



LOCATION

This area follows the course of the River Welland eastwards from Stamford in the west to Peakirk north of Peterborough.

CHARACTER SUMMARY

The stretch of the broad river valley can be divided into four sub areas within Peterborough as follows:

- Welland Valley Fringe - a very gently sloping open and low lying arable landscape with some transitional characteristics close to the boundary with the Nassaburgh Wooded Plateau.
- Maxey Cut and North Fen - a landscape of more recent origins following the creation of the artificial Maxey Cut and the draining of the North Fen area between Northborough and Market Deeping
- Maxey Island - a narrow band of slightly elevated ground on gravel soils
- Welland Floodplain - a narrow meandering floodplain which extends northwards across the Lincolnshire border. Pasture is fragmented by larger arable fields that run down to the river in many places

KEY CHARACTERISTICS

- Flat open farmland with gappy and fragmented hedgerows
- Ditches forming field boundaries within the largely arable

landscape

- Extensive areas of gravel extraction, mainly restored to lakes with fringing vegetation
- Villages generally with an historic core and some attractive stone buildings yet modern development is more prominent to the fringes
- Vegetation generally in linear belts, particularly along rivers, railways and drainage cuts/ditches
- The meandering River Welland forming the northern boundary
- Rich Neolithic landscape evident in crop marks on the Maxey Island

DISTINCTIVE FEATURES

- 3 major railway lines, including the east coast mainline
- Maxey Cut
- Glington Church
- Lolham Bridges

GEOLOGY AND SOILS

The geology of the River Welland floodplain and the Maxey Cut and North Fen sub areas is similar to the River Nene. It is formed on river alluvium with the overlying soils being stoneless clays and in places calcareous in nature with seasonally high groundwater (Fladbury 1 Association). In contrast the valley slopes and Maxey Island soils are well drained fine calcareous loamy soils (Badsey 2 Association) overlying river terrace limestone and lacustrine gravels. On the upper fringes of the valley towards Marholm there is a transitional area of seasonally waterlogged clayey soils (Denchworth Association).

TOPOGRAPHY

The topographical character of the valley changes from the west where it is more contained by modest slopes whereas to the east where the valley becomes much wider spreading and a very shallow valley feature.

DEGREE OF SLOPE

Along the Welland there is a very slack fall of c 1 in 800. Valley slopes may be as much as 1 in 50 but are more typically 1 in 100.

ALTITUDE RANGE

The valley falls from approximately the 20m contour east of Stamford to 5m at Peakirk in the east. Along the southern boundary with the Nassaburgh Limestone Plateau the land rises up to between the 25- 15m contour travelling from west to east. Within the wider and flatter valley bottom some of the older settlements e.g. Maxey may lie just 1-2m above the more open a drained farmland.

HYDROLOGY

To the west the Welland takes the form of a typical meandering river valley while the eastern section formed part of the delta system where the water course split into a number of channels divide by gravel islands. Market Deeping was protected from flooding by the creation of the embanked Maxey Cut after WWII. The associated cuts and drains have also opened up the wider cultivation of the area. The course of the original Welland now forms the boundary with Lincolnshire to the north along part of its length and also splits into a couple of channels along this length with the other within Lincolnshire. The original watercourse is now much smaller along this section and unlike the Nene is not navigable. The extraction of extensive areas of gravel particularly around Maxey, (and Tallington in neighbouring Lincolnshire), has led to the creation of a number of large water bodies as part of the restoration of the sites due to the high water table. Further restoration to extensive areas of water is not favoured by RAF Wittering due to the attraction of large flocks of birds which might conflict with aircraft flight paths.

LAND COVER AND LAND USE

The major land use is a mix of arable with potatoes and sugar beet, some of which is supported by irrigation. Hedges are

mainly clipped and gappy with few hedgerow trees. A number of other boundaries are marked by ditches many of which are permanently wet. Flood meadows are comparatively fewer along the Welland compared to the Nene. Other areas of grassland and pasture are generally located closer to the villages, in particular around Bainton, Ashton and north of Peakirk. More fragmented stretches of pasture remain adjacent to the River Welland and the Maxey Cut. There is minimal ancient and semi natural woodland cover in the valley. The main trees cover is provided around the fringes of the restored mineral sites, consisting mainly of willow and poplars. Other lines of vegetation follow the streams and rivers including meandering River Nene, railways or wrap around parts of the village perimeters. As a result of sand and gravel extraction there are substantial areas of open water near Lolham and Maxey. These support wildfowl that unfortunately are viewed as a hazard by RAF Wittering to the flight path of aircraft. As a result further areas of extensive open water are not favoured.

River Welland. (B Robinson) •



BIODIVERSITY

The Welland Valley does not appear to be as varied in its habitat composition as the River Nene, as it runs mostly through arable land. There are no nationally designated sites within this LCA, although there are 12 County Wildlife Sites that fall wholly or partially within the area. Pollarded willows and gravel pits are a feature of the area however, and are important habitat types.

The gravel pits are a relatively recent habitat type, but support many typical wetland species and are particularly notable for birds and invertebrates. Bainton Pits and Maxey Quarry CWSs are the largest complexes of gravel pits, and each former pit within these areas has developed its own

habitat composition, mainly through natural colonisation. Pollarded willows can be found at Ashton Meadows and Hedges, Hermitage Field and Paradise Willows CWSs but are declining in number. Paradise Willows CWS has the largest number of mature willow pollards in this LCA. Old oak pollards survive also survive in association with grasslands e.g. Woodcroft Lodge Parkland in the transitional area closer to the Nassurbugh Limestone Plateau.

Otters, Water Voles and Barn Owls are all likely to occur in this character area with a large number of invertebrates, reptiles and amphibians also having been recorded, particularly along the routes of railway lines such as the East Coast Mainline which is a CWS.

HISTORICAL AND CULTURAL SIGNIFICANCE

There are extensive buried remains of prehistoric settlement and religious activity throughout this area, including nationally rare categories of monument such as Neolithic causeways enclosures and cursus monuments. Large areas are blanketed by alluvial silts that have ensured exceptional archaeological preservation. Though not usually easily visible on the ground without excavation, the remains are often reflected in spectacular crop mark patterns that are visible from the air.

There are many Roman farmstead and villa sites throughout the area. They are linked by a network of ditched trackways and field systems that cover the Welland terraces. Car Dyke Roman canal runs through Peakirk and to the east of Northborough towards the Welland. It is in-filled in Area 3, but its line is marked by earthworks (Scheduled) and crop marks. The original purpose of Car Dyke is not known. It may have been excavated as a transport canal, a catchwater drain, or an administrative boundary, and could have combined of all these purposes. It is an exceptional Roman engineering work, a striking component of the local landscape, and nationally unique.

There is a moated manorial site at Maxey and impressive fortified medieval residences survive south-east of Helpston (Woodcroft Castle) and at Northborough. Northborough Manor, built by the De La Mare's in the 14th century, was later owned by John Claypole who married Oliver Cromwell's daughter Elizabeth. It became the home of Oliver Cromwell's widow in her final years.

The cottage given to John Clare the poet on his return to the area still stands in Church Street Northborough. The countryside, wildlife, and people of the locality (Area 2 and Area 3) provided the inspiration for much of his work.

FIELD PATTERN

The ancient drainage pattern of the Welland River, which comprised a network of shifting and meandering channels, was confined to a single meandering channel, and a series of straight drainage ditches during late medieval and post-medieval times. This allowed the creation of the rectilinear field pattern that characterises much of the area.

Areas of ancient (pre-parliamentary act) enclosure surround each of the villages, the largest of which are at Bainton and

Maxey. Many old field boundaries survive in the area. Earthwork remains of medieval field systems ('ridge and furrow') survive at several places, notably at Bainton and in smaller pockets of pasture at Etton and Glington.

TRANSPORT PATTERN

The A15 runs through the eastern section of the area along a modern road bypassing the original alignment of the Lincoln Turnpike which ran through Glington, Northborough and Market Deeping. The B1443 skirts to the south of the character area on the valley slopes linking Peterborough to Stamford otherwise other roads are relatively minor and run north south forming crossing points of the River Welland. One of these routes 'King Street', originally a Roman road, is carried over the Welland channels and surrounding low-lying land by Lolham Bridges, a series of low arches that form part of a long causeway that runs north from Helpston to West Deeping. Lolham Bridges are mostly 17th and 18th century in date, and are protected as a single Scheduled Monument. There is another historic crossing point into the Deepings and Lincolnshire at Deeping Gate, where a fine 17th century stone bridge carries the present minor road. The area contains three railway routes with the most significant being the east coast mainline and other routes to Lincoln and Leicester. The level landscape means that a number of signal boxes and level crossings are retained. The Welland was used as a navigable river by the Vikings who sailed inland to sack the monastery at Peterborough and also reach Stamford.

SETTLEMENT AND BUILT FORM

There are a number of nucleated villages within the Welland Valley occupying slightly higher ground above the floodplain however there are few isolated farms in the otherwise open landscape. All of the villages are medieval or earlier in origin and are centred around a single nucleus. Maxey sits on a low

- Manor House, Northborough (TLP)



area 3

gravel island that was formerly surrounded by stream courses and marshy land. Historically, Maxey has been unusually poly-focal. The Norman church, now detached, evidently was one focus. The High Street and Castle End form other foci, and there were detached medieval settlements at Lolham and Nunton. Deeping Gate, located south of Market Deeping is strung out along the south bank of the Welland and historic houses front the river, within long narrow plots that run southwards. Bainton developed as market point between Ufford and Tallington in Lincolnshire and the Market Cross is still present. Peakirk's layout has been similarly dependent on a watercourse. The name Peakirk derives from 'Pega's Kirk' after St Pega the sister of the founder of nearby Crowland Abbey who had a cell. The site of a hermitage lies to the north of the village while its main street follows the course of Car Dyke a Roman canal. Two of the settlements, Glinton and Northborough have experienced more residential growth in the 20th century than the remainder that have remained tighter to the historic core. There are a number of good vernacular buildings reflected many built from the local warm coloured limestone and roofed in a mix of Collyweston slate and some thatch. The church at Glinton was noted as a landmark by John Clare who wrote, 'Glinton thy taper spire predominates, Over the landscape and the mind'.

VISUAL AND SENSORY PERCEPTION

The valley landscape has an open character where woodland cover is sparse. Strong linear features in the form of roads, railways and the associated overhead cables, electricity pylons and artificial embanked drains traverse the area. The number of level crossings and few bridges means the railway is a major barrier to movement. There are pockets of more enclosed landscape around some of the villages and water bodies but otherwise the aspect is exposed and at times bleak giving the feeling of a transitional area or one in need of improvement and a stronger identity. Visual and audible impact arises from the A15 and the railways including the fast moving east coast mainline. There are some modern landmarks such as the gas works south of Glington and there are a few locations where large scale built development to the fringes of the character areas is prominent both during the day and night due to lighting e.g. the industrial areas along Lincoln Road in Peterborough. There are more isolated detractors e.g. the poultry farm at Lolham and the perimeter of the active gravel extraction site south east of Maxey. Elsewhere the impact of 20th century development is generally restricted to the fringes of the villages. The residential edges of Peterborough and Market Deeping are visually contained from the Welland Valley landscape.

RECREATIONAL OPPORTUNITIES

This is a predominantly an agricultural landscape but also provides a number of informal recreational opportunities. These include fishing on the water bodies associated with the restored mineral sites. The Torpel Way runs into the Welland Valley between Bainton to Stamford, however there is no recognised route that follows the remainder of the old course of the Welland to the east. There are a few rights of way that follow old drove roads through North Fen connecting to the Welland and a number of routes that follow close to but not directly along the Maxey Cut. The Peakirk Wildfowl Trust site based on the former duck decoy has now closed.

- Bainton Pits (TLP)



3a WELLAND VALLEY FRINGE

Strength of Character = Moderate

The area has on balance a moderate strength of character however there are a number of aspects that are weak. It is the openness to views both from within and outside the area and the lack of enclosure which create a relatively indistinct character. The strongest aspect is the importance of cropping but the landscape framework in which this sits is poorly defined.

Condition = Moderate

This is considered a largely average area. Although much of the arable landscape has poor value in biodiversity terms there is some local value in the hedged pasture and enclosed landscape between Bainton and Ashton and the areas associated with the restored mineral workings.

Landscape Strategy = Improve and Conserve

The interrupted nature of the cultural and ecological landscape pattern is in need of improvement by creating new corridors. These could involve new hedges and field margins linked to historic boundaries or rights of way. Improved links from the Nassaburgh Limestone Plateau northwards towards Maxey Island and the River Welland together with addition spokes of the Green Wheel in similar directions should be encouraged.

Sensitivity

The ecological sensitivity of the Welland Valley Fringe sub area is overall very low, while the cultural sensitivity is moderate. The relatively level topography means in visual

terms the visual sensitivity is moderate however due to the open character the impact of any built development would be significant not only within the area but also possibly seen from the more sensitive Nassaburgh Limestone Plateau to the north.

- Welland Valley Fringe (TLP)



STRENGTH OF CHARACTER

<i>Impact of landform:</i>	apparent
<i>Impact of land cover:</i>	prominent
<i>Impact of historic pattern:</i>	apparent
<i>Visibility from outside:</i>	widely visible
<i>Sense of enclosure:</i>	open
<i>Tranquillity:</i>	moderate
<i>Distinctiveness/rarity:</i>	frequent

CONDITION

<i>Land cover change:</i>	localised
<i>Age structure of tree cover:</i>	mature
<i>Extent of semi-natural habitat survival:</i>	scattered
<i>Management of semi-natural habitat:</i>	not obvious
<i>Survival of cultural pattern:</i>	interrupted
<i>Impact of built development:</i>	moderate
<i>Visual unity:</i>	coherent

CONDITION	GOOD	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	MODERATE	Improve and reinforce	Improve and conserve	Conserve and restore
	POOR	Reconstruct	Improve and restore	Restore condition to maintain character
		WEAK	MODERATE	STRONG
		STRENGTH OF CHARACTER		

3b MAXEY CUT AND NORTH FEN**Strength of Character = Moderate**

The area has on balance a moderate strength of character with only the sense of enclosure considered weak. The presence of the strongly embanked Maxey Cut and local associated features e.g. the Lolham Bridges together with a number of wetland sites e.g. at Peakirk and other restored mineral sites create a relatively more distinctive landscape than on the adjacent valley slopes. There is also a more enclosed pattern north of Northborough.

Condition = Moderate

Condition is overall considered average. Although much of the arable landscape has poor value in biodiversity terms there is local value in the restored mineral workings. There are currently few detractors arising from built development.

Landscape Strategy = Improve and Conserve

As with the Welland Valley Fringe the interrupted nature of the cultural and ecological landscape pattern needs improving though the creation of ecological and access corridors. These could involve new hedges and field margins particularly perpendicular to the Maxey cut whose potential for a new recreational corridor should also be explored.

Sensitivity

The ecological sensitivity of the Maxey Cut and North Fen sub area is overall low, while the cultural sensitivity is moderate. The level topography means the visual sensitivity is moderate however due to the open character the impact of any built development would be significant.

- Maxey Cut (TLP)

**STRENGTH OF CHARACTER**

<i>Impact of landform:</i>	prominent
<i>Impact of land cover:</i>	prominent
<i>Impact of historic pattern:</i>	apparent
<i>Visibility from outside:</i>	locally visible
<i>Sense of enclosure:</i>	open
<i>Tranquillity:</i>	moderate
<i>Distinctiveness/rarity:</i>	unusual

CONDITION

<i>Land cover change:</i>	localised
<i>Age structure of tree cover:</i>	mixed
<i>Extent of semi-natural habitat survival:</i>	scattered
<i>Management of semi-natural habitat:</i>	good
<i>Survival of cultural pattern:</i>	interrupted
<i>Impact of built development:</i>	low
<i>Visual unity:</i>	coherent

CONDITION	GOOD	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	MODERATE	Improve and reinforce	Improve and conserve	Conserve and restore
	POOR	Reconstruct	Improve and restore	Restore condition to maintain character
		WEAK	MODERATE	STRONG
STRENGTH OF CHARACTER				

3c MAXEY ISLAND**Strength of Character = Moderate**

The narrow finger of Maxey Island has a number of strong features including the extensive presence of archaeological remains, water bodies and fringing tree belts relating to former mineral extraction. Extraction still continues south east of the Maxey village. Both Maxey and Northborough villages have strong historic cores. However the arable landscape has suffered from the decline in hedgerows and there are minimal hedgerow trees.

Condition = Moderate

There has been widespread land cover change as a result of mineral extraction however the impact of built development is more limited.

Landscape Strategy = Improve and Conserve

Landscape development on the island needs to emphasize the character of this historic landscape set above the former floodplains. There is also scope to develop new wet woodland habitat with the restoration of existing extraction sites in preference to open water. The conservation and interpretation of the historic environment should also be a priority for the area.

Sensitivity

The ecological sensitivity of the Maxey Island is considered low in terms of historic ecological patterns however the presence of new habitats through

restored sites raises the sub area to moderate. The historic environment is considered moderate since while there are a number of archaeological remains there has also been considerable disturbance due to minerals. The landform is level giving a moderate visual sensitivity but this is locally less due to the presence of linear screening belts.

• Maxey Church (B.Robinson)

**STRENGTH OF CHARACTER**

<i>Impact of landform:</i>	apparent
<i>Impact of land cover:</i>	apparent
<i>Impact of historic pattern:</i>	prominent
<i>Visibility from outside:</i>	locally visible
<i>Sense of enclosure:</i>	partial
<i>Tranquillity:</i>	tranquil
<i>Distinctiveness/rarity:</i>	unusual

CONDITION

<i>Land cover change:</i>	widespread
<i>Age structure of tree cover:</i>	mixed
<i>Extent of semi-natural habitat survival:</i>	scattered
<i>Management of semi-natural habitat:</i>	not obvious
<i>Survival of cultural pattern:</i>	interrupted
<i>Impact of built development:</i>	low
<i>Visual unity:</i>	coherent

CONDITION	GOOD	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	MODERATE	Improve and reinforce	Improve and conserve	Conserve and restore
	POOR	Reconstruct	Improve and restore	Restore condition to maintain character
		WEAK	MODERATE	STRONG
STRENGTH OF CHARACTER				

3d WELLAND FLOODPLAIN**Strength of Character = Moderate**

The meandering floodplain of the Welland forms a narrow strip of land to the northern boundary of the authority. Where floodplain meadows are present particularly to west close to Stamford and around Lolham Mill, where there are good tree belts and enclosure, the character is locally stronger. However in other sections where arable cropping extends to the river the floodplain character is weaker. The sense of tranquilly however is strong.

Condition = Moderate

Where the character is stronger the elements are generally in better condition. The river also provides a unifying and linking habitat through the sub area. However landcover change to arable has weakened the condition of sections of the corridor. The impact of built development is very limited.

Landscape Strategy = Improve and Conserve

The emphasis should be to provide a stronger sense of connectivity between the habitats along the full length of the river. This should involve retaining the meadows and riparian tree belts and targeting arable conversion back to pasture.

Sensitivity

The ecological sensitivity of the corridor is moderate; however it has the potential to improve with greater connectivity between meadows. The historic environment is considered moderate. The enclosed low lying nature of the landform means the visual sensitivity is low.

- River Welland (TLP)

**STRENGTH OF CHARACTER**

<i>Impact of landform:</i>	apparent
<i>Impact of land cover:</i>	apparent
<i>Impact of historic pattern:</i>	apparent
<i>Visibility from outside:</i>	concealed
<i>Sense of enclosure:</i>	partial
<i>Tranquillity:</i>	tranquil
<i>Distinctiveness/rarity:</i>	unusual

CONDITION

<i>Land cover change:</i>	localised
<i>Age structure of tree cover:</i>	mature
<i>Extent of semi-natural habitat survival:</i>	linked
<i>Management of semi-natural habitat:</i>	not obvious
<i>Survival of cultural pattern:</i>	interrupted
<i>Impact of built development:</i>	low
<i>Visual unity:</i>	unified

CONDITION	GOOD	Strengthen and reinforce	Conserve and strengthen	Safeguard and manage
	MODERATE	Improve and reinforce	Improve and conserve	Conserve and restore
	POOR	Reconstruct	Improve and restore	Restore condition to maintain character
		WEAK	MODERATE	STRONG
STRENGTH OF CHARACTER				

COUNTRYSIDE MANAGEMENT

Generally

- Promote plant species in accordance with the Cambridgeshire Landscape Guidelines and use of local provenance wherever possible
- Strengthen the distinction between the valley fringe, Maxey Cut, Maxey Island and the Floodplain
- Promote sympathetic improvement to village entrances and fringes screening local eyesores and framing local landmarks e.g. churches
- Encourage the reversal of habitat fragmentation and the creation and improvement of habitat links to create eco-corridors starting from existing stream lines, ditches and hedgerows
- Promote uncropped or grass field margins to enhance biodiversity linkage within and outside the area. Margins to follow existing and proposed rights of way where possible
- Identify and encourage the provision of additional rights of way and extensions to the Green Wheel network to give improved access within the area and between the Nassaburgh Limestone Plateau and Torpel Way to the Welland Valley to the north
- Ensure right of way signage is clear but appropriate to the location using local materials where possible

3a Welland Valley Fringe

- Promote the retention, restoration and planting of hedges and hedgerow trees within open landscape to provide additional structure while still retaining vistas across the valley. Pattern to follow historic field boundaries where possible
- Promote the appropriate management of existing woodland to retain indigenous broadleaves, using coppicing where possible to establish a rich ground flora
- Encourage the retention of grassland and field trees and promote extensions of grassland habitats and new planting where suitable
- Promote both the creation of new ponds and the retention / enhancement of existing ponds
- Promote additional woodland planting to the south east of the area to screen large scale industrial units on the edge of Peterborough as seen from the Welland Valley and the Nassaburgh Limestone Plateau around Marholm

3b Maxey Cut and North Fen

- Explore greater use of the Maxey Cut embankments for enhanced public access
- Promote the active management of restored gravel pits at Bainton and Maxey to benefit biodiversity and to balance with fishing and other quiet recreational activities.
- Promote wet woodland and reeds as restoration technique for active mineral sites

3c Maxey Island

- Promote the active management of restored gravel pits at Bainton and Maxey to benefit biodiversity and to balance with fishing and other quiet recreational activities.

- Promote wet woodland and reeds as restoration technique for active mineral sites
- Protect important historic landscape and archaeological sites from damage
- Promote the archaeological interpretation of the area

3d Welland Floodplain

- Improve the legibility of the river corridor in the valley
- Protect existing flood meadows from ploughing or improvement
- Encourage continued management of flood meadows by grazing but balance with providing suitable Otter habitat adjacent to the riverbank
- Promote improvements to the river, water edge and pond habitats to encourage increased biodiversity value through marginal planting and localised bank profiling and sympathetic maintenance of drainage ditches
- Continue to manage the floodplain pollards and promote the planting of new specimens
- Encourage reversion of areas of arable to pasture within floodplain to create improved connectivity between existing areas of meadow with the aim of achieving continuity along the floodplain
- Identify locations for improvements to the right of way network including new routes to create a Welland Valley route that follows the river more closely

Guidelines in relation to development

- Protect the historic setting and structure of the villages including views to the villages and the retained open spaces within them
- Ensure development or restoration in the historic parts of villages uses indigenous materials or equally visually acceptable alternatives to maintain and enhance the character of the existing villages
- New development adjacent to existing villages to concentrate on locations at Glington and Northborough
- Promote improvements in and around villages to the perimeter and wider setting to improve visual quality and to maintain separation from adjacent settlements and northern edge of Peterborough
- Ensure future built development in and adjacent to Peterborough is screened from adjacent rural landscape to the north and west
- Potential future mineral extraction to be carefully evaluated against historic value of landscape. If future extraction is on balance acceptable restoration measures to provide additional accessible green space and wet woodland
- Ensure that any development considered appropriate in the open countryside is carefully assimilated into the open landscape character. Building forms, materials and landscape proposals are to be sympathetic to the existing character
- Prevent development that could detract from local landmarks including village churches
- Conserve the rural character of secondary roads and limit urbanising influences such as widening, kerbing and lighting