Environment Agency’s document ‘The Navigation Strategy 2004-2007’ and acknowledges the ‘…need for more visitor’s mooring, support facilities and associated infrastructure…’ and ‘…facilities for hiring and maintaining boats…’

The RNOT Plan itself sets out similar objectives under ‘Policy 26 – Water Related Facilities along the River Nene’.

The proposal also appears to comply with objectives set out in the River Nene Regional Park ‘Nene Valley policy document ‘Strategy – First draft’ wherein Item 6.0 ‘Waterways Use and New Facilities’ calls for the type of new facilities to be provided such as moorings, pump-out and water points, boat hire, canoeing facilities etc.

These are exactly the type of facilities that will be provided by the proposed development and this and the above documents would appear to endorse the application proposals.
VIEWPOINT A – TL 043 862
The development site as seen from a gap in the roadside hedgerows along the A605 – looking south-west towards Pilton church.
The development site is largely shielded from view by intervening hedgerows and hedgerow trees.

VIEWPOINT B – TL 041 864
At entrance to Oundle Town Rowing Club and riverside moorings
VIEWPOINT C – TL 038 867
The development site as seen from a single location on the public footpath NP1 at the former quarry field near Barnwell Mill Farm.
VIEWPOINT D – TL 039 859
Public footpath from Lilford Park to Barnwell Mill Farm at A605

The development site is shielded for the entire length of this footpath by intervening hedgerows and hedgerow trees and existing recent woodland planting.

Immediately adjacent to the site the public footpath NP1 is located to the east of the site boundary hedgerow that fulfills an effective screening function.
VIEWPOINT E – TL 028 868
public footpath from Stoke Doyle to Oundle Road to Stoke Doyle Rectory

The development site is shielded from view by intervening hedgerows and hedgerow trees.
VIEWPOINT F – TL 026 846

PILTON MANOR + PILTON TO STOKE DOYLE FOOTPATH

A combination of landform and intervening hedgerows and hedgerow trees shields the proposed development site from this location.
VIEWPOINT G – TL 034 851

PROPOSAL SITE AS SEEN FROM THE R.NENE
winter view looking north
FIGURE 1
SITE LOCATION PLAN + ZONE OF THEORETICAL VISIBILITY (ZTV)
n.t.s