



# Greater Birmingham HMA Strategic Growth Study

# **Appendices**

**Greater Birmingham & the Black Country** 

A Strategic Growth Study into the Greater Birmingham and Black Country Housing Market Area

February 2018

### Prepared by

GL Hearn 280 High Holborn London WC1V 7EE

T +44 (0)20 7851 4900 glhearn.com

Wood Plc Gables House Leamington Spa CV32 6JX

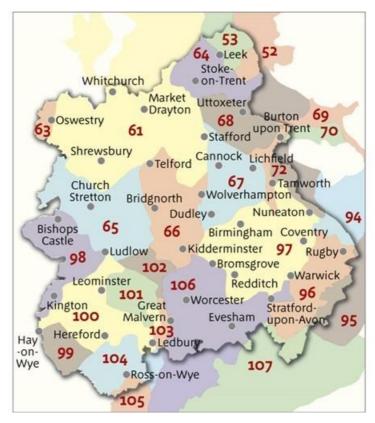
T +44(0)1926 439000 woodplc.com

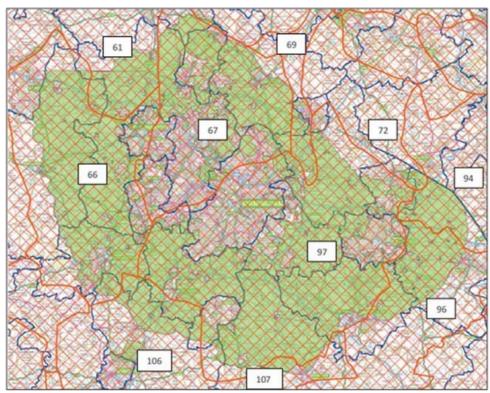
# Contents

APPENDIX A:	NATIONAL CHARACTER AREA PROFILES	3
APPENDIX B:	SECTOR ANALYSIS	15
APPENDIX C:	STRATEGIC SUSTAINABILITY APPRAISAL FRAMEWORK	47
APPENDIX D:	AREA OF SEARCH APPRAISAL	61
APPENDIX E:	DEVELOPMENT MODEL APPRAISAL	272

GL Hearn Page 2 of 302

APPENDIX A: National Character Area Profiles





GL Hearn Page 3 of 302

#### 61. Shropshire, Cheshire and Staffordshire Plain

The Shropshire, Cheshire and Staffordshire Plain National Character Area (NCA) comprises most of the county of Cheshire, the northern half of Shropshire and a large part of north-west Staffordshire. This is an expanse of flat or gently undulating, lush, pastoral farmland, which is bounded by the Mersey Valley NCA in the north, with its urban and industrial development, and extending to the rural Shropshire Hills NCA in the south. To the west, it is bounded by the hills of the Welsh borders and to the east and south-east by the urban areas within the Potteries and Churnet Valley, Needwood and South Derbyshire Claylands, and Cannock Chase and Cank Wood NCAs. A series of small sandstone ridges cut across the plain and are very prominent features within this open landscape. The Mid-Cheshire Ridge, the Maer and the Hanchurch Hills are the most significant. They are characterised by steep sides and woodland is often ancient semi-natural woodland which is notably absent from the plain, except around Northwich. The landscape character of the plain owes much to its glacial origins. A thick layer of glacial till covers the lower slopes of the ridge and the surrounding plain and is punctuated by numerous ponds and meres. Subsequent colonisation by vegetation has resulted in the establishment of large areas of bog, known as mosses. Some are associated with the development of schwingmoor which is an advancing, floating raft of bog moss. The meres and mosses of the north-west Midlands form a geographically discrete series of nationally important, lowland open water and peatland sites; the finest examples are considered to be of international importance. The NCA is important for food production. Throughout the plain, the water retention and fertility of the clay soils support lush pastures for grazing dairy cattle. There are a number of dairy processors making a range of dairy products that include ice cream and Cheshire cheese. The lighter soils in Staffordshire and parts of Shropshire support more mixed farms, combinable crops and potatoes in rotation. The NCA contains several significant flood plains. Its flat, low-lying basins carry meandering stages of ten main rivers, a number of which have sections notified as Sites of Special Scientific Interest for their nationally important geomorphological features or clough woodland and wetland habitats important to birds and insects. A section of the River Dee that flows north along the western boundary of the area is designated as a Special Area of Conservation for its vegetation communities and populations of Atlantic salmon, lamprey species, bullhead and otter. The presence of large conurbations and the dense network of roads mean that development pressures are likely to continue. Road improvements risk the urbanisation of rural villages. The demand for mineral extraction sites and in-fill sites for waste disposal from the conurbations is likely to increase and, as the population increases, the demand for food will increase. Development will also increase water demand which, together with the effects of climate change, potentially threatens the internationally important peat wetland habitats of the NCA in terms of water availability and water quality, compounding the effects of climate change. These pressures have the potential to further fragment habitats and change settlement patterns and the vernacular, but can also provide opportunities to create a high-quality built environment with multifunctional greenspace with links to the rural area.

- Extensive, gently undulating plain, dominated by thick glacial till from the late Pleistocene Period, producing productive, clay soils and exemplifying characteristic glacial landforms including eskers, glacial fans, kettle holes, moraines and a landscape of meres and mosses.
- Prominent discontinuous sandstone ridges of Triassic age, characterised by steep sides and freely
  draining, generally infertile soil that supports broadleaved and mixed woodland.
- Few woodlands, confined to the area around Northwich and to estates, cloughs and deciduous and mixed woods on the steeper slopes of the wind-swept sandstone ridges. Locally extensive tracts of coniferous woodland and locally distinctive orchards scattered throughout.
- Strong field patterns with generally well-maintained boundaries, predominantly hedgerows, with dense, mature hedgerow trees. Sandstone walls occur on the ridges and estate walls and Cheshirestyle (curved topped) metal railing fences occur locally on estates in Cheshire.
- Dairy farming dominates on the plain, with patches of mixed farming and arable in the north and large areas in the south-east.
- Diversity of wetland habitats includes internationally important meres and mosses comprising lowland raised bog, fen, wet woodland, reedbed and standing water, supporting populations of a host of rare wildlife, including some species of national and international importance.
- Rich archaeological evidence of iron-age hill forts concentrated on the sandstone ridges and the Weald Moors. Remnant ridge and furrow and moated houses are features of the plain. The Roman

GL Hearn Page 4 of 302

- road, Watling Street, crosses the plain linking London to Wales via Wroxeter. Chester was an important Roman settlement.
- Regularly spaced, large farmsteads, dispersed hamlets, market towns and many other settlements
  including Macclesfield and Telford. Timber-frame buildings are a distinctive feature of the plain, often
  highly decorated in Cheshire, for example, the moated Little Moreton Hall. The historic towns
  including Stafford, Shrewsbury and the city of Chester have a wealth of 17th- and 18th-century halftimber, brick and red sandstone buildings.
- Parklands and gardens associated with estates such as Chillington, Trentham, Tatton and Attingham; country houses such as Gawsworth Hall, Arley Hall and Adlington Hall; and fortified manor houses and castles such as at Shrewsbury, Stafford, Beeston, Acton Burnell and Cholmondeley.
- Nationally important reserves of silica sand and salt. Active extraction of salt has developed a locally distinctive landscape of subsidence flashes, particularly around the area of Sandbach. Adjacent to these saline flashes are areas of salt marsh rarely found at inland sites.
- The numerous canals are important for recreation as well as habitat.
- Several National Cycle Routes and nearly 5,000 km of public rights of way cross the plain. Six National Nature Reserves (NNRs) are scattered throughout, close to large population centres and well used for recreation.

Source: NE556: NCA Profile: 61 Shropshire, Cheshire and Staffordshire Plain

#### 66. Mid Severn Sandstone Plateau

The Mid Severn Sandstone Plateau National Character Area (NCA) is located in the central catchment of the Severn and the lower Stour rivers and is a national watershed between the north- easterly flowing River Trent and the south-westerly flowing River Severn. The Mid Severn Sandstone Plateau is predominantly rural and important regionally for food production, with large arable fields in the central and eastern areas, and remnant areas of characteristic lowland heathland. Parklands provide an estate character in places, as exemplified by Weston Park. The plateau is drained by fast-flowing tributaries of the rivers Worfe and Stour which have incised the Permian and Triassic sandstones and conglomerate resulting in many steep-sided. wooded dingles throughout the NCA. The main river is the fast-flowing Severn, entering the NCA through the Ironbridge Gorge. The NCA exemplifies the link between geodiversity, landscape and industrial heritage, in particular at the Ironbridge Gorge, a World Heritage Site widely recognised as the birthplace of the Industrial Revolution. During the 18th and 19th centuries, the area around the Severn Valley was recognised as being rich with raw materials: coal; iron ore; limestone to flux the slag in the blast furnaces; sand for moulding cast iron; clay to make tiles, bricks and refractory linings; and the finest clay used for the manufacture of porcelain at Coalport. The world's first iron bridge, constructed in 1779 by Abraham Darby III, spans the River Severn in the steep-sided, wooded gorge that belies its industrial past. The NCA is regionally important for water supply. Two reservoirs, at Chelmarsh and Trimpley, store water that is abstracted from the River Severn, and the Sherwood Sandstone aguifer underlies the eastern part of the NCA. The Elan Valley agueduct crosses the NCA, supplying water to Birmingham from the valleys in Wales. Wyre Forest National Nature Reserve and Site of Special Scientific Interest is a remnant of a once vast wildwood and one of the largest ancient lowland oak woods in England. It hosts nationally important populations of many wildlife species and also has features of historical and archaeological interest. The M54 and a railway line cross the NCA, broadly following the route of the Roman road Watling Street. The Staffordshire and Worcestershire Canal, Monarch's Way long-distance footpath and National Cycle Network Route 45 also cross the NCA. Development pressures for land on the urban fringe and commuter villages in the core of the NCA will continue and the demand for water and food provision is likely to increase, presenting challenges for habitat conservation and sustainable recreation, given the proximity of this area to urban populations. In the Black Country urban areas, the demand placed on the health and community services is likely to increase, as the magnitude of climate change increases. Extreme weather events such as floods have clear impacts on ecosystems and the services that they provide and also on infrastructure adjacent to rivers, for example at Bewdley. Climate change may also alter the severity and frequency of periods of drought, presenting challenges to agriculture on the plateau. Extensive sandstone plateau in the core and east of the NCA underpins an undulating landscape with tree-lined ridges; this contrasts with the irregular topography and steep, wooded gorges of the Severn Valley in the west.

GL Hearn Page 5 of 302

- Plateau underlain by Permian and Triassic sandstones and conglomerate from the Sherwood Sandstone Group forming an important aquifer. Silurian limestones and Carboniferous Coal Measures of the Coalbrookdale and Wyre Forest coalfields in the west provide the source of mineral wealth which fuelled the Industrial Revolution.
- Permian and Triassic sandstones erode to free-draining, slightly acid mineral soils which historically supported extensive heathland and grassland. In contrast, marls and sandstones associated with Coal Measures erode to clayey (argillic) brown earth soils.
- The plateau is drained by the rivers Worfe and Stour and fast-flowing streams in small wooded, steep-sided streamside dells, locally known as dingles.
- The main river is the fast-flowing Severn, flowing north to south in the west of the NCA, often through steep, wooded gorges, the largest being the Ironbridge Gorge.
- Interlocking blocks of mixed woodland and old orchards provide a well-wooded landscape and conifer plantations combine with parklands to give an estate character. Wyre Forest is part of one of the largest ancient lowland oak woods in England.
- Large, open arable fields with a weak hedgerow pattern on the plateau contrast with mixed arable and pasture land with smaller, irregular shaped fields bounded by hedgerows with hedgerow oaks in the west.
- Characteristic lowland heathland associated with acid grassland and woodland supports nationally important populations of flora and fauna, notably butterflies including the pearl-bordered fritillary.
- Post-industrial sites, disused coal mines and mineral quarries are important habitats around Telford and urban areas in the Black Country and are becoming increasingly important because of their dwindling number.
- Rich and important heritage assets have led to World Heritage status for Coalbrookdale and Ironbridge, the birthplace of the Industrial Revolution.
- Traditional buildings constructed of brick vary in colour. The local Kidderminster and Bromsgrove Sandstone features extensively. Its characteristic red colouration provides local distinctiveness to many towns and villages and estate boundary walls.
- The Stour and Severn valleys contain frequent villages and there are a number of attractive historic towns, for example Bridgnorth and Bewdley with cores of Georgian and earlier buildings; there are fine individual examples of timber-framed buildings in Kinver, Bewdley and Bridgnorth.
- There is a coalfield remnant landscape along the Severn Valley.
- Important manmade features include the Roman road Watling Street, the Staffordshire and Worcestershire Canal, the M54 and the railway line that links the urban areas of Birmingham and the Black Country in the east with Shrewsbury in the neighbouring NCA in the west.

Source: NE472: NCA Profile: 66 Mid Severn Sandstone Plateau

#### 67. Cannock Chase and Cank Wood

Cannock Chase and Cank Wood National Character Area (NCA) extends north of the Birmingham and Black Country conurbation and includes a major area of this city. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The NCA principally coincides with the historical hunting forest of Cannock Chase, with major remnants surviving within the Cannock Chase Area of Outstanding Natural Beauty (AONB), which supports internationally important heathland Special Areas of Conservation (SAC) and the Sutton Park National Nature Reserve. There are no major rivers within the area, but canals are a significant feature and some major transport routes also cross the NCA. The current landscape is extremely varied, including extensive areas of urban development predominantly in the south of the NCA and extensive conifer plantations and heathlands in the north interspersed with farmland. The Forest of Mercia, a Community Forest, lies in the heart of the NCA. The NCA also has some outstanding geodiversity interest, extensive industrial archaeology and a good number of historic parks. In addition to the ecosystem services of food and timber production, the NCA has an extensive rights of way network and areas of open access land offering good recreational opportunities to the surrounding population. Recreational use of the Cannock Chase SAC is of some concern and needs to be managed to ensure that future housing development does not harm the biodiversity interest of the site. Changes as a result of development have

GL Hearn Page 6 of 302

been significant within the NCA for many years and are likely to continue. This provides opportunities for enhancing both the landscape quality and biodiversity value through green infrastructure and through continued initiatives such as the Forest of Mercia and the Cannock Chase AONB<sup>1</sup>.

- A varied landscape ranging from the open heathlands and plantations of Cannock Chase, through towns, reclaimed mining sites and new developments, to dense urban areas.
- The dominant rounded central plateau is mainly formed of the Coal Measures of the South Staffordshire Coalfield, with other prominent hills in the south at Wren's Nest, Castle Hill, Rowley Hills and Barr Beacon.
- Extensive coniferous plantations, woodlands and historic parklands occur across the NCA, even within the urban areas where they are predominantly small and include lots of young plantations.
- Away from the unenclosed landscape of Cannock Chase, fields generally have a regular pattern and
  are frequently enclosed by mature hedgerows with some hedgerow trees. Here farming is generally
  mixed with arable cultivation in large fields. Livery is concentrated around the flanks of the Chase.
- Heathland and associated acid grassland were once much more extensive, although significant tracts still remain. Post-industrial sites and remnant countryside within the urban areas provide a mosaic of additional valuable habitats.
- The major rivers of the Trent and Tame lie adjacent to the NCA, both of which lie in broad flood
  plains. Streams and small rivers such as the Sow and the Penk drain radially from the higher ground
  into these rivers.
- The canal network is a notable feature and contributes significantly to the drainage pattern.
- Industrial archaeology from the industrial revolution is a characteristic feature.
- The predominant building material of the 19th- and early 20<sup>th</sup> century buildings is red brick, with more modern structures within the urban areas.
- The settlement pattern is complex and contrasting, with some areas densely populated and others relatively sparse. The conurbation includes a mosaic of urban areas, former industrial land and patches of farmland, with an extensive urban fringe.
- The extensive networks of canals and railways reflect the industrial history of the area. Major roads include the M6, the M6 Toll and the A5.

Source: NE347: NCA Profile 67 Cannock Chase and Cank Wood

#### 69. Trent Valley Washlands

The Trent Valley Washlands National Character Area (NCA) comprises the river flood plain corridors of the middle reaches of the River Trent's catchment in the heart of England. It is a distinctly narrow, linear and low-lying landscape, often clearly delineated at its edges by higher ground, and it is largely comprised of the flat flood plains and gravel terraces of the rivers. A washland is described as an area of flood plain that is allowed to flood or is deliberately flooded for flood management purposes. Thus the Trent Valley Washlands are strongly defined by the riverine environment and periodic inundation. The key ecosystem services provided are related to water, its availability and regulation of flow. Thick superficial deposits of alluvium and river terrace gravels dominate the Washlands' geology. Variations in these, the resultant soils and the differences in elevation above and below flood levels have determined both settlement pattern and agricultural land use. Arable crops are by and large located on the freely draining soils of the river terraces and on the higher ground where fields are big and hedgerows are small with few trees. Pastoral farming generally takes place on the river flood plains, where soils are subject to frequent flooding or are naturally wet. Here fields are usually smaller and the hedgerows fuller with more tree cover. Overall woodland cover in the Washlands is very limited, although riparian trees, especially willows, provide an important component of the landscape. The broad rivers, their riparian vegetation and the semi-natural parts of the flood plain form the main habitats of the Washlands, with flooded former gravel extraction sites introducing new wetland habitat into the area. Characteristic species are those associated with these wetlands such as grey heron, lapwing and kingfisher. The rivers have attracted humans from the earliest times, especially the gravel

GL Hearn Page 7 of 302

-

<sup>&</sup>lt;sup>1</sup> Impacts of development on the Cannock Chase SAC need to be assessed and appropriately mitigated for to ensure that no harm arises to this highly protected area. The Cannock Chase SAC Partnership will need to be engaged at the earliest opportunity.

terraces and crossing points. Traditional buildings are typically made of red brick with clay plain tile roofs with the occasional survival of some earlier timber-framed structures, while grander dwellings and churches are often built from sandstone. A unifying thread throughout the Washlands is provided by the rivers, their flood plain tracts of pasture and the bordering higher ground; however, it is also a landscape that is heavily fragmented and intruded upon by modern built development, communication and transport infrastructure. It is greatly influenced by past and present industry, from energy generation to aggregate extraction. The landscape is experiencing significant forces for change over short timescales from housing, infrastructure, the sand and gravel industry, agriculture and commercial 'big shed' development which detracts from the established character. Despite these intrusions, in places, particularly beside the rivers, the Washlands provide a picturesque pastoral landscape with a beguiling, timeless quality. In addition, the potentially abundant opportunities for recreation offered by the many water resources are particularly important owing to their accessibility to the many people living within and near the area.

- Distinctly narrow, linear and low-lying landscape largely comprised of the flat flood plains and gravel terraces of the rivers and defined at its edges by higher ground.
- Geology dominated by superficial alluvium and gravel river terrace deposits underpins the contrast in
  arable and pastoral agricultural use, arable crops predominating on the free-draining soils of the river
  terraces, with grassland more commonly located along the alluvial river flood plains where soils are
  subject to frequent flooding or are naturally wet.
- Flood plain pastoral areas where riverside pastures are subdivided by thick, full hedgerows with some trees contrast with arable areas with larger fields divided by low, small hedgerows with few trees
- Limited tree cover, but local concentrations give the impression of a well-timbered landscape in many places. Riparian trees, especially willows, provide an important component.
- A landscape strongly defined by its rivers and their flood plains with the extensive canal network adding significantly to the watery character and providing major recreational assets for the area.
- Diverse range of wetland habitats supporting notable species such as spined loach and bullhead fish, otter, water vole, white-clawed crayfish, shoveler, bittern, lapwing, snipe and redshank.
- Rich history of human settlement and activity reflected in the archaeology and historic buildings with a particular focus on river crossing points and the gravel terraces, as well as being significant for early Christianity in the Midlands, and later for its canal and brewing heritage.
- Settlement pattern heavily influenced by flood risk, confining villages to the gravel river terraces and
  to rising ground at the edges of the flood plains. Traditional buildings are characteristically of red
  brick and clay plain tile with earlier timber frame and grander dwellings and churches typically built
  from sandstone. Red brick and Welsh slate of 19th- and early 20th-century urban expansion
  prominent in larger settlements along with modern housing and development.
- A landscape heavily used as transport and communication corridors along the rivers and canals, for major roads and railways, and for power lines.
- A landscape marked by extensive sand and gravel extraction, power stations and prominent urbanedge industrial and commercial development.

Source: NE475: NCA Profile: 69 Trent Valley Washlands

#### 72. Mease/Sence Lowlands

The Mease/Sence Lowlands are a gently rolling agricultural landscape centred around the rivers Mease, Sence and Anker. The area extends across: Derbyshire in the north, Warwickshire in the south, Leicestershire in the east and Staffordshire in the west. With its towns lying on the fringes of the National Character Area (NCA), only a very small percentage of it is urban. These lowlands retain a rural, remote character, with small villages, red brick farmsteads and occasional historic parkland and country houses. The National Forest extends into the area north of the River Mease. The NCA contains one Special Area of Conservation (SAC) – the River Mease, which is also a Site of Special Scientific Interest (SSSI) – and has 139 ha of nationally designated SSSI, including the Ashby Canal SSSI. Important habitats include neutral grasslands, wet meadows, parkland, wet woodlands, rivers and streams, all of which support characteristic and rare species of international importance, including the white-clawed crayfish, the spined loach and the bullhead fish. The historic character of this area is important, in particular its ancient woodlands, veteran trees, landscaped parklands and areas of archaeological interest, including ridge and furrow. With 30 per

GL Hearn Page 8 of 302

cent Grade 2 agricultural land, this is a rich and productive agricultural area. Most of the land is in agricultural use, primarily for wheat. There is much potential for an increase in appropriate woodland planting as part of the National Forest initiative, which is increasing recreation opportunities, woodland cover and biomass potential for the future. Future challenges for this NCA include working to mitigate the pressures of any future developments and managing the area with the aim of making it resilient to issues such as climate change, tree diseases and non-native invasive plants.

- This is a gently rolling landscape with rounded clay ridges and shallow valleys, with a more
  undulating landform in the north-west. This is a well ordered agricultural landscape of open views,
  with a relatively tranquil character.
- Triassic Mercia Mudstones underlie this area and give rise to productive clay soils; outcrops of sandstone extend across the area southwards and westwards from the edge of the adjacent coalfield.
- Woodland cover is generally limited to scattered hedgerow trees, coverts and spinneys, and
  occasional groups of trees along rivers and streams. Larger-scale planting associated with The
  National Forest in the north of the NCA has significantly increased woodland cover and strengthened
  the wooded character of the landscape.
- The majority of the farmland has a strongly rectilinear pattern of low hedgerows and scattered hedgerow trees. On steeper ground and heavier clays, hedgerows are more substantial and hedgerow trees more frequent.
- Extensive, open areas of arable cultivation predominate. On steeper ground and heavier clays the land is less intensively farmed, and arable and pasture are mixed. Beef and dairy farming are also common.
- The main river courses of the Mease and Sence are generally very open; they are nationally important for nature conservation and support internationally rare species, including the white-clawed crayfish, spined loach and bullhead fish. Willow and alder riparian vegetation is a feature along minor streams.
- Important habitats include neutral grasslands, wet meadows, parkland, wet woodlands, rivers and streams, all of which support characteristic and rare species.
- The Ashby Canal and Coventry Canal are landscape features that are important for nature conservation and recreation. They act as reminders of our cultural heritage.
- Landscaped parklands and fine country house estates, spired churches and historic farmsteads, areas of remnant ridge and furrow and deserted settlements contribute to the time depth and sense of history of the area, along with wide verges and straight enclosure roads.
- Red brick buildings and spired churches are often prominent landscape features. Isolated large 19thcentury red brick farmsteads are also notable.
- Larger modern urban development is present on the fringes of the NCA in Nuneaton, Hinckley and Burton-upon-Trent. Straight motorways and main roads cut through the area north–south and east– west.

Source: NE421:NCA Profile:72 Mease/Sense Lowlands

#### 94. Leicestershire Vales

Leicestershire Vales National Character Area (NCA) shares many characteristics with the neighbouring Northamptonshire Vales NCA. The Leicestershire Vales extend between the town of Hinckley in the west to Leicester in the northeast and southwards towards Market Harborough and Lutterworth. This is a large, relatively open, uniform landscape composed of low-lying clay vales interrupted by a range of varied river valleys. Its sense of place comes less from its overall landform and more from its visually dominant settlements and views towards surrounding higher ground. The city of Leicester dominates the northeastern corner of the NCA. Other large- to medium-sized settlements include the towns of Market Harborough, Lutterworth and Hinckley, with many attractive small towns, villages and buildings and features of historic interest in between. The north of the area has a predominance of settlements and a general lack of tranquillity; this contrasts strongly with the distinctly more rural feel in the southern part of the area, where a mixture of arable and pastoral farmland is found. Country houses, historic designed parkland, waterside trees and meadows are common throughout. The area is rich in historic character, with country houses,

GL Hearn Page 9 of 302

parkland and surviving examples of ridge and furrow. There are numerous features and sites of historic interest such as the site of the Battle of Bosworth, near the village of Sutton Cheney, which is of national significance. It attracts many thousands of visitors each year as the location where the Wars of the Roses concluded. Major road networks that traverse the area include motorways, notably the M1 and the M69. Other main roads include the A6 and the A5, both of which have ancient origins. Other than the historic environment, most of the ecosystem services within this NCA are locally beneficial, but its river valleys – especially the River Soar and its tributaries –provide regional benefits for water flow and water quality. There are ongoing challenges in this area, principally development growth of the city of Leicester and many of the smaller towns which has an impact on the rural parts of this NCA. However, development also provides opportunities to raise design standards, strengthen sense of place and increase resilience of some habitats, by improving habitat connectivity and networks through associated green infrastructure provision.

- An open landscape of gentle clay ridges and valleys underlain by Mercia Mudstone and Lias groups bedrock but with an extensive cover of superficial deposits occasionally giving rise to moderately steep scarp slopes. There is an overall visual uniformity to the landscape and settlement pattern.
- Land use characterised by a mixture of pasture and arable agriculture that has developed on the neutral clay soils.
- Distinctive river valley of the Soar and Swift, with flat flood plains and gravel terraces together with tributaries including the Sence. Riverside meadows and waterside trees and shrubs are common, along with waterbodies resulting from gravel extraction.
- Woodland character derived largely from spinneys and copses on the ridges and the more
  undulating land and from waterside and hedgerow trees and hedgerows. The density, height and
  pattern of hedgerows varies throughout.
- Diverse levels of tranquillity associated with contrasts between busy urban areas and some deeply rural parts. Large settlements dominate the open character of the landscape. Leicester, Lutterworth, Hinckley and Market Harborough and related infrastructure, including major roads, are often visually dominant.
- Frequent small towns and large villages often characterised by red brick buildings and attractive stone buildings in older village centres and eastern towns and villages. Frequent, imposing spired churches are also characteristic, together with fine examples of individual historic buildings.
- Rich and varied historic landscape, with the nationally important Bosworth Battlefield near Sutton Cheney, prominent historic parklands and country houses, ridge-and-furrow earthworks and important medieval settlement remains, for example at Wistow Hall, Gumley, Knaptoft and Peatling Magna.

Source: NE532: NCA Profile: 94 Leicestershire Vales

#### 96. Dunsmore and Feldon

Dunsmore and Feldon is predominantly a rural, agricultural landscape, crossed by numerous small rivers and tributaries and varying between a more open character in the Feldon area and a wooded character in Dunsmore. The name Feldon refers to the old English term feld meaning 'open cleared land' and expresses the contrast, in medieval times, with the more wooded Arden area to the north-west. The area is mainly within Warwickshire, with the southern boundary delineated by the steep limestone escarpment of the Cotswolds, and the northern boundary by the Leicestershire Vales. To the west lie the well-wooded pastures of Arden, together with the Severn and Avon Vales, while the undulating pastures and low hills of the Northamptonshire Uplands form the eastern border. It is an important food producing area and the agricultural expanse of large arable fields, improved pasture and small villages forms a transitional landscape between the surrounding National Character Areas (NCAs). The land to the north comprises the wedge-shaped area of low ridges and valleys lying between Learnington Spa, Coventry and Rugby, and is known as Dunsmore. This still retains a character of historic heathland and woodlands such as the Princethorpe Woodlands which are the most important cluster of ancient woodlands in Warwickshire and an outstanding example of a large area of semi-natural habitat. The woods sometimes create a sense of confinement in the generally open landscape. The fringes of the plateaux are all similar in character but have open views framed by low hills and settlements. In the south the landform becomes more undulating with low

GL Hearn Page 10 of 302

hill tops, clay vales, sparse woodland and hedgerows, now largely denuded of the large elm trees that once grew in abundance. This area is known as the Feldon and comprises most of the south-eastern part of Warwickshire. It is a rural landscape strongly influenced by post-medieval enclosures of former strip fields, heavy clay soil and frequent small, compact villages. This NCA is drained by the rivers Avon and Leam flowing in a south-westerly direction. Flood meadows, characterised by great burnet and meadow foxtail, occur on the regularly flooded alluvial soils. There is an important water resource at Draycote Reservoir which has the capacity to provide drinking water and recreation for the local area. Coventry, which sits on the border of Dunsmore and Feldon and Arden, exerts a huge influence, especially in the north of the area. The other main settlements in Dunsmore and Feldon are Rugby and Learnington Spa. Seven per cent of this area is classed as urban. To the south, the area becomes more rural and undulating as it merges into the Cotswolds in the neighbouring NCA. One per cent of this area falls within the Cotswolds Area of Outstanding Natural Beauty. The historic character of this area is very important, in particular its ancient woodlands, enclosed fields, veteran trees, landscaped parklands and areas of archaeological interest, including deserted villages and numerous sites of remnant ridge and furrow. The Fosse Way Roman military road passes through the area and has influenced patterns of settlement in this NCA. Earthwork remains of medieval settlements and associated field systems at Radwell, Tysoe and Napton on the Hill are three of the most coherent medieval township landscapes in existence in England. The area is facing key challenges around how to protect and enhance its assets and recreational resource while accommodating the pressure for sustainable modern growth and development and the needs of the communities who live there.

- The sense of a predominantly quiet, rural landscape is heightened by its close proximity to several urban areas, with a gently undulating landscape of low hills, heathland plateaux and clay vales separated by the occasional upstanding escarpment.
- The underlying lower Lias clays and Mercia mudstones are similar throughout Dunsmore and Feldon but the Quaternary 'superficial' deposits are what mark the change in character between Dunsmore and Feldon.
- Light sandy soils associated with the west (Dunsmore) supporting mixed farming and some intensive arable with fertile alkaline soils to the east (Feldon) supporting grazed pasture.
- Generally low woodland cover across the area, although there are areas of well-wooded character and ancient woodlands, especially in the north, providing habitats for bluebells, molluscs and fritillary butterflies; these woodlands are linked with landscaped parklands and hedgerow trees.
- Remnants of the formerly extensive Dunsmore Heath, preserving characteristic heathland archaeology, can still be found in woodland clearings. Natural regeneration on sand and gravel soils also occurs along roadside verges, although bracken is often abundant.
- Narrow, meandering river valleys with pollarded willows, streamside alders and patches of scrub supporting dipper, kingfisher, otter and Atlantic stream crayfish.
- Canals, including the Grand Union Canal, and Draycote Reservoir provide important riparian habitats and a well-used recreational resource.
- Mainly large fields, with regular or rectilinear shapes, although some smaller fields also feature.
   Numerous areas of remnant ridge-and-furrow and earthwork remains of medieval settlements as found at Lower Tysoe, Radwell and Napton on the Hill.
- Predominantly nucleated settlement pattern with a low density of isolated farmsteads and some field barns sitting within a landscape of piecemeal and planned enclosure of the open fields which extended from the villages over large parts of this area. Many villages have recently expanded but the traditional buildings, constructed of red brick or Lias limestone, still retain their blue brick or ironstone details.
- The busy roads and large industrial units on the outskirts of the main settlements of Leamington Spa, Coventry and Rugby exert an urban influence on the surrounding area.
- Limestone quarrying for the cement industry was formerly a feature in the centre and south of the
  area, and disused quarries are now prominent elements in the landscape. The rock exposures and
  spoil heaps are of geological importance, as well as having interesting limestone grassland
  communities.

Source: NE469:NCA Profile: 96 Dunsmore and Feldon

GL Hearn Page 11 of 302

#### 97. Arden

Arden comprises farmland and former wood-pasture lying to the south and east of Birmingham, including part of the West Midlands conurbation. Traditionally regarded as the land lying between the River Tame and the River Avon in Warwickshire, the Arden landscape also extends into north Worcestershire to abut the Severn and Avon Vales. To the north and northeast it drops down to the open landscape of the Mease/Sence Lowlands. The eastern part of the NCA abuts and surrounds Coventry, with the fringes of Warwick and Stratford-upon-Avon to the south. This NCA has higher ground to the west, the Clent and Lickey Hills and to the east, the Nuneaton ridge. The landscape of the lower lying central area is gently rolling with small fragmented semi-natural and ancient woodlands. Mature oaks set in hedgerows, distinctive field boundaries, historic parklands and narrow river corridors are key features, all on the doorstep of a heavily urbanised area. Land use throughout the area is mainly, residential, agricultural and industrial including coal mining, which is still active in the north-east of the NCA. Numerous transport corridors; road, rail, air and canal run through the area. There is likely to be increased development and greater pressure upon the existing infrastructure, particularly around Birmingham, Coventry and the main towns. This pressure could lead to the creation of new green infrastructure linking the urban areas out into the more rural areas. This NCA is among the most geologically diverse. This has had a strong impact on the landscape's character and development and is further reflected in the range of locally and nationally important geological assets across the NCA. There are also many local biodiversity assets and strong cultural links with William Shakespeare and his 'Forest of Arden'.

- Well-wooded farmland landscape with rolling landform.
- Geologically diverse with rocks ranging from the Precambrian to the Jurassic and overlain by superficial Quaternary deposits.
- Mature oaks, mostly found within hedgerows, together with ancient woodlands, and plantation woodlands that often date from the time of enclosure. Woodlands include historic coppice bounded by woodbanks.
- Narrow, meandering clay river valleys with long river meadows; the River Blythe SSSI lying between the cities of Coventry and Birmingham is a good example of this.
- Numerous areas of former wood-pasture with large, old, oak trees often associated with isolated remnants of more extensive heathlands. Village greens/commons have a strong association with remnant lowland heath.
- Fragmented heathland persists on poorer soils in central and northern areas.
- Diverse field patterns, ranging from well hedged, irregular fields and small woodlands that contrast with larger semi regular fields on former deer park estates, such as, Packington Hall and Stoneleigh Park.
- Complex and contrasting settlement pattern with some densely populated where traditional settlements have amalgamated to form the major West Midlands conurbation while some settlements remain distinct and relatively well dispersed.
- North-eastern industrial area based around former Warwickshire coalfield, with distinctive colliery settlements. North-western area dominated by urban development and associated urban edge landscapes such as managed greenspace, for example allotments, gardens, parks, golf courses (rough areas) and public open spaces; playing fields, churchyards, cemeteries and institutional grounds (schools, hospitals).
- Transport infrastructure, the M42, M40, M6 and M5 are major transport corridors that sit within the landscape of this NCA.
- Shakespeare's 'Forest of Arden', featured in 'As You Like It', is still reflected through the woodland cover, mature oaks, small ancient woodlands and former wood pasture.

Source: NE337: NCA Profile: 97 Arden

#### 106. Severn and Avon Vales

The lower valleys of the rivers Severn and Avon dominate this low-lying open agricultural vale landscape made up of distinct and contrasting vales, including Evesham, Berkeley, Gloucester, Leadon, and Avon, with Cotswold outliers like Bredon Hill punctuating the otherwise flat vale landscape. The M5 motorway runs through the centre and the eastern edge of the area. A small proportion of the National Character Area (NCA) is urban and includes towns such as Worcester, Cheltenham, Gloucester and Stratford-upon-Avon, with its world famous Shakespearian connections. Industrial development is still important at Avonmouth and

GL Hearn Page 12 of 302

the archaeology/heritage of former industry is prominent around Sharpness Docks, Pill, Gloucester-Sharpness Canal and Stroudwater Canal. The majority of the area is used as agricultural land. Woodland is sparse and it is a generally open landscape. Traditional orchards are widespread across the area and with surrounding NCAs support the main UK population of the noble chafer beetle and provide an important genetic resource of local fruit varieties. Important concentrations of lowland meadow and floodplain grazing marsh support a range of priority species from green winged orchid and brown hairstreak butterfly to true fox sedge and a wide range of waterfowl. The Walmore Common Special Protection Area (SPA) and adjacent Severn Estuary SPA are of international importance for wintering wildfowl, such as Bewick's swan and shelduck. The oolitic limestone outliers of the Cotswolds AONB overlie this area and the Bredon Hill SAC is particularly important as a site for the rare violet click beetle. There are important staircases of fossil-bearing river terrace gravels containing evidence of Palaeolithic and Mesolithic human settlement, and rare inland salt deposits at Droitwich. Key ecosystem services within this NCA include flood regulation, food production due to extensive agriculture and sense of history which is internationally important due to its links with Shakespeare. Future challenges and opportunities include pressure from development around urban and industrial areas, pressure to increase food production and large scale wetland habitat restoration to aid flood management.

- A diverse range of flat and gently undulating landscapes strongly influenced and united by the Severn and Avon rivers which meet at Tewkesbury.
- Prominent oolitic limestone outliers of the Cotswold Hills break up the low-lying landscape in the south-east of the area at Bredon Hill, Robinswood Hill, Churchdown Hill and Dumbleton Hill.
- West of the Severn the Mercia Mudstones predominate, producing poorer silty clay soils. Lias clays
  in the Avon Valley and east of the Severn create heavy but productive soils. River terrace gravels
  flank the edges of watercourses.
- Woodland is sparsely distributed across this landscape but a well wooded impression is provided by frequent hedgerow trees, parkland and surviving traditional orchards. Remnants of formerly extensive Chases and Royal Forests, centred around Malvern, Feckenham and Ombersley still survive.
- Small pasture fields and commons are prevalent in the west with a regular pattern of parliamentary
  enclosure in the east. Fields on the floodplains are divided by ditches (called rhines south of
  Gloucester) fringed by willow pollards and alders.
- Pasture and stock rearing predominate on the floodplain and on steeper slopes, with a mixture of livestock rearing, arable, market gardening and hop growing elsewhere.
- Unimproved neutral grassland (lowland meadow priority habitat) survives around Feckenham Forest and Malvern Chase. Along the main rivers, floodplain grazing marsh is prevalent. Fragments of unimproved calcareous grassland and acidic grasslands are also found.
- The River Severn flows broadly and deeply between fairly high banks, north to south, while the Warwickshire River Avon meanders over a wide flood plain between Stratford, Evesham and Tewkesbury. The main rivers regularly flood at times of peak rainfall.
- A strong historic time line is visible in the landscape, from the Roman influences centred at Gloucester, earthwork remains of medieval settlements and associated field systems through to the strong Shakespearian heritage at Stratford-upon-Avon.
- Highly varied use of traditional buildings materials, with black and white timber frame are intermixed with deep-red brick buildings, grey Lias and also Cotswolds stone.
- Many ancient market towns and large villages are located along the rivers, their cathedrals and churches standing as prominent features in the relatively flat landscape.

Source: NE336: NCA Profile: 106 Severn and Avon Vales

#### 107. Cotswolds

The Cotswolds form the best-known section of the predominantly onlitic Jurassic Limestone belt that stretches from the Dorset coast to Lincolnshire. The dominant pattern of the Cotswold landscape is of a steep scarp crowned by a high, open wold; the beginning of a long and rolling dip slope cut by a series of increasingly wooded valleys. The scarp provides a backdrop to the major settlements of Cheltenham, Gloucester, Stroud and Bath and provides expansive views across the Severn and Avon Vales to the west. Smaller towns and villages nestle at the scarp foot, in the valley bottoms and on the gentler valley sides at

GL Hearn Page 13 of 302

springlines. Scattered hamlets and isolated farmsteads are found on the higher ground. The limestone creates a strong sense of place and unity which carries through to the buildings and walls which have been built using local limestone for centuries. The distinctive character of the area is reflected in its designation as the Cotswolds Area of Outstanding Natural Beauty, with sixty five percent of the NCA being covered by this designation. Nationally important beech woods feature in the landscape and are a notable feature on the scarp edge and in a number of the incised valleys. Mixed oak woodlands are concentrated on the upper slopes of valleys and on the flat high wold tops. Woodlands can contain a wide and notable range of calcicole shrubs and ground flora. Parkland and estates are characteristic of the area. Farming is mixed, with much of the high wold dominated by arable on thin, brashy soils prone to erosion. Pasture is predominant in the valleys, and in particular on steeper slopes and on more clayey soils. Meadows and treelined watercourses are found along the valley bottoms. Important habitats include unimproved limestone grassland along the scarp, for example Rodborough Common Special Area of Conservation (SAC) and wet meadows with alder and willow and springline flushes. Two further SAC are also designated: Cotswold Beechwoods SAC and Bath and Bradford-on-Avon Bats SAC. Steeply-incised stream and river valleys cut through the north-westfacing scarp, flowing westwards towards the Severn. The watercourses of the dip slope provide the headwaters of the Thames and flow eastwards within broad shallow valleys, and these rivers and underlying aguifer are an important supply of high-quality water for populations within and around the area. The area has a rich history, with nationally and internationally important evidence of prehistoric, Roman, medieval and later settlement in the form of archaeological sites, historic buildings and the wider historic landscape. Roman roads are prominent, including the Fosse Way which extends from north to south through the whole area.

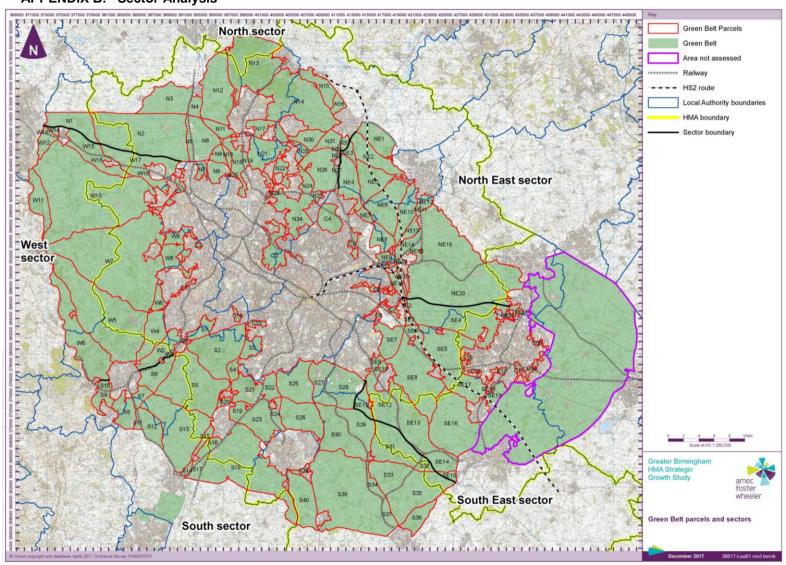
It is a notable visitor destination and has a longstanding reputation as the 'quintessential English landscape'.

- Defined by its underlying geology: a dramatic limestone scarp rising above adjacent lowlands with steep combes, and outliers illustrating the slow erosion of escarpments. The limestone geology has formed the scarp and dip slope of the landscape, which in turn has influenced drainage, soils, vegetation, land use and settlement.
- Open and expansive scarp and high wold dipping gently to the southeast, dissected by river valleys.
- Arable farming dominates the high wold and dip slope while permanent pasture prevails on the steep slopes of the scarp and river valleys with pockets of internationally important limestone grassland.
- Drystone walls define the pattern of fields of the high wold and dip slope. On the deeper soils and river valleys, hedgerows form the main field boundaries.
- Ancient beech hangers line stretches of the upper slopes of the scarp, while oak/ash woodlands are characteristic of the river valleys. Regular blocks of coniferous and mixed plantations are scattered across the open high wold and dip slope.
- Large areas of common land, important for unimproved calcareous grassland, are characteristic of the scarp and high wold around the Stroud valleys and along the crest of the scarp to Cleeve Hill.
- The majority of the principal rivers flow south-eastwards forming the headwaters of the Thames with the exception of rivers in the west which flow into the River Avon and then the Severn Estuary.
- Rich history from Neolithic barrows, iron-age hill forts and Roman roads and villas to deserted
  medieval villages, grand country houses, cloth mills and Second World War airfields. The field
  patterns largely reflect both the medieval open field system, with fossilised areas of ridge and furrow,
  and later planned enclosures.
- Locally quarried limestone brings a harmony to the built environment of scattered villages and
  drystone walls, giving the area a strong sense of unity for which the Cotswolds are renowned. Bath
  stone is also famous and has been used for building since Roman times, both locally in the principal
  buildings and streets of Bath and more widely, for example for Buckingham Palace in London.
  Parkland, gardens and historic designed landscapes are features particularly of the dip slope and
  broad lowland, such as Lawrence Johnston's garden at Hidcote, and Heather Muir's garden at
  Kiftsgate, parkland at Stanway, Chastleton and Blenheim Palace.
- Prominent natural and built features in the landscape include the City of Bath WHS, Brailes Hill, Broadway Tower, Cleeve Hill, the Tyndale monument, Freezing Hill, Kelston Round Hill and Blenheim Palace WHS.

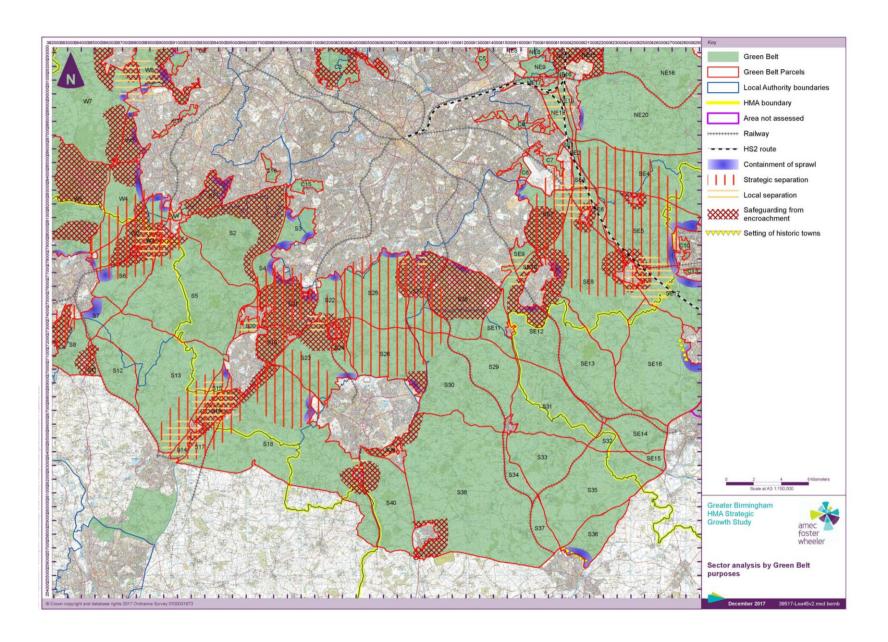
Source: NE420: NCA Profile:107. Cotswolds

GL Hearn Page 14 of 302

**APPENDIX B: Sector Analysis** 



GL Hearn Page 15 of 302



GL Hearn Page 16 of 302

#### SOUTH SECTOR - PURPOSE 1: CONTAINING SPRAWL

Containment of sprawl across this sector is concentrated on those areas of built edge where there is no clear, substantial boundary to act as a division between a built edge and open countryside. These are:

- 1. East and south east of Kidderminster
- 2. South of Dudley Borough at Hasbury/Hayley Green
- 3. North west of Frankley
- 4. West and south of Rubery
- 5. South of Longbridge at Cofton Common6. South of Cofton Hackett
- 7. South of Druid's Heath/Walker's Heath
- 8. South of Highter's Heath and Shirley Heath, Shirley
- 9. South west of Bromsgrove
- 10. West and north west of Redditch
- 11. North east of Redditch
- 12. North and north east of Stratford-upon-Avon
- 1. East and south east of Kidderminster here the town has historically expanded into open countryside through large-scale estate development (parcels S6 and S7). The Green Belt has a clear containment role which maintains the clear division between town and country to the east and south east of the town. The principal role of containment in this area is accompanied by a supporting role of protection of the open countryside from encroachment. Along, and in the vicinity of, the A449 Worcester Road, there is some evidence of sprawl as the town has expanded southwards, although this development appears to pre-date Green Belt designation.
- 2. South of Dudley Borough at Hasbury/Hayley Green development appears to have extended westwards in an incremental fashion in this locality into what remains reasonably open countryside (parcel S1), despite being enclosed to the east north west and bounded by the A456 Hagley Causeway to the south. Green Belt prevents further sprawl in this location, particularly on the eastern edge adjacent to Halesowen where there is evidence of incremental change which is not contained by a significant boundary. Development to the north west (at Pedmore and Cradley) has also intruded into this area, but appears to have largely used topography and natural features to guide development boundaries.
- 3. North west of Frankley part of the westerly expansion of Frankley, which in turn forms part of the south western edge of the Birmingham conurbation, there are various unbounded incursions (for example off Boleyn Road and Holly Hill Road) into the remaining open countryside which extends to the M5 (parcel S3). The previously developed character of the land (ex-hospital sites) in this location is noted. There is some boundary planting adjacent to the built edge, but this is generally insubstantial. The Green Belt checks further incremental change (which has typically occurred up to the administrative boundary between Birmingham and Bromsgrove) of this nature.
- 4. West and south of Rubery development has extended into open countryside with no clear. substantial containing boundary to the west and south of Rubery (parcels S4 and S21) along what is a complex built edge. The Green Belt acts to contain the resultant sprawl of the urban edge (in turn part of the south west edge of Birmingham) towards the M5. Note: to the west, a significant part of the open land is also designated as Waseley Hills Country Park, and to the south as Lickey Hills Country Park.
- 5. South of Cofton Hackett whilst Coften Hackett is a settlement in its own right, it is physically joined to the Birmingham conurbation by industrial development at Longbridge extending along the railway line and Cofton Park (parcels S21). The southern edge of the settlement is largely uncontained by a significant boundary and development has spread along the B4120 Barnt Green Road. The land in this location is part of the Green Belt which contains the southern and south western edge of the Birmingham conurbation.

GI Hearn Page 17 of 302

- 6. South of Longbridge at Cofton Common Longbridge whilst the built extent of Birmingham at Longbridge is largely contained by the B4096 Groveley Lane, development has nevertheless extended southward to the City boundary, creating an unbounded edge between contiguous built development and open countryside extending past Upper Bittell Reservoir to the M42. The majority of the parcel is open countryside related to the broader arc between the edge of Birmingham and the M42 (parcels S21, S22, S25, S27 and S28).
- 7. South of Druid's Heath/Walker's Heath although the built edge of Birmingham is largely contained by Druids Lane, this is not a substantial boundary and to the west at Walker's Heath and east around Druids Farm and Crabmill Lane, there is evidence of uncontained development abutting the Green Belt (parcel S25). In both cases the Green Belt acts to contain potential sprawl. The land is part of the wider Green Belt which contains the southern edge of the Birmingham conurbation.
- 8. South of Highter's Heath and Shirley Heath, Shirley part of an extensive urban edge is closely related to the City boundary with a sometimes blurred division between built development and open countryside in this locality towards Hollywood and Dickens Heath (parcel S28). Development south of Highter's Heath and Shirley Heath are examples of the Green Belt containing the conurbation to the north in the absence of clear boundaries, part of a wider arc north of the M42 which contains the built edge of Birmingham (parcels S27 and S28).
- 9. <u>South west of Bromsgrove</u> here there is evidence of modest sprawl into the open countryside between Bromsgrove and the M5 (off Rock Hill and Fox Lane) with no immediate boundary to development (parcel S15). Whilst the M5 forms a significant western boundary, this is detached from the current built edge of the town. Largely open countryside extends south westwards to Upton Warren.
- 10. West and north of Redditch the built edge of Redditch on its western and north western flanks is complex (parcels S18 and S23), reflecting the phased growth of the town and its local geography, being largely contained within the valley slopes of the River Arrow. Consequently, the physical containment of growth is not always clear, with a range of urban edges which directly abut open countryside (part of two large parcels of land between Redditch and Bromsgrove S18 and S23).
- 11. <u>Northeast of Redditch</u> here, north of Ravensbank Drive (parcel S26), recent industrial development abuts open countryside with no immediate containing boundary. Green Belt contains the potential for further expansion of this kind.
- 12. North and northeast of Stratford-upon-Avon the bulk of the expansion of Stratford-upon-Avon has been northward, with an undefined edge to some of this development (parcel S36). The Green Belt contains potential sprawl and the current division between contiguous built development and open countryside.

GL Hearn Page 18 of 302

#### **SOUTH SECTOR - PURPOSE 2: MAINTAINING SEPARATION**

There are six areas of strategic separation across the sector:

- 1. Between Stourbridge and Kidderminster (shared with the western sector)
- 2. Between Kidderminster and Bewdley and Stourport
- 3. Between Birmingham (Rubery/Rednal) and Bromsgrove (Catshill)
- 4. Between Birmingham and Redditch
- 5. Between Bromsgrove and Redditch
- 6. Between Bromsgrove and Droitwich

#### There are nine areas of local separation:

- 1. Between Stourbridge and Hagley (shared with the western sector)
- 2. Between Hagley and Blakedown (shared with the western sector)
- 3. Between Bromsgrove and Catshill
- 4. Between Barnt Green and Alvechurch
- 5. Between Bromsgrove and Wychbold6. Between Wychbold and Droitwich
- 7. Between Redditch and Astwood Bank
- 8. Between Redditch and Studley
- 9. Between Highter's Heath and Hollywood

GL Hearn Page 19 of 302

#### STRATEGIC SEPARATION

- Between Stourbridge and Kidderminster (shared with the western sector) the gap between the
  towns is currently around 5 miles which, strategically, is potentially vulnerable to erosion (parcels W12,
  W2, W3, S5 and S6. The villages of Hagley and Blakedown are within this broad area (see local
  separation below) which further narrows the sense of separation along the principal corridor of the A456
  and the Birmingham Kidderminster railway line.
- 2. <u>Between Kidderminster and Bewdley and Stourport</u> the three towns have grown such that the Green Belt forms an often slight division between them (parcels S9 and S10), along with incremental development within these gaps which further reduces the sense of openness. Green Belt thus plays a significant role in maintaining their remaining physical separation and hence identity.
- 3. Between Birmingham (Rubery/Longbridge) and Bromsgrove this is a spatially complex area (parcels S19 and S21) which is defined by urban expansion and significant transport corridors which create subdivisions which, if developed, would readily create a continuous arc of development from south west Birmingham through to Bromsgrove. The topography of the Lickey Hills presents a significant geographical feature which significantly contributes to a sense of visual separation. Green Belt helps to maintain a sense of physical separation between Birmingham and Bromsgrove, albeit compromised by the pattern of road development and various fragmented developments across including Marlbrook and Lickey and through to Barnt Green.
- 4. <u>Between Birmingham and Redditch</u> the gap of around 4 miles between Birmingham and Redditch (parcels S22, S24, S25, S26, S27 and S30) is principally defined by the A435 to the east and the A441 to the west, is bisected by the M42, but retains a largely rural character. To the northeast of the A435, the settlement of Hollywood and Wythall and fragmented development in their vicinity reduce the separation distance, as do Alvechurch and Barnt Green to the west of the A441.
- 5. <u>Between Bromsgrove and Redditch</u> whilst the gap between the two towns is around 3 miles (parcels S18 and S23), topography and vegetation help to maintain a reasonably strong sense of both physical and visual separation between them characterised by open countryside, where built development is largely limited to HMP Hewell and Tardebigge along the A448.
- 6. <u>Between Bromsgrove and Droitwich</u> although the gap is around 3 miles, development associated with the busy transport corridor of the A38 and Junction 5 of the M5 (notably around Wychbold) has weakened the sense of separation and openness of the countryside ++between the towns (parcels S13 to S17). The Green Belt acts to maintain the potentially vulnerable gap between the towns.

#### **LOCAL SEPARATION**

- 1. Between Stourbridge and Hagley (shared with the western sector) this area has been the focus of development activity resulting in the virtual coalescence of Stourbridge and Hagley, notably through sprawl along the A491 (parcels S1 and W1). The land between the settlements (centred on the B4187) is at risk from further change (where the remaining separation is only a few hundred yards), reflecting a busy transport corridor of road and rail links and the sphere of influence of the Birmingham conurbation of which Stourbridge is its southwestern extent. The Green Belt in this location helps to maintain the separate identity of Hagley.
- 2. Between Hagley and Blakedown (shared with the western sector) whilst this land is part of the strategic separation of Birmingham and Kiddderminster, locally the Green Belt (parcels S6 and W3) helps to ensure the maintenance of the separate identity of both Hagley and Blakedown which are at risk of merger along a significant transport corridor.

GL Hearn Page 20 of 302

- 3. <u>Between Bromsgrove and Catshill</u> whilst the M42 forms the significant division between the two settlements (parcel S20), the Green Belt helps to maintain a nominal degree of separation which might otherwise be lost through incremental change (from both north and south) which uses the various road corridors (notably the M42 and A38, but also the B4091) as development boundaries.
- 4. **Between Barnt Green and Alvechurch** although the M42 and the Worcester and Birmingham Canal together form a clear boundary between the two settlements, there is evidence of, and potential for, encroachment (such as along Aqueduct Lane and Sandhills Green immediately to the north of the M42), and consequent narrowing of the gap (parcels S22 and S23).
- 5. Between Bromsgrove and Wychbold although part of a strategic gap between Bromsgrove and Droitwich, there is evidence on a local scale of encroachment into open land between Bromsgrove and Wychbold (parcels S15 and S16), reflecting the character of the land as a key transport corridor with a long history of development. As such the area is at particular risk of further infill and the progressive narrowing of the gap between Bromsgrove and Wychbold in particular (notably through the influence of the M5, Junction 5 and the substantial garden centre) but also between Bromsgrove and Stoke Prior.
- 6. <u>Between Wychbold and Droitwich</u> there is evidence of ribbon development along the A38 Worcester Road (parcels S13 and S14) but this is not contiguous and there remains a reasonably strong sense of local separation which in turn contributes to the strategic gap between Bromsgrove and Droitwich.
- 7. <u>Between Redditch and Astwood Bank</u> ribbon development along the A441 effectively joins the two settlements (parcels S18 and S40), although the land either side of this narrow strip remains open, maintaining their separate identity, particularly to the west of the A441 where the gap is narrowest and which quickly opens out into countryside south of Redditch.
- 8. **Between Redditch and Studley** whilst the remaining gap between the two built areas (parcel S39) shows evidence of incremental change and hence narrowing, there remains sufficient open land to help retain the separate identity of Studley from the encroachment of Redditch immediately to the north where development extends to the Borough boundary.
- 9. <u>Between Highter's Heath and Hollywood (east of the A435)</u> development has been extended along the Alcester Road to the administrative boundary of Birmingham and north from Hollywood (parcel S27), resulting in *de facto* merger of the two built-up areas, although to the east and west extending from this point of connection there is open countryside (pasture to the west, Gay Hill golf course to the east). Green Belt in this location maintains a sense of visual separation.

#### SOUTH SECTOR - PURPOSE 3: SAFEGUARDING THE COUNTRYSIDE FROM ENCROACHMENT

The following areas have been identified as having a particular role in assisting in safeguarding the countryside from encroachment:

- 1. Between Kidderminster, Bewdley and Stourport
- 2. To the east of Stourport around Hartlebury
- 3. Between Hagley and Blakedown
- 4. To the north of the A456 between Halesowen and Stourbridge
- 5. Between Halesowen and the M5
- 6. Between Rubery, Marlbrook and Barnt Green
- 7. To the south east and south of Bromsgrove
- 8. To the south of Shirley around Hollywood, Wythall, Dickens Heath, Cheswick Green and Earlswood
- 9. To the north east of Redditch at Ravensbank
- 10. To the south east of Redditch around Mappleborough Green
- 11. To the south of Redditch around Astwood Bank
- 12. To the north, east and south of Alcester

GL Hearn Page 21 of 302

- 1. <u>Between Kidderminster, Bewdley and Stourport</u> the Green Belt (parcels S9 and S10) between these three settlements helps to prevent incremental change in what is a somewhat fragmented landscape which includes a diverse array of uses including quarrying, caravan parks, golf courses and sports pitches (and associated buildings) and industrial estates. Whilst being typically urban fringe Green Belt, it is nevertheless vulnerable to incremental change.
- 2. To the east of Stourport around Hartlebury there have been various degrees of incremental change associated with this settlement situated on the Kidderminster Worcester Road (A449) and railway line, including a substantial industrial estate and piecemeal extensions of the original village. The Green Belt prevents further intrusion into what is relatively open countryside.
- 3. <u>Between Hagley and Blakedown</u> the A456 Kidderminster Road (becoming the Birmingham Road at Hagley) (parcels S5, S6 and W3) is the focus for development along its length, exemplified by the south westward spread of Hagley. The land in the vicinity of this transport corridor, which includes the Kidderminster Birmingham railway line, is vulnerable to encroachment from further incremental change.
- 4. To the north of the A456 Hagley Causeway between Halesowen and Stourbridge whilst being enclosed by urban development to the north and the A456 dual carriageway to the south (parcel S1), the land retains the character of open countryside with limited evidence of significant change. The land is potentially vulnerable to further incremental erosion from the surrounding conurbation, particularly to the east where the urban edge is poorly defined.
- 5. Between Halesowen and the M5 despite the proximity of the land to the Birmingham conurbation immediately to the north of the A456 Manor Way and east of the M5, the land around Illey, Hunnington and Romsley (parcel S2) broadly retains the quality of open countryside. However, the high degree of accessibility makes the land vulnerable to further encroachment, with evidence, for example, of near continuous linear development along the B4551 from Romsley to the A456 Manor Way.
- 6. **Between Rubery, Marlbrook and Barnt Green** this area situated immediately to the south of the Birmingham conurbation (parcel S21) contains various expanded settlements with a sometimes sprawling footprint which blurs the distinction between different settlements and between 'town and country'. The area contains the Lickey Hills Country Park and is bounded by the significant transport corridors of the M5 and M42 and associated feeder roads, and the Birmingham Cardiff/South West railway line. As such, the area is vulnerable to incremental change through further encroachment into the pockets of open land which exist between the various settlements in what is a highly accessible area.
- 7. To the south east and south of Bromsgrove the land between Bromsgrove and Droitwich (parcels S16 and S18) is characterised by fragmented patterns of development which have developed along the roads, railways and canals of this busy corridor. Green Belt policy restrains a tendency towards further incremental change characteristic of this locality which contains some significant pockets of urbanisation, notably development associated with Stoke Prior and its extensive industrial area
- 8. To the south of Shirley around Hollywood, Wythall, Dickens Heath, Cheswick Green and Earlswood whilst the urban edge of Birmingham is generally well contained by road boundaries, the land to the south bounded by the A435 and the M42 (parcels S27 and S28) has been the focus of significant incremental change through the expansion of various settlements and more generally in the form of large isolated properties across its extent. Green Belt policy keeps these pressures in check across what is highly accessible countryside.
- 9. To the north east of Redditch at Ravensbank development has recently extended north of Ravensbank Drive/A4023 Coventry Highway (parcel S26), making land between what is now the built edge of Redditch and the minor road of Moss Lane/Wapping Lane vulnerable to encroachment. The Green Belt in this location has also been identified as containing the unbounded built edge thus preventing sprawl.

GL Hearn Page 22 of 302

- 10. To the south east of Redditch around Mappleborough Green whilst development associated with Redditch is largely contained to the east beyond the A435, the land which is part of wider open countryside to the east (parcel S38) exhibits some evidence of incremental change (particularly at the junction of the A435 and the A4189 Henley Road), and risk of additional change, kept in check by Green Belt policy which maintains a reasonably clear distinction between town and country in this location.
- 11. To the south of Redditch around Astwood Bank development in this locality has created an expanded street village extending southwards along the A441 from the southern edge of Redditch's urban area (parcels S18 and S40). Green Belt, in principle, checks the tendency towards incremental change, both along the A441 and to the west of Astwood Bank (for example along Dark Lane and Astwood Lane) where there appear to be few boundaries to contain growth.
- 12. To the north, east and south of Alcester the eastern side of the town has been the preferred direction of growth and Green Belt (parcel S38) contains further growth, particularly to the north east where the Arden Forest Industrial Estate has extended into open countryside with little evidence of containing boundaries. Residential development to the south east appears to be reasonably compact but again having no substantive external boundaries.

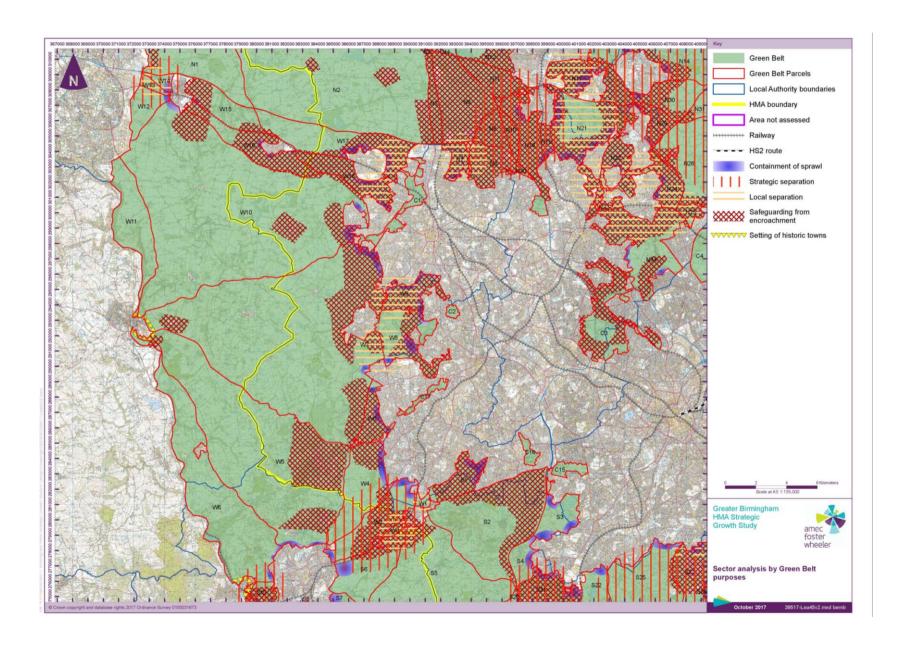
GL Hearn Page 23 of 302

#### **SOUTH SECTOR - PURPOSE 4: PROVIDING SETTING**

There are two historic towns in the sector – Bewdley and Stratford-upon-Avon – with the Green Belt providing the north/northeasterly setting for both.

- Setting for Bewdley the historic core of Bewdley straddles the River Severn and has been largely
  visually enclosed by recent development. Nevertheless, the Green Belt, particularly to the north east of
  the River Severn and Severn Valley Railway, helps to maintain a rural context to the town, and east of
  the River Severn generally provides a wider open character to gateways into the town from
  Kidderminster and Stourport (parcels S9 and S10).
- 2. <u>Setting for Stratford-upon-Avon</u> whilst the north westerly and north easterly outskirts of the town (parcel S36) have little or no physical or visual relationship with the historic core of the town, the Green Belt nevertheless helps to provide a broad countryside setting for the town across this northern arc, particularly from the A349 and to a lesser extent from the A3400.

GL Hearn Page 24 of 302



GL Hearn Page 25 of 302

#### WEST SECTOR - PURPOSE 1: CONTAINING SPRAWL

Containment of sprawl across this sector is concentrated on those areas of built edge where there is no clear, substantial physical boundary to act as a division between the built edge and open countryside. These are:

- 1. North-east and south of Codsall
- 2. South of Wolverhampton and west of Dudley
- 3. West of Kingswinford and Stourbridge
- 4. South of Stourbridge
- 5. West of Shifnall
- 6. West and north of Kidderminster
- 7. West and south of Albrighton and Donnington
- 1. North-east, east and south of Codsall the village has historically expanded into open countryside to include the village of Bilbrook to the north-east and towards Wolverhampton to the south and east (parcels W17 and W18). Whilst many sections are physically well defined by roads, watercourses and the railway line, there are sections where there is no physically well-defined settlement edge to check sprawl to the north (towards the M54) and to the east and west (towards Wolverhampton). The Green Belt has a clear containment role which maintains a clear division between town and country to the north-east, east and south of the village. This role supports the accompanying role of safeguarding the countryside from encroachment and the principal role of separation between settlements.
- 2. South of Wolverhampton and west of Dudley the towns of Wolverhampton and Dudley have historically expanded into open countryside to the south and west with evidence of unbounded edges between contiguous areas of housing and open countryside (parcels W18, W7, W8, W9 and W10). Sections of the settlement edge are physically well defined by roads, watercourses and belts or blocks of woodland, although there are large sections where there is no clear defining boundary to the settlement near Upper Penn, Parkfields, Sedgley, The Straits and Pensnett. The Green Belt has a clear containment role which maintains a clear division between town and country to the north-east, east and south of the village. This role supports the accompanying role of safeguarding the countryside from encroachment and the principal role of separation between settlements Wombourne and the West Midlands conurbation (Wolverhampton and Dudley).
- 3. West of Kingswinford and Stourbridge the towns of have historically expanded into open countryside to the west through large scale estate development (parcels W4 and W6). Whilst many sections are physically well defined by a sections of wooded ridge, there is evidence of unbounded edges between contiguous built development and open countryside extending west. Here the Green Belt has a clear containment role which maintains a clear division between town and country to the west. This role supports the accompanying role of preventing encroachment into the countryside.
- 4. <u>South of Stourbridge</u> Stourbridge has historically expanded to the south through large scale estate development. Whilst occasional blocks of woodland and roads provide a physically well-defined edge to the settlement in places, many sections are physically less well-defined with development abutting open fields and the golf course (parcel W2). Here the Green Belt has a clear containment role which maintains a clear division between town and country to the west.
- 5. West of Shifnal Shifnal has historically expanded with many residential estates extending along road corridors and into the surrounding countryside. Whilst sections of the settlement edge are physically well-defined by road corridors, there is evidence of an unbounded edge between contiguous built development and open countryside to the south (W10, W12, W13 and W14). Here the Green Belt has a clear containment role which maintains a clear division between the village and countryside to the south and east.

GL Hearn Page 26 of 302

- 6. West and north of Kidderminster The town has historically expanded through large scale estate development. Occasional sections of road and blocks of woodland provide some physical definition to the settlement edge. However the majority of the edge is physically not well defined with large areas of urban development, typically large estates, abutting open countryside with no clear defining boundary (parcels W5 and W6). Here the Green Belt has a clear containment role which maintains a clear division between the town and countryside to the south and east.
- 7. West and south of Albrighton and Donington The adjoining villages of Albrighton and Donington grew considerably after World War II extending along the major road corridors into the surrounding countryside. Many sections of the settlement edge are physically well-defined by watercourses, the railway line and roads (parcel W16). Although sections of the settlement edge to the west and south are less well-defined and there is evidence of unbounded edges between contiguous built development and open countryside. Here the Green Belt has a clear containment role which maintains a clear division between town and country.

#### **WEST SECTOR – PURPOSE 2: MAINTAINING SEPARATION**

There is one area of strategic separation across the sector, between:

1. Between Telford and Shifnall

There are two local areas of separation, between:

- 1. Between Codsall and Wolverhampton
- 2. Between Wombourne and Wolverhampton, Dudley and Kingswinford

#### **Strategic Separation**

Between Telford and Shifnal – the gap between Telford and Shifnal is 1.25 miles and is vulnerable to
erosion (parcels W12, W13 and W14). The Green Belt has a clear role in separating the town of
Wolverhampton (the western edge of the West Midlands conurbation) from Codsall village to the west.
The principal role of separation is supported by accompanying, localised roles of containment to prevent
sprawl and encroachment into the countryside.

#### **Local Separation**

- 1. <u>Between Codsall and Wolverhampton</u> the gap between Codsall and Wolverhampton varies between 0.2 miles (south east) and 0.8 miles (east) and is vulnerable to erosion (parcels W17 and W18). The Green Belt has a clear role in separating the town of Wolverhampton (the western edge of the West Midlands conurbation) from Codsall village to the west. The principal role of separation is supported by accompanying roles of containment to prevent sprawl and encroachment into the countryside.
- 2. Between Wombourne and Wolverhampton, Dudley and Kingswinford the gap between Wombourne and the settlements that make up the West Midlands conurbation varies between 0.55 miles (north-east to Wolverhampton), 1.8 miles (east to Dudley) and 1 mile (south to Kingswinford). This gap is vulnerable to erosion (parcels W9, W8 and W10). The Green Belt has a clear role in separating the towns of Wolverhampton, Dudley and Kingswinford (the western edge of the West Midlands conurbation) from Wombourne village to the west. The principal role of separation is supported by accompanying, localised roles of containment to prevent sprawl and encroachment into the countryside.

GL Hearn Page 27 of 302

#### WEST SECTOR - PURPOSE 3: SAFEGUARDING THE COUNTRYSIDE FROM ENCROACHMENT

The following areas have been identified as having a particular role in assisting in safeguarding the countryside from encroachment:

- 1. Codsall
- 2. North-west of Wolverhampton
- 3. West of Wolverhampton
- 4. South of Wolverhampton and west of Dudley
- 5. Wombourne
- 6. West of Kingswinford and Stourbridge
- 7. South of Stourbridge
- 8. Telford and Shifnall
- 9. Bridgnorth
- 10. Albrighton and Donnington
- 11. North of Kidderminster
- 1. <u>Codsall</u> Codsall village grew considerably after World War II extending along the major road corridors into the surrounding countryside and absorbing the village of Bilbrook to the north-east. Whilst sections of the southern and north-eastern village edge are contained by roads or stream corridors, many edges are physically less well defined and urban development has encroached into adjoining countryside (with piecemeal intrusion into adjoining fields) and along road corridors (parcels W17 and W18). The Green Belt prevents the further encroachment of urban development associated with the village into the countryside.
- 2. North-west of Wolverhampton Wolverhampton grew considerably during the both the inter war and post-World War II periods and extended into surrounding countryside to the north-west. Its edges are heavily incised with sections of Green Belt extending into the town, often forming narrow corridors that are intruded upon by adjoining urban development. Whilst sections of the edge are well defined by stream corridors, roads or occasional woodland such as the edges of Perton, parts of Penderford and the new i54 South Staffordshire technology park. Many sections are physically less well defined and urban development has encroached into the adjoining countryside with evidence of ribbon development, the piecemeal intrusion of built development into adjoining fields and clusters of built development within its fringes (e.g. Cargill Meats large scale commercial development, Penderford Hall mobile home park, Aldersley High School buildings and the Barnhurst Lane sports centre currently under construction etc.). In addition, there are a large number of open space and sports land uses on the edges and fringes of the town including a number of golf courses. Whilst the edges are less distinct, the Green Belt prevents the further encroachment of urban development associated with the town into the countryside.
- 3. West of Wolverhampton The western edge of Wolverhampton (parcel W18) is physically not well defined and urban development has encroached into the adjoining countryside with evidence of ribbon development, piecemeal intrusion of built development into adjoining fields and many small clusters of dwellings and other built development within its fringes (including Highfields School buildings). To the north, its edges are heavily incised with sections of Green Belt extending into the town, often forming narrow corridors that are intruded upon by adjoining urban development i.e. along the Smestow Valley and around Perton (parcel C1). In addition, there are a large number of open space and sports land uses on the edges and fringes of the town including a number of playing pitches and sports clubs (e.g. Old Wulfrunians Club, Wolverhampton Rugby Union Football Club). Whilst the edges of the town are less distinct, the Green Belt prevents the further encroachment of urban development associated with the town into the countryside.

GL Hearn Page 28 of 302

- 4. South of Wolverhampton and west of Dudley The area south of Wolverhampton and west of Dudley (parcels W7, W8, W9 and W10) is not well defined and urban development has encroached into the adjoining countryside with evidence of ribbon development, piecemeal intrusion of built development into adjoining fields and many small clusters of dwellings and other built development within its fringes (including training and residential development at Baggeridge, sewage works, Penn Hall School buildings, Colton Hills Community School buildings and Ellowes Sports College buildings). The edge is also heavily incised with narrow sections of Green Belt extending into the town, often forming narrow sections that are intruded upon by adjoining built development associated with Kingswinford and Sedgley. Whilst the edges of the town are less distinct, the Green Belt prevents the further encroachment of urban development associated with the town into the wider countryside.
- 5. North-west, west and south of Wombourne Wombourne village grew considerably in the 1950s, 60s and 70s extending along the major road corridors, the canal and Smestow River into the surrounding countryside. Whilst sections of the village edge are contained by roads, the river and the canal. Many edges are physically less well defined and urban development has encroached into adjoining countryside (with piecemeal intrusion into adjoining fields), along road corridors and there are many small clusters of dwellings and other built development within its fringes (including the Smestow Bridge Industrial Estate) (parcel W7). Ribbon development and small scale clusters of built development are evident between the village and outlying small scale settlements of Trysull, Swindon and Himley. The Green Belt prevents the further encroachment of urban development associated with the village, and associated outlying settlements, into the countryside.
- 6. West of Kingswinford and Stourbridge Wooded ridgelines along sections of edge near Kingswinford, Wordsley and Stourbridge provide a well-defined edge to the urban development (parcels W4, W5 and W6). However, the edge is less well defined in places and urban development has encroached in to the adjoining countryside with evidence of ribbon development, piecemeal intrusion into adjoining fields and small clusters of dwellings and other built development within it fringes (i.e. built development associated with sports facilities, sewage works, small business land uses). Ribbon development and small scale clusters of built development are evident between the edge of the conurbation and outlying small scale settlements of Stourton and Prestwood. A section of its edge is heavily incised with a section of Green Belt extending into the town along the River Stour, forming narrow corridor that is intruded upon by adjoining urban development and in sections almost completely segregated from the wider countryside. The village of Kinver lies to the west and is physically joined with the hamlet of Dunsley. Whilst these settlements are physically well defined in places by woodland, the River Stour and roads. There is evidence of ribbon development and piecemeal intrusion into adjoining fields. The Green Belt prevents the further encroachment of urban development associated with the conurbation, and associated outlying settlements, into the countryside.
- 7. South of Stourbridge Occasional blocks of woodland and roads provide some physical edge to urban development although this is limited and much of the southern edge consists of residential estates backing onto Stourbridge Golf Club (parcel W2). In many places the edge is less well-defined and urban development has encroached into the countryside with evidence of piecemeal intrusion into adjoining fields, small clusters of dwellings and other development on its fringes and ribbon development along A and B roads that has eroded physical separation with the adjoining settlements of Iverley and Hagley to the south. Whilst the edges of the town are less distinct, the Green Belt prevents the further encroachment of urban development associated with the town into the countryside.

GL Hearn Page 29 of 302

- 8. Telford and Shifnal Telford new town was designated in the 1960s. It was subject to major growth in the 1960s and 70s and remains one of the fastest growing towns in the UK with major commercial development continuing along its eastern edge (Stafford Park) adjoining the Green Belt. Whilst many sections of the eastern edge of the town are well defined by roads and woodland. The town and its eastern edge are subject to major development pressure with new development encroaching into the countryside, although outwith the Green Belt. Here the Green Belt boundary follows the district authority boundary and in places is physically less well defined. Shifnal village grew considerably after World War II with many residential estates extending along road corridors into the surrounding countryside. Sections of the settlement edge are physically well-defined by road corridors. However many edges are physically not well-defined and urban development has encroached into the adjoining countryside (with piecemeal intrusion into adjoining fields), along roads and with clusters of dwellings and other urban development within its fringes (e.g. commercial development adjoining the railway line). The current Green Belt boundary does not follow the current built edges of the village to the north and east, and there are proposals to extend the village to further to the north and east. The Green Belt prevents the further encroachment of urban development associated with the town and village into the countryside (parcels W10 and W15).
- 9. Bridgnorth Bridgnorth grew initially as a market town at the centre of a system of radial roads linking it to more rural, smaller settlements. It consists of High Town and Low Town (situated on either sides of the River Severn); the latter bordering onto the Green Belt. The town grew considerably after World War II through large scale residential estates. The majority of the edge is physically well defined by roads, and woodland (notable wooded scarps to the east). However, along its south-eastern edges, urban development has encroached into the adjoining open countryside with piecemeal intrusion into adjoining field by residential estates and commercial development (notably that to the south/ south-west of Stourbridge Road and Worcester Road). To the east, Stanmore Industrial Estate and small clusters of residential properties are the legacy of RAF Bridgnorth. Whilst the base was closed in the 1960s with the majority of the camp removed and replaced by a country park, many of its edges are not clearly defined and built development has encroached into open countryside (with piecemeal intrusion into adjoining fields). The Green Belt prevents the further encroachment of urban development associated with the town (and built development at Stanmore) into the countryside (parcels W5, W6 and W10).
- 10. Albrighton and Donington The adjoining villages of Albrighton and Donington grew considerably after World War II with large scale residential estates extending along the major road corridors into the surrounding countryside. Whilst many sections of the settlement edge are physically well-defined by watercourses, the railway line, and roads. Sections of the settlement edge to the west and south are less well-defined and urban development has encroached into adjoining countryside with evidence of piecemeal intrusion into adjoining fields, small clusters of dwellings and other development on its fringes and ribbon development along road corridors to the south including along the main A roads east towards Codsall and Wolverhampton. To the north-west, RAF Cosford occupies an extensive built area within the Green Belt. It contains many areas of built development, associated with residential, training, logistics and athletics, and many of its edges are physically less well-defined and built development intrudes into open countryside. The Green Belt prevents the further encroachment of urban development associated with the villages (and built development at RAF Cosford) into the countryside (parcel W16).
- 11. North of Kidderminster Kidderminster grew considerably after World War II with many residential estates extending north-west, north and north-east into adjoining countryside and towards the settlements of Wolverley, Cookley and Caunsall (parcel W5). These outlying small scale settlements were also were subject to piecemeal post war growth with the addition of residential estates, albeit smaller in scale. The majority of these settlements edges are physically not well defined and urban development has encroached into the adjoining countryside (with piecemeal intrusion into adjoining fields), along roads and with clusters of dwellings and other development

GL Hearn Page 30 of 302

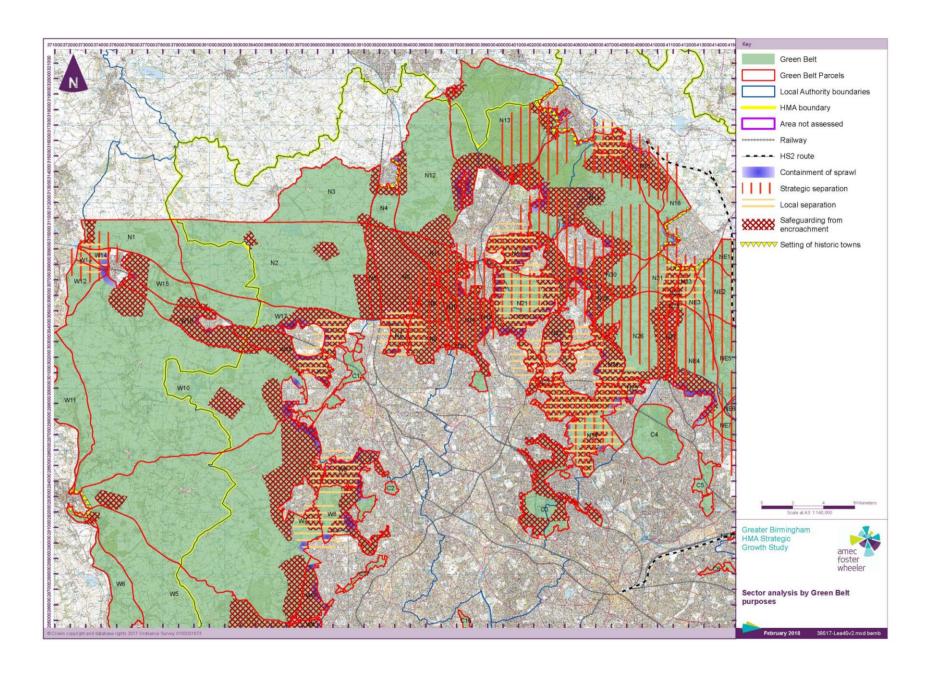
within their fringes. The Green Belt prevents the further encroachment of urban development associated with the town and villages into the countryside.

#### **WEST SECTOR - PURPOSE 4: PROVIDING SETTING**

There is one historic town in this sector (Bewdley is dealt with in the South Sector) Bridgnorth, with the Green Belt providing the setting.

<u>Setting for Bridgnorth</u> – The area of Green Belt to the north, east and south of the town has potential to form a part of the setting of the historic core of Bridgnorth (parcels W5, W6, W7 and W10). The Bridgnorth Conservation Area extends to the west and east of the River and includes parts of both High Town and Low Town that border the Green Belt within the vicinity of the River Severn and there is potential for wider parts of the Green Belt to form a part of the visual setting of the town.

GL Hearn Page 31 of 302



GL Hearn Page 32 of 302

#### **NORTH SECTOR - PURPOSE 1: CONTAINING SPRAWL**

Containment of sprawl across this sector is concentrated on those areas of built edge where there is no clear, substantial boundary to act as a division between a built edge and open countryside. These are:

- 1. North of Wolverhampton
- 2. Bloxwich and north-east of Walsall
- 3. Brownhills, Aldridge and Pelsall Cluster
- 4. East of Walsall
- 5. Lichfield
- 6. Norton Canes and Burntwood Cluster
- 7. Great Wyrley and Cheslyn Hay
- 8. North of Cannock
- 9. Penkridge
- 10. Rugeley, Armitage and Handsacre
- 1. <u>North of Wolverhampton</u> Wolverhampton has historically expanded into open countryside to the north. Whilst some sections are physically defined by roads, overall the lack of a well-defined edge provides limited containment to check sprawl between Bushbury and Westcroft and north of Westcroft (parcel N7). There is also evidence of sprawl along the A460 Cannock road towards the M54.
- 2. <u>Bloxwich and north-east of Walsall</u> The edges of Bloxwich and Walsall are incised and highly irregular and the degree of settlement containment is extremely varied (parcels N18, 19 and N21). Whilst some sections are physically defined by roads, overall there is lack of a physically well-defined edge which provides limited containment to check sprawl into remaining areas (often corridors) of Green Belt that are heavily fragmented. Here the Green Belt has a clear containment role which maintains a clear division between the town and areas of open countryside.
- 3. Brownhills, Aldridge and Pelsall Cluster The eastern edge of Walsall grew extensively post World War II, mainly through large scale residential estates. Similar large scale growth has been experienced by the towns and villages located within the fringes of the conurbation to the north-east (i.e. Burntwood, Brownhills, Walsall Wood, Pelsall, Aldridge, Shelfield and Rushall) (parcels N21, N22, N29, and N30). These settlements are in many cases the result of the historic merging of smaller scale settlements (villages and hamlets) and have resulted in dense mosaic of settlements and other built development (large-scale commercial/ industrial developments) and mineral workings. Here the Green Belt is heavily fragmented and its edges are highly irregular and incised. Few sections of settlement edge are physically contained and there is a general absence of a containing boundaries and evidence of urban built development encroaching into the adjoining countryside. Here the Green Belt has a clear containment role which maintains a clear division between these settlements and open countryside.
- 4. <u>East of Walsall</u> This section of Green Belt forms a corridor of varying width that extends southwards from the B4151 and forms a network of green corridors and spaces within the conurbation (parcels N22 and N24). To the north of the M6 the edges are heavily incised and irregular and the degree of settlement containment is extremely varied. Overall there is a lack of a physically well-defined edge within this location which provides limited containment to check sprawl into open countryside to the north. Here the Green Belt has a clear containment role which maintains a clear division between the town and open countryside.
- 5. <u>Lichfield</u> Lichfield grew considerably post World War II, predominantly through large scale residential estates, extending into the surrounding countryside. Much of the settlement adjoining the Green Belt is well contained by road corridors including the A5192, A51 and A38. Although short sections of the edge are less well-defined near Beacon Park (west) and east of the A5127 (south). Further south the village of Shenstone has grown with the addition of post War World II small scale residential estates and industrial land uses (to the west) and the degree of containment provided by roads and watercourses is varied (parcel N14). The Green Belt has a clear containment role which maintains a clear division between the town and countryside.

GL Hearn Page 33 of 302

- 6. Norton Canes and Burntwood Cluster The town of Burntwood and village of Norton canes are two of a number of settlements within the area that have grown extensively in recent times. Here the presence of settlements and other development has resulted in a fragmented areas of Green Belt. Whilst roads play a key role in physically defining the edges of these settlements (including the M6 toll south of Norton Canes). The degree of containment is varied and in places there an absence of a physically well-defined boundary to prevent sprawl into open countryside (parcels N14 and N17). Here the Green Belt has a clear containment role which maintains a clear division between these settlements and open countryside.
- 7. Great Wyrley and Cheslyn Hay whilst these settlements are technically separate villages, they have grown into one, and now form urbanisation to the south of M6 Toll Junction T7 with Cannock abutting the north of Junction T7 (parcels N10, N18, N19 and N21). The eastern edge of Great Wyrley and western edge of Cheslyn Hay have extended into open countryside (albeit disrupted by past quarrying uses) and as such present uncontained edges. The Green Belt contains further additions to such development.
- 8. North of Cannock Cannock grew extensively post World War II and now physically adjoins the settlements of Cheslyn Hay and Great Wyrley to the south. Whilst some sections of these settlement edges are physically well-defined by roads, blocks/ belts of woodland, watercourses and sections of canal, there is a general absence of a containing boundary and limited containment to prevent sprawl into open countryside. Here the Green Belt has a clear containment role which maintains a clear division between these settlements and open countryside (parcels N12, N13 and N14).
- 9. Penkridge The edge of the town is physically well-defined by the M6 corridor to the east and railway line to the west. However, the north-eastern part of the settlement edge (parcel N12) is less well contained and there an absence of a physically well-defined boundary to prevent sprawl into open countryside. Here the Green Belt has a clear containment role which maintains a clear division between these settlements and open countryside.
- 10. Rugeley, Armitage and Handsacre The market town of Rugeley grew considerably to the north, west and south post World War II, extending into the surrounding countryside and towards the neighbouring villages of Armitage and Handsacre to the south-east. Whilst some sections of these settlement edges are physically well-defined by roads and woodland (such as Chetwynd's Coppice) to the south. There is a general absence of containing boundaries and evidence of urban built development encroaching into the adjoining countryside (parcels N13, N14 and N15). Here the Green Belt has a clear containment role which maintains a clear division between these settlements and open countryside.

#### **NORTH SECTOR - PURPOSE 2: MAINTAINING SEPARATION**

There are six areas of strategic separation across the sector, between:

- 1. Wolverhampton, Bloxwich and Cannock
- 2. Cannock and Rugeley
- 3. Cannock, Burntwood and Brownhills
- 4. Lichfield and Rugelev
- 5. Lichfield, Burntwood, Brownhills and Sutton Coldfield
- 6. Walsall, Aldridge and Sutton Coldfield

There are six local areas of separation:

- 1. Norton Canes Cluster
- 2. Brownhills Cluster
- 3. Between Lichfield and Shenstone
- 4. Between Rugeley and Armitage
- 5. Between Wolverhampton and villages to the north

6. Walsall, Aldridge, Streetly and Pheasey

GL Hearn Page 34 of 302

#### STRATEGIC SEPARATION

- 1. Between Wolverhampton, Bloxwich and Cannock The gap between the southern part of Great Wryley village (on the southernmost tip of the Cannock area of built development) and the Wolverhampton and Bloxwich parts of the West Midlands conurbation is currently around 1 mile. This is a spatially complex and fragmented area of Green Belt that contains a number of small villages and hamlets (Coven Heath, Featherstone, Essington, Cross Green, Great Saredon, Wedges Mills, Shareshill, Springhill and Newtown) as well as other types of development (M54/ M6 service station, mineral workings, industrial /commercial areas). The resulting higher density and less distinct settlement pattern narrows the sense of separation and is strategically vulnerable to erosion (parcels N6, N7, N8, N9, N10, N11, N18, N19, N20 and N21).
- 2. <u>Between Cannock and Rugeley</u> The gap between the north-eastern part of Cannock and Rugeley is currently around 2.3 miles and is strategically vulnerable to erosion (parcels N13 and N14). Whilst the area in between is dominated by the heavily wooded Cannock Chase AONB, there is evidence of incremental erosion of the gap through ribbon development along the main road corridors.
- 3. Between Cannock, Burntwood and Brownhills All three towns have all grown extensively through post war extensions resulting in narrows gaps between them. The gap between Cannock and Burntwood is around 1 mile and its southern part is dominated by the village of Norton Canes and built development adjoining the M6 Toll that narrows the sense of separation. The M6 Toll corridor is an area under growth pressure. The gap between Burntwood and Brownhills is around 0.4 miles and is a spatially complex area dominated by the M6 Toll/ A194 interchange and contains small clusters of built development (residential and sports) that further narrow the sense of separation. Overall these areas are strategically vulnerable to erosion (parcels N14, N17 and N21)
- 4. <u>Between Lichfield and Rugeley</u> The gap between Lichfield and Rugeley is around 4.25 miles. Whilst the area north-west of Lichfield is predominantly rural farmland and has a relatively low density settlement pattern. The area south of Rugeley has extended towards the villages of Armitage and Handsacre, and there is evidence of ribbon development and increased settlement along the connecting A451. This area is strategically vulnerable to erosion (parcels N14, N15 and N16).
- 5. Between Lichfield, Burntwood, Brownhills and Sutton Coldfield The gap between Lichfield and the towns of Burntwood and Brownhill to the west is around 1.85 miles and 3 miles respectively. The presence of small settlements (i.e. Woodhouses and Hammerwich) and other types of built development (ribbon development, clusters of residential properties, the A5 and M6 Toll) to the west narrow the sense of separation. The gap between Lichfield and Sutton Coldfield is around 4 miles. This area is dominated by rural farmland although there is evidence of incremental erosion of the gap through ribbon development and extensions to small villages along the connecting road corridors such as the A5217. Overall this area is strategically vulnerable to erosion (parcels N24, N27, N28, N29, N30, N31, N32, N33, NE3 and NE4).
- 6. <u>Between Walsall, Aldridge and Sutton Coldfield</u> the gap between these towns is around 1 to 1. Miles as part of a complex built edge which has evolved with the growth of the individual settlements. The land is predominantly in agricultural use with isolated farmsteads and is dominated topographically by Barr Beacon which is part of a north-south ridge which extends from Pheasey to Aldridge. Some of the roads exhibit linear sprawl (for example along the B4154 Southwood Road which reduces the sense of separation, but in turn emphasizes the vulnerability of this strategic gap to further erosion from sprawl and encroachment (parcels N23 and N34).

GL Hearn Page 35 of 302

## **LOCAL SEPARATION**

- 1. Norton Canes Cluster Norton Canes village forms one of a mosaic of settlements including the towns of Cannock (around 0.5 miles to the west) Burntwood (around 0.4 miles to the east) and Brownhills (around 1 mile to the south-east) as well as a number of smaller scale settlements i.e. Pelsall or suburbs of Brownhills to the south i.e. Clayhanger. This is a spatially complex and fragmented area of Green Belt that contains a number of settlements and other types of development (mineral workings and industrial /commercial areas). Settlements and other development now dominate the area and have severely encroached into open countryside with the few remaining areas of open countryside forming corridors of land that are often urban fringe in character and intruded upon by urban built development. The resulting higher density and less distinct settlement pattern narrows the sense of separation and is locally vulnerable to erosion (parcels N17, N19, N21 and N22).
- 2. <u>Brownhills Cluster</u> This is a spatially complex area consisting of a mosaic of settlements between the edge of Walsall and Brownhills, around 1.9 miles to the north-east. It contains a number of smaller scale settlements or suburbs of Walsall and Brownhills i.e. Pelsall, Rushall, Pheasey, Streetly, Aldridge, High Heath/Shelfield and Daw End as well as other types of development (mineral workings and industrial/ commercial areas). Post war expansion of these settlements has reduced with width of the Green Belt and resulted in a heavily fragmented area of Green Belt. Settlements and other development now dominate the area and have severely encroached into open countryside with the few remaining areas of open countryside forming narrow corridors of land that are often urban fringe in character and intruded upon by urban built development. The resulting higher density and less distinct settlement pattern and a narrow the sense of separation and is locally vulnerable to erosion (parcels N22 and N23).
- 3. <u>Between Lichfield and Shenstone</u> The gap between Lichfield and Shenstone village to the south is around 1.8 miles. This area is dominated by rural farmland although there is evidence of incremental erosion of the gap through ribbon development and other development along the A5217 associated with the M6 Toll and A5 interchange. Overall these areas are locally vulnerable to erosion (parcels N28, N31, N32 and N33).
- **4.** <u>Between Rugeley and Armitage</u> The gap between Rugeley and the village of Armitage to the south-east is around 0.6 miles. The presence of other types of built development i.e. mobile home parks and small clusters of residential development along the A513, further narrows the sense of separation and this area is locally vulnerable to erosion (parcel N15).
- 5. Between Wolverhampton and villages to the north This is a spatially complex area consisting of a mosaic of settlements and other types of development (commercial/ industrial, prison facilities, M54 junction development and mineral workings). The gap between Wolverhampton and small settlements to the north is narrow and the sense of separation between these settlements and the conurbation is further reduced by the presence of other types of development. Further north, the mosaic of built development continues with a high presence of settlements (Coven, Cross Green, Slade Heath, Standeford, Shareshill, Brewood and Calf Heath) and other types of development such as the extensive area of HMPs near Featherstone, large scale commercial/ industrial area at Four Ashes, ribbon development and small clusters of residential buildings. The resulting higher density and less distinct settlement pattern narrows the sense of separation and is locally vulnerable to erosion (parcels N5, N6, N7, N8 and N9).
- **6.** Between Walsall, Aldridge, Streetly and Pheasey complementing strategic separation, the land between these settlements also maintains separation between the various local communities which form part of the complex built edge which characterizes the broader area. The gap between settlements is variable and in places (for example between Aldridge and Streetly) is almost non-existent. Generally, however, a sense of openness is retained through agricultural use and isolated

GL Hearn Page 36 of 302

farmsteads, and to the both through the presence of Barr Beacon. The area (parcels N23, N24, N25 and N34) exhibits signs of encroachment and localised sprawl and is therefore part of a vulnerable local gap.

### NORTH SECTOR - PURPOSE 3: SAFEGUARDING THE COUNTRYSIDE FROM ENCROACHMENT

The following areas have been identified as having a particular role in assisting in safeguarding the countryside from encroachment:

- 1. North of Wolverhampton
- 2. North of Bloxwich and Walsall, including Cannock and Burntwood
- 3. North-east of Walsall including Brownhills and Aldridge
- 4. Corridor between Walsall, West Bromwich, Birmingham and Sutton Coldfield
- 5. North of Sutton Coldfield
- 6. Rugeley, Armitage and Handsacre
- 7. Lichfield
- 8. Penkridge
- 9. North-east of Telford
- 1. North of Wolverhampton- Growth of Wolverhampton has combined with growth of numerous smaller scale outlying settlements (villages and hamlets) and other types of development (e.g. HMP Featherstone, Four Ashes industrial/ commercial development, M54 junction commercial development etc.), to produce a higher density and less distinct settlement pattern on the fringes of the main conurbation and a fragmented area of Green Belt. Whilst a short section of the M54 corridor provides a containing boundary on the northernmost edge of the Wolverhampton, there is a general absence of containing boundaries and evidence of urban built development encroaching into the adjoining countryside in the form of piecemeal intrusion into adjoining fields, along roads (ribbon development) and clusters of built development. The Green Belt prevents the further encroachment of urban development into the countryside (parcels N2, N5, N6, N7, N8, N9, N10, N20).
- 2. Between Bloxwich/Walsall, Cannock and Burntwood The edges of Bloxwich and Walsall (northern edge of the West Midlands conurbation) are incised and highly irregular. Cannock and Burntwood to the north and north-east have grown, often merging into small scale settlements (villages and hamlets), to produce a dense mosaic of settlements and other built development (associated with numerous mineral workings and outlying commercial/ industrial developments) that encroach into the few remaining areas of open countryside, often urban fringe in character. Whilst short sections of settlement edge are physically contained, there is a general absence of a containing boundaries and evidence of urban built development encroaching into the adjoining countryside in the form of piecemeal intrusion into adjoining fields, along roads (ribbon development) and clusters of built development (parcels N17, N18, N19, N21, and N22).
- 3. Between Walsall, Brownhills and Aldridge Large scale growth has been experienced by the towns and villages located within the fringes of the conurbation to the north-east (i.e. Burntwood, Brownhills, Walsall Wood, Pelsall, Aldridge, Shelfield and Rushall) (parcels N21, N22 and N23). These settlements are in many cases the result of the historic merging of smaller scale settlements (villages and hamlets) and have resulted in dense mosaic of settlements and other built development (large-scale commercial/ industrial developments) and mineral workings). The Green Belt is heavily fragmented with a large number of open space and sports land uses on the edges and fringes of the town including a number of golf courses. Few sections of settlement edge are physically contained and there is a general absence of a containing boundaries and evidence of urban built development encroaching into the adjoining countryside.
- 4. Corridor between Walsall, West Bromwich, Birmingham and Sutton Coldfield This section of Green Belt (predominantly parcel N34) forms a corridor of varying width that extends southwards from the B4151 into the conurbation. Its edges are heavily incised and irregular and sections of the Green Belt often form narrow corridors that are intruded upon (and at times encircled) by adjoining

GL Hearn Page 37 of 302

urban development. Whilst some sections of the edge are well defined by stream corridors, roads or woodland blocks. Many sections are physically less well defined and urban development has encroached into the adjoining countryside with evidence of ribbon development, the piecemeal intrusion of built development into adjoining fields and clusters of built development within its fringes (i.e. schools, leisure, infrastructure etc.The Green Belt prevents the further encroachment of urban development associated with the town into the countryside.

- 5. North of Sutton Coldfield Sutton Coldfield and its edges are highly irregular in shape and definition. Some edges are physically well-defined by roads and small blocks of woodland whilst along others there is a general absence of containing boundaries and evidence of urban built development encroaching into the adjoining countryside in the form of piecemeal intrusion into adjoining fields, along roads (ribbon development) and clusters of built development on its fringes (parcels N25 and N27). In addition, there are a number of open space and sports land uses on the edges and fringes of the conurbation including two golf courses (and associated built development). The Green Belt prevents the further encroachment of urban development into the countryside.
- 6. Rugeley, Armitage and Handsacre Rugeley grew post World War II into the surrounding countryside and towards the neighbouring villages of Armitage and Handsacre to the south-east. These villages were also subject to piecemeal growth, albeit smaller in scale, merging to form one single settlement. Whilst some sections of these settlement edges are physically well-defined by roads and woodland (such as Chetwynd's Coppice) to the south. There is a general absence of containing boundaries and evidence of urban built development encroaching into the adjoining countryside in the form of piecemeal intrusion into adjoining fields, along roads (ribbon development) and clusters of built development |(including that associated with open spaces, golf course, mobile home park etc.). Whilst the edges of the town and outlying settlements are not distinct, the Green Belt prevents the further encroachment of urban development into the countryside (parcels N13, N14 and N15).
- 7. <u>Lichfield (including Lichfield to Birmingham)</u> Much of the settlement adjoining the Green Belt is well contained by road corridors including the A5192, A51 and A38. Although short sections of the edge are less well-defined and there is evidence of built development encroaching into the adjoining countryside in the form of minor ribbon development (southernmost edge) and small scale piecemeal built development off Christchurch Lane and Beacon Park. In addition, there is evidence of wayside development along the A5127 corridor between Lichfield and Birmingham, including encroachment into the countryside (i.e. ribbon development and piecemeal encroachment into fields) around the A5127 village of Shenstone. The Green Belt prevents the further encroachment of urban development into the countryside.
- 8. Penkridge The edge of the town is physically well-defined by the M6 corridor to the east and railway line to the west. However, there are sections of the settlement edge, adjoining the Green Belt that are less well defined and built development has encroached into the countryside. This is notable along the southern edge of the settlement in the form of piecemeal intrusion into adjoining fields, along roads (ribbon development) and clusters of built development (including that associated with the canal, college and conference centre etc.). The Green Belt prevents the further encroachment of urban development into the countryside (parcels N26, N27, N28, N31, N32, N33).
- 9. North-east of Telford The definition of the urban edge of Telford in this locality is weak, reflecting what appears to be incremental eastward expansion of development with no clear outer boundary which might be used to define a development limit. As such the land between the M54 and the A5 has been subject to, and is and further risk from, encroachment which the Green Belt which is drawn to the undefined boundary of Telford, contains (parcel N1).

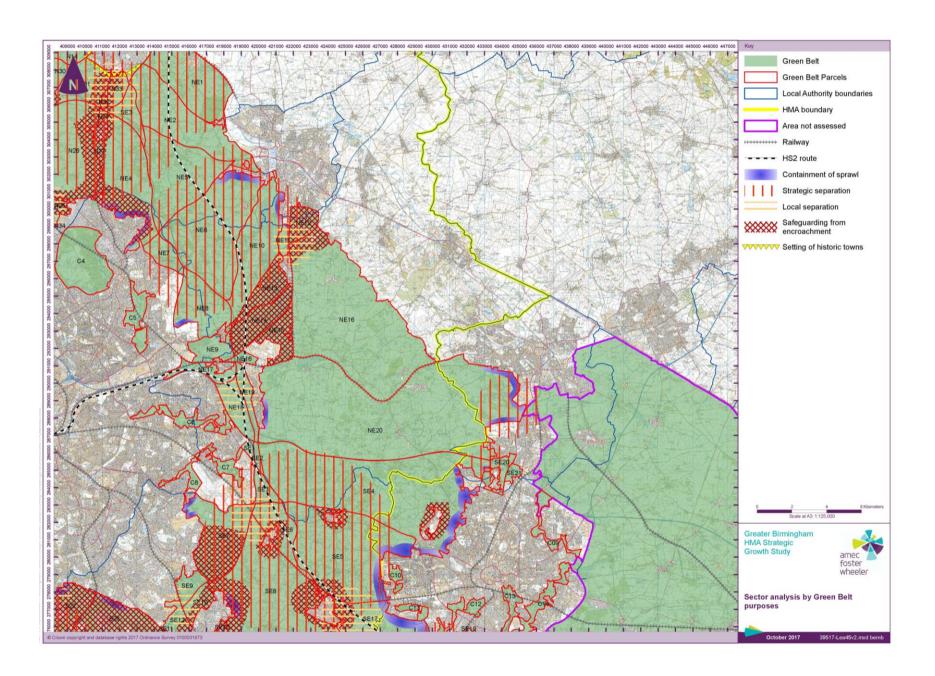
GL Hearn Page 38 of 302

### **NORTH SECTOR - PURPOSE 4: PROVIDING SETTING**

There are three historic towns in this sector Lichfield, Rugeley and Penkridge the Green Belt providing an important aspect of the setting which also includes the Cannock Chase AONB.

- Setting for Lichfield The area of Green Belt to the west of the town has potential to form a part of
  the setting of the historic core of Lichfield. The Lichfield Conservation Area extends to the west of
  the town into Green Belt at Beacon Park and there is potential for wider parts of the Green Belt to
  form a part of the setting of the town (parcels N14, N16, N31 and N33).
- 2. <u>Setting for Rugeley</u> The area of Green Belt to the west of the town has potential to form a part of the setting of the historic core of Rugeley. Whilst the Rugeley Conservation Area does not extend into Green Belt its closest point is within the western edge of the town near the A460), and there is potential for the Green Belt to form a part of the setting of the town (parcels N13 and N14).
- 3. <u>Setting for Penkridge</u> The area of Green Belt to the west of the town has potential to form a part of the setting of the historic core of Penkridge. Whilst the Penkridge Conservation Area does not extend into Green Belt (its closest point is within the western edge of the town, east of the railway line), and there is potential for the Green Belt to form a part of the setting of the town (parcels N4 and N12).

GL Hearn Page 39 of 302



GL Hearn Page 40 of 302

### NORTH EAST SECTOR - PURPOSE 1: CONTAINING SPRAWL

The following areas have been identified as containing the sprawl of large built-up areas:

- 1. To the south west of Nuneaton at Arbury/Heath End
- 2. To the south east of Coleshill
- 3. To the north east of Minworth
- 4. To the north east of Sutton Coldfield at Whitehouse Common, Moor Hall and Roughley
- 5. To the south west of Tamworth at Fazeley
- 1. <u>To the south west of Nuneaton at Arbury/Heath End</u> development shares an undefined boundary with the Green Belt in this location, the resulting in the potential for uncontained sprawl of the built extent into open countryside to the west (parcel NE20).
- 2. <u>To the south east of Coleshill</u> the south eastern edge of the linear settlement of Coleshill is largely open to the countryside with few boundaries to check further expansion (parcel NE20).
- 3. <u>To the north east of Minworth</u> land has been allocated for industrial/commercial development in this location, which will create a new built edge to existing development north of the A4097. As such it represents sprawl into open countryside which is potentially uncontained, and sets the precedent for future growth of this nature (parcel NE8).
- 4. To the north east of Sutton Coldfield at Whitehouse Common, Moor Hall and Roughley land in this north eastern arc falls broadly into two areas: land to the south which is bounded by the M6 Toll and land to the north (parcel NE4) which has poorly defined boundaries and has been the focus for incremental change. Although land to the south is largely contained by minor roads associated with the built edge of Sutton Coldfield (parcel NE7), and further to the north east by the M6 Toll, the land retains the character of open countryside. In both cases, incremental extension of the urban edge is prevented by Green Belt designation.
- 5. To the south west of Tamworth at Fazeley this is a complex edge which has developed largely before the Green Belt was designated (parcel NE6). Whilst there are various boundaries to the south which might contain development, the Green Belt nevertheless prevents further localised sprawl. The built edge to the west of Dosthill is similarly uncontained, but the River Tame and associated flooded gravel workings act as a natural barrier.

### **NORTH EAST SECTOR - PURPOSE 2: MAINTAINING SEPARATION**

There are four areas of STRATEGIC separation and two areas of LOCAL separation within this north east sector.

Areas of STRATEGIC separation are:

- 1. Between Bedworth and Nuneaton
- 2. Between Birmingham and Tamworth
- 3. Between Tamworth and Lichfield

Areas of LOCAL separation are:

- 1. Between Tamworth and Kingsbury
- 2. Between Birmingham and Coleshill

GL Hearn Page 41 of 302

### STRATEGIC SEPARATION

- 1. <u>Between Bedworth and Nuneaton</u> despite being narrowed to the scale of a few small/medium-scale fields, the remaining gap nevertheless remains and is strategically significant in maintaining the separate identity of Bedworth and Nuneaton (parcel NE20).
- 2. <u>Between Birmingham and Tamworth</u> this is an extensive tract of countryside (parcels NE5, NE6, NE7, NE8 and NE10) which maintains a relatively strong open countryside character, with variety of uses within and associated settlement pattern. The gap between Birmingham and Tamworth remains significant, although there is potential (and some evidence) for its erosion though incremental change both on the edge of Birmingham and Tamworth and various uses within.
- 3. <u>Between Tamworth and Lichfield</u> at the north eastern edge of the Green Belt, the separation of Tamworth and Lichfield is maintained. The A38 to the east of Lichfield and the River Tame to the west of Tamworth provide clear boundaries to parcels NE1 and NE2 and thus the gap between the two towns which contains the villages of Whittington (and Barracks) and Hopwas.

#### **LOCAL SEPARATION**

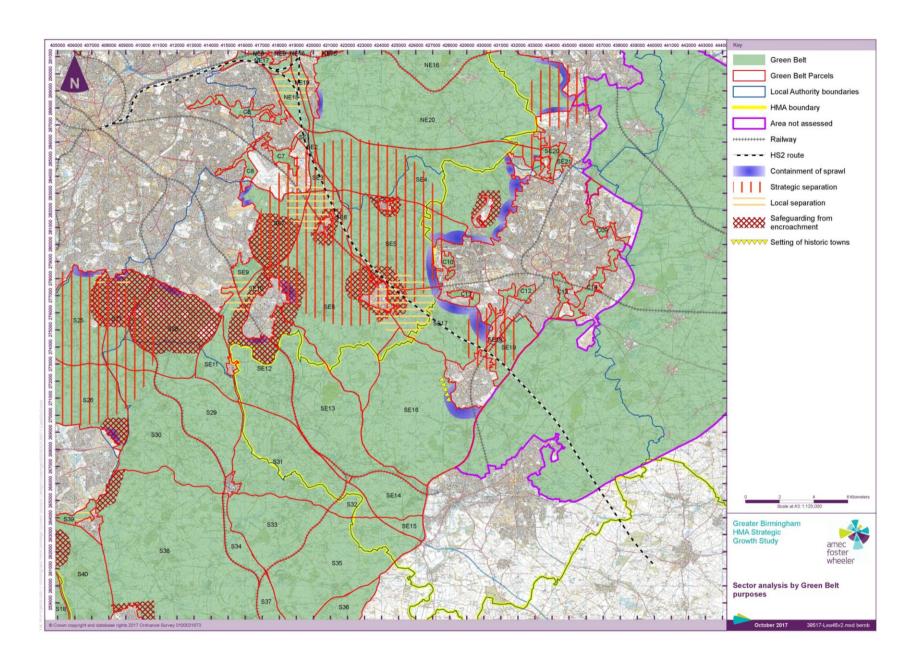
- 1. <u>Between Tamworth and Kingsbury</u> the gap between these settlements (parcels NE11 and NE12) is characterised by a disrupted landscape of mineral workings, infrastructure and isolated industrial and residential development. As such the Green Belt helps to maintain a sense of separation in this vicinity, albeit in the context of a compromised sense of openness generally.
- 2. Between Birmingham and Coleshill the Green Belt forms part of a clear gap between the Birmingham conurbation and Coleshill (parcels NE17, NE18 and NE19), demarcated by the strong boundaries of the M6 and M6 Toll, in particular. Notwithstanding the severance and containment of the land, there remains a strong sense of separation between the conurbation contained to the west of the M6 and Coleshill contained to the east of A446, with clear tracts of (relatively) open countryside remaining between the road corridors.

## NORTH EAST SECTOR – PURPOSE 3: SAFEGUARDING THE COUNTRYSIDE FROM ENCROACHMENT

There are two areas were encroachment into open countryside is being clearly prevented through Green Belt designation:

- 1. Land between Coleshill and Kingsbury
- 2. Land between Tamworth and Kingsbury
- 1. <u>Land between Coleshill and Kingsbury</u> development at Hams Hall distribution centre has extended the built footprint of the Birmingham Conurbation northwards towards Kingsbury (and Tamworth) along road and rail corridor. There is evidence of actual and potential encroachment in the land contained by the M42 and the railway line running south north (parcels NE13, NE14 and NE15).
- 2. <u>Land between Tamworth and Kingsbury</u> the Green Belt in this vicinity (principally parcels NE11 and NE12) has been disrupted by mining activity, infrastructure and fragmented development and is consequently at risk of further incremental encroachment in this relatively narrow gap between Tamworth and Kingsbury, The Green Belt prevents further development which would contribute to the erosion of the remaining open countryside in this location.

GL Hearn Page 42 of 302



GL Hearn Page 43 of 302

### **SOUTH EAST SECTOR - PURPOSE 1: CONTAINING SPRAWL**

There are four areas where Green Belt is directly containing actual or potential sprawl though the absence of a substantive boundary:

- 1. Land to the south west of Coventry at Westward Heath/University
- 2. Land to the west of Coventry at Tile Hill
- 3. Land to the north west of Coventry at Upper Eastern Green, Allesley and Keresley
- 4. Land to the north of Solihull at Elmdon
- 5. Land to the west of Kenilworth at Borrowell
- 1. <u>Land to the south west of Coventry at Warwick University</u> the progressive expansion of the University has resulted in incursion into the Green Belt which is creating the beginning of sprawl and vulnerability to further development of this nature in this vicinity. Development in this location is also compromising the strategic gap between Coventry and Kenilworth, with the distance between the settlements around 1.5km at its narrowest point.
- 2. Land to the west of Coventry at Tile Hill development has been pushing into open countryside in this location in a seemingly unco-ordinated fashion, with no reference to long term boundaries. The Green Belt, in principle, prevents further sprawl of this kind. Some of this development is recent, and appears to be using the small and medium-scale fields with their often substantial hedgerows, as development parcels.
- 3. Land to the north west of Coventry at Allesley Green, Allesley and Keresley this is a complex area which displays a typical urban edge, with a number of schools, for example, occupying Green Belt adjacent to more contiguous residential development to the east. As such, the relationship between town and country and hence the role of the Green Belt in maintaining that distinction is complex. Redevelopment of the Keresley Colliery site as a B8 distribution depot potentially places additional development pressure on the locality.
- 4. <u>Land to the north of Solihull at Elmdon</u> whilst the interface between the built edge of Solihull and the Green Belt in this location is relatively limited, this land is part of the remaining Green Belt between the M42 and the eastern extent of the Birmingham conurbation. As such, the significance of its role in containing (albeit modest) sprawl is enhanced. The remainder of the edge of Solihull to the south is largely contained by Damson Parkway, although there is some evidence of localised sprawl along Hampton Lane towards Catherine-de-Barnes.
- **5.** Land to the west of Kenilworth at Borrowell the built edge of the town has extended in a reasonably ordered fashion, although it is not contained by any significant boundary, with gardens typically backing onto open countryside. The Green Belt clearly acts to contain further development of this nature.

### **SOUTH EAST SECTOR - PURPOSE 2: MAINTAINING SEPARATION**

The following areas have been identified as having a STRATEGIC role in separating towns:

- 1. Between Birmingham and Coventry
- 2. Between Coventry and Kenilworth
- 3. Between Coventry and Bedworth

The following areas have been identified as having a LOCAL role on separating settlements:

- 1. Between Solihull and Dorridge/Knowle
- 2. Between Birmingham and Hampton in Arden
- 3. Between Coventry and Balsall Common

GL Hearn Page 44 of 302

### STRATEGIC SEPARATION

- 1. Between Birmingham and Coventry this extensive tract of Green Belt between the two Cities largely comprises open countryside with the larger settlements of Balsall Common, Hampton in Arden and Meriden set within it. The key road corridors of the M6 and A45 and the London Birmingham railway line connect the cities, forming boundaries of parcels SE4, SE5, SE6, SE8 and SE19 which largely comprise the strategic gap. The M42 orbital road forms an ostensible eastern limit to the built edge of the Birmingham conurbation.
- 2. <u>Between Coventry and Kenilworth</u> whilst outside the Greater Birmingham HMA, the strategic gap is part of the Green Belt (parcel SE19) to the south west of Coventry which falls within the GBHMA. The strategic gap is narrow (less than 1.5km at its narrowest point) but nevertheless distinctive and forms a clear separation between the towns.
- 3. <u>Between Coventry and Bedworth</u> to the west and east of the A444 there remains the vestige of a gap between Coventry and Bedworth, albeit intruded by built development and the M6. Whilst the gap is nominal, it nevertheless creates a distinction between the settlements and contributes to maintaining their identity.

### **LOCAL SEPARATION**

- 1. <u>Between Solihull and Dorridge/Knowle</u> the remaining gaps between these settlements, whilst influenced by the presence of the M42, remains an important means of maintaining the separate character of the settlements and can thus be regarded as a locally significant purpose of the Green Belt.
- 2. <u>Between Birmingham and Hampton in Arden</u> ribbon development along Old Station Road has to some degree reduced the sense of separation between the Birmingham conurbation (extended to the M42/A45 junction through Birmingham Airport/the NEC) and Hampton in Arden, but the gap nevertheless remains locally significant and maintains the identity of the settlement which would be compromised by further infill.
- 3. <u>Between Coventry and Balsall Common</u> although the physical gap between Coventry and Balsall Common remains substantial, there is nevertheless evidence of incremental urbanisation (both historic and contemporary), making this part of the Green Belt vulnerable to further erosion of its broadly open character. The contribution to local separation acts together with containment of sprawl from Coventry at Tile Hill and encroachment from the east of Balsall Common.

## SOUTH EAST SECTOR – PURPOSE 3: SAFEGUARDING THE COUNTRYSIDE FROM ENCROACHMENT

The following areas have been identified as having a particular role in safeguarding the countryside from encroachment:

- 1. West, East and South of Dorridge
- 2. Around Catherine-de-Barnes
- 3. Around Hampton in Arden
- 4. Around Meriden
- 5. West and East of Balsall Common
- 6. North East of Coventry at Allesley/Hawksend/Brownshill Green
- 1. West, East and South of Dorridge there has been significant expansion of Dorridge, merging with Knowle. Whilst development to the west is reasonably well contained by various minor roads, the eastern and southern edges are less well defined and there is evidence of various degrees of piecemeal intrusion into the settled open countryside to the east. To the west, whilst the M42 prevents the physical merger of Dorridge with Solihull, the Green Belt between Dorridge and the M42 maintains local

GL Hearn Page 45 of 302

- separation of the two settlements and prevents westward encroachment from Dorridge into the open countryside of the remaining gap.
- 2. <u>Around Catherine-de-Barnes</u> whilst the village of Catherine-de-Barnes retains a separate identity within the Green Belt between the edge of Birmingham conurbation at Solihull and the M42, there is evidence of encroachment into open countryside across the southern part of the parcel (SE7), in particular. To the south west of the parcel, the urban edge of Solihull in this location is reasonably well enclosed by Damson Parkway.
- 3. <u>Around Hampton in Arden</u> whilst the settlement has a relatively small footprint, there is evidence of incremental encroachment particularly to the north where there is historic ribbon development extending along Old Station Road. New development to the south east and south west has created a fragmented settlement edge vulnerable to further incremental encroachment into open countryside.
- **4.** <u>Around Meriden</u> although Meriden is a relatively small settlement of generally compact form, there is evidence of, and vulnerability to, localised encroachment into the surrounding open countryside, extending (for example) from the ribbon development along the various approach roads.
- 5. West and East of Balsall Common there is evidence of recent significant peripheral development which is creating a complex settlement footprint, the open countryside context of which is potentially vulnerable to encroachment. To the north and south of the settlement, development appears to be well bounded.
- 6. North East of Coventry at Allesley/Hawksend/Brownshill Green centred on the Browns Lane employment area, a complex settlement pattern has evolved in the vicinity. The Green Belt to the east, north and west is potentially vulnerable to incremental encroachment in the absence of clear containing boundaries.

### **SOUTH EAST SECTOR - PURPOSE 4: PROVIDING SETTING**

There is one historic town in the vicinity of the HMA: Kenilworth.

1. Setting for the west of Kenilworth – the Green Belt forms the westerly context for Kenilworth Castle and Abbey Fields. Whilst built development has created enclosure to the north and south, the open countryside context has been retained through Green Belt designation.

GL Hearn Page 46 of 302

### **APPENDIX C:** Strategic Sustainability Appraisal Framework

GL Hearn Page 47 of 302

### GRADING:

+++	Significant Positive Outcome
++	Major Positive Outcome
+	Minor Positive Outcome
0	Neutral Outcome
-	Minor Negative Outcome
	Major Negative Outcome
	Significant Negative Outcome

? Uncertain Outcome

SEA Theme	Objective	Decision Making Criteria  To what extent are proposals likely to	Strategic Locational Indicators	Assumptions
Natural Resources and Waste	Use natural resources efficiently	Minimise use of greenfield land, minimise use of best and most versatile land, limit water consumption and the production of waste?	<ul> <li>Greenfield land-take</li> <li>Best and most versatile (BMV) agricultural land (Agricultural Land Classification Grades 1, 2 and 3a) land take.</li> <li>Use of innovative approaches to waste reduction and water management</li> </ul>	Larger developments are more likely to make use of waste and water management systems (e.g. rainwater harvesting) due to economies of scale and ability to plan strategically across a site.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and	<ul> <li>Opportunities to promote renewable energy generation</li> <li>Opportunities to use SuDS</li> <li>Flood risk (in particular land in</li> </ul>	Larger developments are more likely to provide opportunities for renewable energy schemes and for flood risk mitigation due to economies of scale and ability to plan strategically across a site.

GL Hearn Page 48 of 302

SEA Theme	Objective Decision Making Criteria  To what extent are proposals likely to		Strategic Locational Indicators	Assumptions
		SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	location classified as flood zone 3)	
	Adapt to the effects of climate change	Be exemplars for a multifunctional response to climate change?	Potential for Green     Infrastructure to help adapt to     the effects of climate change     (e.g. provision of areas for     temporary storage of surface     water flooding)	Larger developments are more likely to provide greater opportunities for Green Infrastructure to help adapt to the effects of climate change due to economies of scale and ability to plan strategically across a site.
Transport, connectivity and CO <sub>2</sub> Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	Access (potential access) to public transport networks     Proximity to existing higher order service centres     Opportunities to promote modal shift     Opportunities to reduce demand for unsustainable forms of travel     Use of energy efficiency measures through innovative housing design	<ul> <li>Developments adjacent to existing service provision more likely to provide opportunities for useful connections via walking and cycling.</li> <li>Smaller, edge of settlement developments are less likely to have good sustainable transport links to strategic centres unless adjacent to the transport network.</li> <li>Larger developments are more likely to incorporate new or extended public transport services.</li> <li>Very large developments could create opportunities for a degree of self-containment which in turn would favour cycling and walking provision.</li> </ul>

GL Hearn Page 49 of 302

SEA Theme	Objective	Decision Making Criteria To what extent are proposals likely to  Strategic Locational Indicators		Assumptions
				Smaller, detached developments are more likely to generate car-based travel. insert
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	Proximity to designated landscapes  Proximity to internationally and/or nationally and designated nature conservation sites  Proximity to internationally/nationally designated heritage assets	<ul> <li>Historic Parks and Gardens and cultural heritage features are likely to be more sensitive to development both directly and in their wider context.</li> <li>Development adjacent to high quality landscapes and internationally designated conservation sites is likely to lead to recreational pressure.</li> <li>Urban extensions can create a barrier to accessible natural greenspace for existing suburbs.</li> </ul>
Pollution	Limit potential for additional pollution of air, soil and water and actively seek opportunities for pollutant reduction	Result in no additional pollution load?  Contribute towards a reduction in pollutant loading?	Proximity to employment, community facilities, services and sustainable transport hubs that will minimise the need to travel and encourage the use of non-car modes	Larger developments are more likely to be able to provide comprehensive approaches to water management and innovation in air quality management due to economies of scale and ability to plan strategically across a site.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	Creation of major and diverse employment opportunities     Proximity to major existing or proposed employment areas	<ul> <li>Smaller developments on edge-of-settlement locations are less likely to contribute to economic growth through business creation.</li> <li>Access to jobs and training is more likely in development adjacent/accessible to existing urban areas.</li> <li>Larger developments could create opportunities</li> </ul>

GL Hearn Page 50 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent are proposals likely to	Strategic Locational Indicators	Assumptions
				for employment provision, skills development and training.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	Relationship with existing development reflecting opportunities to create a distinct sense of place	<ul> <li>Creative design and landscape enhancement which creates a sense of place is more likely in large-scale developments due to economies of scale and ability to plan strategically across a site.</li> <li>Opportunities to create a sense of place could be greater in stand-alone developments due to ability to plan strategically across a site.</li> </ul>
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	Provision of a range of tenures, types and mixes of high quality, affordable homes	Larger sites will have a more varied housing mix.

### Sources:

- Sustainability Appraisal of the Birmingham Plan
- Sustainability Appraisal of the Greater Birmingham and Solihull (GBS) LEP and Black Country Strategic Housing Study and Greater Birmingham and Solihull Local Enterprise Partnership Spatial Plan for Growth (SPG)
- Sustainability Appraisal of the Partnership for Urban South Hampshire (PUSH) Spatial Position Statement
- Coventry and Warwickshire HMA Assessment of Spatial Options for Addressing a Shortfall in Housing

GL Hearn Page 51 of 302

# Sustainability Appraisal Frameworks The Birmingham Plan

SA Theme	SA Objectives	Guide Questions for the SA Will the Birmingham Development Plan help to
Natural resources and waste	Resource Use: Use natural resources such as water and minerals efficiently.	<ul> <li>Incorporate energy efficiency measures into new land use and developments, redevelopment and refurbishment?</li> <li>Promote and support resource efficient technologies?</li> <li>Reward efficient resource use?</li> <li>Reduce water consumption?</li> </ul>
	7. Waste Reduction and Minimisation: Encourage and enable waste minimisation, reuse, recycling and recovery.	Divert resources away from the waste stream, including the use of recycled materials where possible?
	8. Efficient use of land: Encourage land use and development that optimises the use of previously developed land and buildings.	Encourage the efficient use of land and minimise the loss of greenfield land?     Value and protect the biodiversity/geodiversity (of previously developed land and buildings)?
2. CO <sub>2</sub> emissions	2. Sustainable design, construction and maintenance: Promote and ensure high standards of sustainable resource-efficient design, construction and maintenance of buildings, where possible exceeding the requirements of the Building Regulations.	Reduce dependence on fossil fuels?     Increase the number of buildings which meet recognised standards for sustainability?
	3. Renewable Energy: Encourage development of alternative and renewable resources.	Reduce dependence on fossil fuels?     Promote and support the development of new high value and low impact technologies, especially resource efficient technologies and environmental technology initiatives?     Increase the proportion of energy generated from renewable and low carbon sources, including micro generation, CHP, district heating and transportation?
	<b>4. Energy Efficiency</b> : Reduce overall energy use through energy efficiency.	Reduce energy consumption?
	5. Sustainable Transport: Increase use of public transport, cycling and walking as a proportion of total travel and ensure development is primarily focused in the major urban areas, making efficient use of existing physical transport infrastructure.	<ul> <li>Reduce road traffic congestion, pollution and accidents?</li> <li>Encourage walking and cycling?</li> <li>Reduce travel by private car?</li> <li>Promote accessibility for disabled people?</li> </ul>
	6. Reduce the need to travel: Ensure development reduces the need to travel.	Reduce traffic volumes?     Reduce average journey length?
	9. Reduce climate change: Minimise Birmingham's contribution to the causes of climate change by reducing emissions of greenhouse gases from transport, domestic, commercial and industrial sources.	Reduce emissions of greenhouse gases by reducing energy consumption?
3. Climate change adaptation	10. Manage Climate Change: Implement a managed response to the unavoidable impacts of climate change, ensuring that the design and planning process takes into account predicted changes in Birmingham's climate including flood risk.	Minimise the risk of flooding from rivers and watercourses to people and property?     Reduce the risk of damage to property from storm events?     Protect, enhance and extend green infrastructure resources?     Address climate change adaptation for biodiversity fragmentation?

GL Hearn Page 52 of 302

SA Theme	SA Objectives	Guide Questions for the SA
		Will the Birmingham Development Plan help to
4. Historic environment, landscape,	12. Built and Historic Environment: Value, protect, enhance and restore Birmingham's built and historic environment and landscape.	Protect and enhance features of built and historic environment and landscape?
biodiversity and geodiversity	13. Natural Landscape: Value, protect, enhance and restore Birmingham's natural	Safeguard and enhance the character of the local landscape and local distinctiveness?
	landscape.	Improve the landscape quality and character of the countryside?
	14. Biodiversity: Value, protect, maintain, restore and re-create local biodiversity and	Use approaches that improve the resilience of natural systems such as linking fragmented habitats where possible?
	geodiversity.	Conserve and enhance natural/semi-natural habitats and conserve and enhance species diversity?
		Lead to habitat creation delivering BAP priorities?
5. Pollution	15. Air Quality: Minimise air pollution levels and create good quality air.	Improve air quality?
	Create good quality all.	Reduce CO <sub>2</sub> emissions?
	16. Water Quality: Minimise water pollution levels and create good quality water.	Improve water quality?
	17. Soil Quality: Minimise soil pollution levels	Maintain and enhance soil quality?
	and create good quality soil.	Minimise the loss of soils to development?
	18. Noise: Minimise noise pollution levels.	Reduce noise pollution?
		Propose mitigation measures to minimise noise pollution?
6. Economic growth	20. Economy and Equality: Achieve a strong, stable and sustainable economy and prosperity	Encourage and support a culture of enterprise and innovation, including social enterprise?
	for the benefit of all of Birmingham's inhabitants.	Improve business development and enhance competitiveness?
		Promote growth in key sectors?
		Reduce unemployment, especially amongst disadvantaged groups?
	21. Learning and Skills: Promote investment in future prosperity, including ongoing investment and engagement in learning and skills development.	Ensure that Birmingham's workforce is equipped with the skills to access high quality employment opportunities suited to the changing needs of Birmingham's economy whilst recognising the value and contribution of unpaid work?
7. Communities, healthy lifestyles and equality	11. Sense of Place: Encourage land use and development that creates and sustains well-designed, high quality built environments that incorporate green space, encourage biodiversity, and promote local distinctiveness and sense of place.	Improve the satisfaction of a diverse range of people with the neighbourhoods where they live?
	19. Social and Environmental Responsibility: Encourage corporate social and environmental responsibility, with local organisations and	Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods?
	agencies leading by example.	Encourage good employee relations and management practices?
		Encourage ethical trading?
	22. Community Involvement: Enable communities to influence the decisions that affect their neighbourhoods and quality of life.	Encourage local stewardship of local environments, for example enabling communities to improve their neighbourhoods?
		Encourage engagement in community activities for example

GL Hearn Page 53 of 302

SA Theme	SA Objectives	Guide Questions for the SA  Will the Birmingham Development Plan help to
		through the establishment of social and cultural facilities that address the needs of equalities groups?  Increase the ability of people to influence decisions?
	23. Equality: Ensure easy and equitable access to services, facilities and opportunities, including jobs and learning.	<ul> <li>Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?</li> <li>Ensure that people are not disadvantaged with regard to ethnicity, gender, age, disability, faith, sexuality, background or location?</li> </ul>
	24. Poverty: Address poverty and disadvantage, taking into account the particular difficulties of those facing multiple disadvantage.	<ul> <li>Promote environmental justice, recognising that deprived areas and disadvantaged communities are more likely to be affected by environmental damage and degradation?</li> <li>Reduce household poverty, especially the proportion of children living in poor households?</li> </ul>
	25. Health: Improve health and reduce health inequalities by encouraging and enabling healthy active lifestyles and protecting health.	Provide equitable access to health services?     Provide sufficient areas of accessible natural greenspace?
	26. Crime: Reduce crime, fear of crime and antisocial behaviour.	Reduce crime? Reduce the fear of crime amongst all social and cultural groups?
	28. Culture/Sport/Recreation: Improve opportunities to participate in diverse cultural, sporting and recreational activities.	Encourage participation in sport and cultural activities for all the diverse communities in Birmingham?
8. Housing	27. Housing: Provide decent and affordable housing for all, of the right quantity, type, tenure and affordability to meet local needs.	<ul> <li>Reduce homelessness?</li> <li>Increase the range and affordability of housing for all social and cultural groups?</li> <li>Reduce the number of unfit homes?</li> </ul>

### **Greater Birmingham and Solihull LEP**

SEA	SEA Objective		n making criteria: Will the option/proposal	Assumptions
1	C om m unity: To create safe places with a strong sense of community, equality and diversity. This includes provision of suitable housing, a reduction in crim e and the fear of crim e and creating com m unities with an identity and sense of place.	Q 1a Q 1b Q 1c	Will it reduce crim e and the fear of crim e?  Will it improve the satisfaction of people with their neighbourhoods as a place to live by creating attractive neighbourhoods with a strong sense of place?  Will it ensure an appropriate mix of quality housing to meet the needs of residents of all ethnicities, socioeconomic backgrounds and ages, including affordable housing?  Is it possible to meet the whole of the housing shortfall in this way?	High market areas will secure higher levels of affordable housing  Larger sites are likely to have a m ore varied housing mix
		Q 1e	Will it improve provision of, quality of and access to com m unity facilities?	
2	Biodiversity and geodiversity: To maintain and enhance	Q 2a	Will it lead to habitat creation or creation of designated areas for wildlife?	Regeneration opportunities can deliver biodiversity gains

GL Hearn Page 54 of 302

		Decision	n making criteria: Will the option/proposal	
SEA	Objective			Assumptions
	geodiversity, biodiversity, flora and fauna.	Q 2b	Will it maintain and enhance sites designated for their biodiversity or geodiversity interest?	More deprived areas are likely to have lower baseline environmental quality
		Q 2c	Will it reduce habitat fragmentation and enhance habitat connectivity at the landscape scale?	High density developments tend to be in profitable locations and low density developments are in less profitable (to the
		Q 2d	Will it protect and enhance features or areas with biodiversity potential including HAP habitats and habitats for B A P species and European protected species?	developer, but high market value) locations with more room for GI etc.
3	Historic environment: To protect and enhance the historic and cultural environment, including buildings, their settings, archaeology and other cultural features.	Q 3a	Will it recognise, protect and enhance sites, features and areas of historical, archaeological and cultural interest and, w here necessary, encourage their conservation and renew al?	Impacts of development are likely to be lower in areas that have already been subject to modern development.  Town centres are often the historic cores of settlements and thus are likely to have a higher concentration of historic assets.
		Q 3b	Will it preserve or enhance the setting of cultural heritage assets?	Industrial heritage features are likely to be less sensitive to development
		Q 3c	Will it help to create an accessible, multifunctional historic environment (e.gcultural, educational and visual)?	Historic Parks and Gardens and cultural heritage features linked to a countryside setting are likely to be most sensitive to development
4	Landscape: To protect and enhance the built and natural environments in term s of landscape character and visual impact.	Q4a	Will it conserve and enhance visual amenity, view s and improve the aesthetics of the local environment?	Development in or adjacent to high quality landscapes m ay lead to degradation of these landscapes via recreational pressure and urban edge effects.  Sustainable Urban Extensions (SUEs) may introduce a barrier to countryside landscapes by moving residents from suburbs on the edge of the countryside to a m ore urban setting
		Q 4 b	W ill it conserve and enhance landscape, townscape and cityscape character in line with National and Local Character Areas?	Creating high quality landscapes that respect local topography and ridgelines is more important than screening development  Urban areas are likely to be less sensitive to development than rural areas, although inner-city areas are not necessarily of poor townscape value
		Q4c	Will it maintain and enhance areas designated for their landscape value?	Creative design and landscape enhancements are more likely to be viable for large-scale development than
		Q4d	Will it contribute to green infrastructure by delivering multifunctional landscapes, including maintaining and improving access to open countryside and areas of high landscape value?	small-scale

GL Hearn Page 55 of 302

		Decision	n making criteria: Will the option/proposal	
SEA	Objective			Assumptions
5	Education and skills: To improve education and skills, including the number of opportunities, accessibility to education facilities and quality of these.	Q 5a	Will it ensure education and training opportunities are accessible for all sectors of the population, including accessibility by public transport links?  Will it encourage a diversity of education	Further education colleges have a strong link with apprenticeships  Some areas are more able to cope with employment and education gains  A development of more than 500 dwellings would require a new school - Dept. for Education state that private sector
		Q SD	and learning opportunities?	development doesn't need to contribute, as the government will provide for this. i.e. up to 500 dwelling s m ay put pressure on existing facilities but over 500 will include new provision  Development in urban areas is more likely to be in proximity of existing educational facilities
		Q 5c	Will it provide additional learning facilities in the area, such as a nursery, school or adult learning centre, or improve current provision of these?	
6	Health and wellbeing: To maximise health and wellbeing and reduce inequalities in health.	Q 6a	Will it improve access to high quality public services including health, sport and leisure facilities and reduce demand for health and social services?	Larger developments are likely to include sufficient provision of health and com m unity facilities and public open space  Residents of rural developments are likely to be more reliant on car, thus not walking and cycling as much from place to place  Rural dwellings are often occupied by retired people, thus putting more pressure on health services in these areas  Rural areas are likely to have poorer access to services (local provision and public transport), which is likely to be a particular issue for elderly, vulnerable and those on low incomes
		Q 6b	Will it improve and enhance access to and quality and area of public green and open spaces, including connectivity of these?	Quality of public open space may be more important that quantity as this may determine levels of use  Health services and open spaces in urban areas are likely to have lower capacity for

GL Hearn Page 56 of 302

		Decision	n making criteria: Will the option/proposal	
SEA	Objective			Assumptions
		Q 6c	Will development minimise risks to hum an health via poor environmental quality?	new residents and will have less space available to expand these  Affluent areas tend to have better health  Travelling by public transport tends to result in more walking either end of the journey  Lower housing densities lead to better health and wellbeing  More deprived communities are more at risk from negative impacts on climate
7	Climate change adaptation: To adapt effectively to the effects of climate change (both now and in the future, particularly concerning flooding drought, overheating and resilience to extreme weather events).	Q 7a	Will it help prevent risk of fluvial, g round and surface water flooding and limit potential increases in flood risk likely to take place as a result of climate change?	Change  Provision of G I w ill lead to reduced flood risk  It will be more difficult to incorporate GI and SUDs etc. in denser development
		Q 7b	Will it ensure that new development and infrastructure is located and designed to withstand the effects of climate change over its design life?	High density developments tend to be in profitable locations and low density developments are in less profitable (to the developer, but high market value) locations with more room for GI etc.  Small sites unlikely to achieve runoff rates below greenfield rates
		Q 7c	Will it enhance existing green infrastructure and promote the expansion of green infrastructure to help facilitate climate change adaptation?	
		Q 7d	Will it reduce the urban heat island effect?	
8	Climate change mitigation: To minimise the area's contribution to climate change by	Q 8a	Will it reduce the carbon footprint of the area (per capita)?	Larger developments are more likely to include provision of sustainable transport networks and renewable energy etc.
	reducing the carbon footprint of the area. This includes reducing energy use, increasing energy efficiency and moving towards low-	Q 8b	Will it lead to development in proximity to good sustainable transport links, or provide new sustainable transport links?	More deprived areas are likely to have lower baseline environmental quality (e.g higher flood risk, less G I etc.)
	carbon energy generation.	Q 8c	Will it reduce energy consumption by leading to reduced use and increased energy efficiency?	
		Q 8d	Will it encourage a move towards more sustainable sources of energy (e.g. renewable and low carbon)?	

GL Hearn Page 57 of 302

			n making criteria: Will the option/proposal		
SEA	Objective			Assumptions	
9	Resource use and waste management: To maximise sustainable use of resources, minimise waste and maximise material reuse and recycling	Q 9a	Will it reduce the amount of waste disposed through landfill e.g. by providing facilities for the separation and recycling of waste?		
		Q 9b	Will it lead to reduced consumption of materials and resources?		
		Q 9c	Will it minimise and where possible eliminate generation of waste?		
10	Natural resources: To conserve natural resources, encourage their efficient management and sustainable use	Q 10 a	Will it lead to the more efficient use of land, including utilisation of derelict, degraded and previously developed land?	Urban developments and high density developments are more likely to conserve land resources, due to efficiency of land use and building on previously developed land  Intensification and urban development may require expansion of water	
		Q 10 b	Will it avoid development on best and most versatile agricultural land?	infrastructure capacity, whereas rural development is likely to require geographic extension of the network	
		Q 10 c	Will it avoid sterilisation of mineral deposits?		
		Q 10 d	Will it improve water infrastructure e.g. supply/sewerage and ensure this will be in place with sufficient capacity before new development?		
11	Environmental quality: To conserve and enhance quality of land and soil,	Q 11a	Will it lead to improved water quality of both surface water groundwater features?	Provision of G I is likely to improve air quality  Air quality impacts of development in areas with poor baseline conditions (e.g. A Q MA	
	surface waters and groundwater and indoor and outdoor air quality.	Q 11b	Will it lead to improved air quality, including reduction of congestion and associated pollutants, particularly within an AQMA?	s) m ay be neutral if the development will not exacerbate negative baseline conditions	
		Q 11c	Will it help limit noise and light pollution?		
		Q 11d	Will it avoid development on contaminated land or remediate contaminated land?		
12	Economy and employment: T o develop the economy to meet present and future needs,	Q 12a	Will employment opportunities be accessible via a rang e of transport m odes?	Access to jobs is likely to be better in developments with access to transport networks.  Large developments (e.g. new	

GL Hearn Page 58 of 302

SEA	SEA Objective		n making criteria: Will the option/proposal	Assumptions
	including provision of rewarding and well located employment.	Q 12b	Will it help ensure an adequate supply of employment land and job creation?	settlements and SUEs) are more likely to include employment provision  Less than 1 1/2 hours each way is considered an acceptable travel to work time
		Q 12c	Will it improve the image of the area as a business destination and encourage investment, particularly in sustainable technologies?	Home working would perform neutrally across the 6 S HNS scenarios
		Q 12d	Will it increase employment opportunities, particularly in G B S L E P growth areas: Advanced manufacturing Life sciences Digital and creative Business, professional and financial services L ow carbon and environmental technologies and services?	
13	Connectivity and accessibility: Maximise effectiveness and efficiency of the transport network and encourage sustainable m odes of travel.	Q 13a	Will it reduce the need to travel e.g through proximity of homes and jobs and local amenities or provision of these?	45 minutes is an acceptable time to travel to a strategic centre by public transport  Large developments are more likely to incorporate new or extended public transport services
		Q 13b	Will it encourage travel by sustainable m odes of transport?	Intensification of development will put greater pressure on existing public transport services• Smaller sites are less likely to have good transport links to strategic centres, unless next to existing links to the transport network
		Q 13c	Will it seek to reduce or minimise delays caused by congestion?	

GL Hearn Page 59 of 302

### **PUSH – Planning for Urban South Hampshire**

	Sustainability Appraisal Objective	Example			Possible Indicators		
1	Ensure that the sub-region reduces its contribution to climate change through reductions in greenhouse gases	•	WIII the PUSH region reduce net carbon dioxide emissions?	:	Share of renewal energy generation Proportion of homes meeting national technical standards for carbon dioxide emissions Energy Performance Certificate scores		
2	Future development takes into account the effects of climate change	•	Are flood risks taken into account in the position statement?	:	Development within 1:100 year flood risk area Flood defences and compensation arrangements		
3	Protect, conserve and enhance areas designated for their nature conservation interest	•	Does the position statement put natural capital at risk?	:	Vuinerability of designated sites Proximity of sites to position statement areas		
4	Support and protect wildlife and important biodiversity and geological resources through the enhancement of ecological and green networks	•	Does the position statement allow for enhancement?	:	Increased protection of assets Provision of new green infrastructure		
5	Minimise the potential for adverse effects to the historic environment of the sub-region: scheduled monuments, listed buildings, known archaeology, conservation areas and historic parks and gardens		Does position statement put such assets at risk, either in terms of physical effects, or setting?  Are there opportunities for enhancement?	:	Sympathetic incorporation of assets into position statement delivery  Type of strategies for enhancement are incorporated into position statement or development		
6	Protect, conserve and enhance the character and quality of the landscape, townscape and seascape of the sub-region		Does the position statement allow for safeguarding of landscape assets and setting? Does the position statement provide opportunities for enhancement of such resources?	:	Undertake detailed character studies on new developments Up-to-date appraisals of character Type of enhancement strategies incorporated into position statement or development		
7	Limit potential for additional pollution of air, soil and water		Will position statement result in degradation in the quality of water, soil conditions, and air quality? Will the position statement result in improvements?	:	Reduction in pollution incidents Water quality objectives Remediation of at risk sites (number/area) Changes in number and nature of Air Quality Management Areas		
8	Ensure the prudent and efficient use of natural resources		Will the position statement minimise sterilisation of mineral resources? Will the position statement minimise water use?	:	Number/area of available mineral consents Water usage statistics Area of BMV land protected		
		ŀ	Will the position statement minimise loss of Best and Most Versatile Land?	L			
9	Sustainability Appraisal Objective  Optimise the potential to reduce reliance on private car use by providing opportunities to use more sustainable modes of transport, including rail, bus, mass water transport, walking and cycling	•	will the position statement reduce the need to traver? Are non-motorised modes of transport promoted? Will public transport usage increase?	:	Ridership statistics		
10	Facilitating the most sustainable management of waste through the waste management hierarchy		Will the position statement assist in waste minimisation? Is increased recovery facilitated by the position statement?	١.	Waste going to landfill Amount/proportion of recovered recyclables		
11	Optimise the potential for increased energy security and diversity of supply including the promotion of renewable sources of generation and improvements in the transmission of electricity within the sub-region	:	Will the position statement result in increased renewable energy generation? Will the position statement result in positive changes to the pattern of electrical transmission?	ŀ	Renewable energy mix New/upgraded infrastructure (location, volumes, etc)		
12	Minimise or avoid development within defined flood zones and the potential for development to increase flooding in these and other areas		Will the position statement result in increased flood risk? Will the position statement facilitate increased flood protection measures in the region?	:	Amount of/investment in flood defence engineering		
13	Improve the health and wellbeing of residents and employees of South Hampshire and the Isle of Wight		Will the position statement result in increased provision of open space, and other recreational facilities? Will the position statement complement the PUSH Green Infrastructure Strategy?		Numbers and type of facilities Usage statistics		
14	Reduce poverty and improve social inclusion for residents of South Hampshire and the Isle of Wight		Does the position statement result in increases in economic and social opportunities?				
15	Develop and maintain dynamic and diverse economies that are strong, competitive and knowledge based		Will the position statement facilitate increases in employment? Will the position statement result in changes to types of employment?	١.	Regional GDP		
16	Promote and support high and stable levels of employment that develop and maintain a highly skilled workforce	t :	Will the position statement facilitate increases in employment?  Are employment opportunities matched				

GL Hearn Page 60 or 302

Are employment opportunities matched by the available skills?

Number of higher education institutions/enrolment data

### APPENDIX D: Area of Search Appraisal

GL Hearn Page 61 of 302

Table 1: North of Penkridge (Urban Extension

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  An urban extension North of Penkridge is likely to involve the use of extensive areas of green field land (even when developed around the existing settlement where some brownfield land may be utilised) due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from this area of search.  The area largely comprises Grade 2 and Grade 3 agricultural land with some limited areas of Grade 4 land. Development in this location would therefore involve the loss of this irreplaceable resource.  An urban extension North of Penkridge is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension North of Penkridge would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension North of Penkridge is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Maximising the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties
Climate Change	Contribute to climate change	Make a substantial contribution through measures such as		Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as

GL Hearn Page 62 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	mitigation	renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for an Urban Extension North of Penkridge.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  However, there are areas to the North of Penkridge which are in flood zone 3 mainly from the River Penk and smaller Brooks and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3.  An Urban Extension North of Penkridge has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  Development would avoid areas at highest risk of flooding.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	++/-	Likely Significant Outcomes  An Urban Extension North of Penkridge is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater use of the main line rail connection at Penkridge, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.

GL Hearn Page 63 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The exact quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/	Likely Significant Outcomes  Urban Extensions North of Penkridge would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.  An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.  Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.  Penkridge does benefit from a main line railway station so there would be opportunities to utilise rail transport as a sustainable means of travel. The M6 motorway is also adjacent so there is good access to the strategic road network. However, major employment areas are located away from this area and it is likely that there would be out-commuting via the private car to access these areas.  Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for

GL Hearn Page 64 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>public transport provision.</li> <li>Mitigation</li> <li>Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.</li> <li>Assumptions</li> <li>Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.</li> <li>Uncertainties</li> <li>The delivery of infrastructure to support the quantum of development envisaged.</li> </ul>
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  An Urban Extension North of Penkridge is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  The areas to the North of Penkridge do not include land which is the subject of any biodiversity designations and does not form part of the Green Belt. However, in the areas between Wolverhampton and Penkridge there are a number of European and locally designated sites. There is also the Mottey Meadows SSSI, SAC and NNR 7.5km to the west of Penkridge and Cannock Chase SPA and SSSI around 6km to the north east. There could be disturbance effects from an increase in recreational activity associated with people living in new homes. This would require further consideration for the development of any urban extensions here.  The general area is characterised by grassland, woodland and arable land with some orchards and is located in the Cannock Chase and Cank Wood NCA, which is situated on higher land consisting of sandstone and South Staffordshire Coalfield. The NCA principally coincides with the historical hunting forest of Cannock Chase.  This area is not in the Green Belt, although there is Green Belt around Penkridge, which may need

GL Hearn Page 65 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the	AoS Score	Commentary
		Development Model likely to:		
				to be considered as part of the development any urban extension in this location.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the scale of development envisaged provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is a concentration of listed buildings in Penkridge and there are areas to the North of Penkridge which include some listed buildings and a Scheduled Monument. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.
				At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.
				Mitigation
				Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				<ul> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>
				Uncertainties
				The exact location of development in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for	Result in no additional		Likely Significant Outcomes
	additional pollution of air, soil and water	pollution load? Contribute towards a reduction in pollutant loading?		The provision of development at the scale envisaged for an Urban Extension North of Penkridge is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connection at Penkridge and provision of other forms of sustainable transport. The development will

GL Hearn Page 66 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/	also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++/-	Likely Significant Outcomes  The development of an Urban Extension North of Penkridge would drive significant economic investment in the locations where this is developed and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  An urban extension North of Penkridge would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  The major urban conurbation of Wolverhampton-Walsall-Birmingham is located approximately 9 km to the South of Penkridge which provides major employment opportunities that could easily be accessed by any new residents living in an urban extension in this location. However, the location would not support existing employment areas in the local vicinity and the opportunities to develop a complementary role is limited.  Overall, a mix of major positive and minor negative outcomes have been assessed against this objective.

GL Hearn Page 67 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	Likely Significant Outcomes  An Urban Extension North of Penkridge is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.  An Urban Extension North of Penkridge would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place, and would be likely to include provision of sports facilities.  There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.  Overall, an Urban Extension North of Penkridge is considered to have major positive outcomes for this objective.  Mitigation  • The integration of infrastructure delivery tied to specific development phasing.

GL Hearn Page 68 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Specific design will seek out opportunities to design out crime.  Uncertainties      Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?		Likely Significant Outcomes  The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension North of Penkridge would also support the delivery of facilities, services and employment to support the needs of future residents.
			++	There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.

GL Hearn Page 69 of 302

Table 2: Around Penkridge (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  An urban extension around Penkridge is likely to involve the use of extensive areas of green field land (even when developed around the existing settlement where some brownfield land may be utilised) due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from this area of search.  The area largely comprises Grade 2 and Grade 3 agricultural land with some limited areas of Grade 4 land. Development in this location would therefore involve the loss of this irreplaceable resource.  An urban extension around Penkridge is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension around Penkridge would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension around Penkridge is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Maximising the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  Beyond this broad area of search around Penkridge there is uncertainty relating to the delivery of the development in relation to exact specific locations.

GL Hearn Page 70 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for Urban Extensions around Penkridge.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  However, there are areas around Penkridge which are in flood zone 3 from the River Penk and smaller Brooks and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3.  An Urban Extension around Penkridge has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  Development would avoid areas at highest risk of flooding.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  Urban Extensions around Penkridge is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.

GL Hearn Page 71 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, for example there could be increased use of rail from the main line station at Penkridge, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.
				Overall, mixed major positive and minor negative outcomes have been assessed against this objective.
				Mitigation
				<ul> <li>Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.</li> </ul>
				Assumptions
				Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				Uncertainties
				The exact quantum of development.
Transport,	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?		Likely Significant Outcomes
connectivity and CO2 Emissions				Urban Extensions around Penkridge would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.
			++/	An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.
				Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range

GL Hearn Page 72 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				would also provide critical mass to enable sustainable public transport solutions.  Penkridge does benefit from a main line railway station so there would be opportunities to utilise rail transport as a sustainable means of travel. The M6 motorway is also adjacent so there is good access to the strategic road network. However, there is likely to outcommuting for access to major employment areas. The location does not support a critical mass of employment and major areas of employment are located some distance away on the M6, M54 and M42 corridors.  Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for public transport provision.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.  Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  An Urban Extension around Penkridge is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  The areas to the South of Penkridge includes three SSSI and there is green belt immediately to the south of Penkridge which could be a major constraint to any development of urban extensions in this location, subject to local Green Belt reviews and

GL Hearn Page 73 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				demonstrating any exceptional circumstances for any changes to green belt boundaries.  The Green Belt study notes that development in this area would have a limited effect on the strategic role of the Green Belt because of the containment of the conurbation to the south by the M54 and the absence of a strategic separate function. For a large scale development, the role of the Green Belt in this location could change to acquire a strategic separation role between a new development and Stafford to the north, Cannock to the east and Wolverhampton to the south.
				The general area is characterised by grassland, woodland and arable land with some orchards and is located in the Cannock Chase and Cank Wood NCA, which is situated on higher land consisting of sandstone and South Staffordshire Coalfield. The NCA principally coincides with the historical hunting forest of Cannock Chase.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the Urban Extension model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related the location of development and the historic assets that may be affected. The areas around Penkridge do include some listed buildings (with concentrations in some of the smaller settlements) and Scheduled Monuments. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.
				At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.
				Mitigation
				Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				That development would comply with requirements for HRA and appropriate assessment.

GL Hearn Page 74 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties     The exact location of development in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension around Penkridge is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connection at Penkridge and provision of other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills	Provide a significant source of employment which contributes to a high degree of self-		Likely Significant Outcomes  The development of an Urban Extension around Penkridge would drive significant economic investment in the locations where this is developed and at the higher range

GL Hearn Page 75 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	development	containment?	++/-	across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  An urban extension around Penkridge would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  The northern edge of the major urban conurbation of Wolverhampton-Walsall-Birmingham is located approximately 9km to the South of Penkridge which provides major employment opportunities that could easily be accessed by any new residents living in an urban extension in this location. However, the location would not support existing employment areas in the local vicinity and the opportunities to develop a complementary role is limited.  Overall, a mix of major positive and minor negative outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	Likely Significant Outcomes  An Urban Extension North of Penkridge is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and

GL Hearn Page 76 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).
				The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.
				An Urban Extension North of Penkridge would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. The inclusion of sporting facilities would also be supported by the scale of development.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, an Urban Extension around Penkridge is considered to have major positive outcomes for this objective.
				Mitigation
				The integration of infrastructure delivery tied to specific development phasing.
				Assumptions
				Specific design will seek out opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?		Likely Significant Outcomes  The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension Around Penkridge would also support the delivery of facilities, services and employment to support the needs of future residents.

GL Hearn Page 77 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++	There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, major positive outcomes have been assessed against this objective.  Mitigation
				None.
				• None.
				Uncertainties
				None.

GL Hearn Page 78 of 302

Table 3: South of Stafford (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  An urban extension South of Stafford is likely to involve the use of extensive areas of green field land (even when developed around the existing settlement where some brownfield land may be utilised) due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from this area of search.  The area largely comprises Grade 2 and Grade 3 agricultural land with some limited areas of Grade 4 land. Development in this location would therefore involve the loss of this irreplaceable resource.  An urban extension South of Stafford is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension South of Stafford would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension South of Stafford is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Maximising the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  Beyond this broad area of search South of Stafford there is uncertainty relating to the delivery of the development in relation to exact specific locations.

GL Hearn Page 79 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for an Urban Extension South of Stafford.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  However, there are areas to the South of Stafford which are in flood zone 3 from the River Penk, smaller Brooks and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3.  An Urban Extension South of Stafford has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  Development would avoid areas at highest risk of flooding.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  An Urban Extension South of Stafford is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.

GL Hearn Page 80 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater use of the existing main line rail connection at Stafford, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.
				Mitigation
				<ul> <li>Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.</li> </ul>
				Assumptions
				Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				Uncertainties
				The exact quantum of development.
Transport,	Promote energy	Create a significant and		Likely Significant Outcomes
CO2 Emissions	modes of transport and energy efficiency reduction in CO2 emissions?		Urban Extensions South of Stafford would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.	
		Reduce the need for use of unsustainable forms of travel?	++/	An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.
				Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range

GL Hearn Page 81 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				would also provide critical mass to enable sustainable public transport solutions.  Stafford does benefit from a main line railway station so there would be opportunities to utilise rail transport as a sustainable means of travel. The M6 motorway passes through this area so there is good access to the strategic road network. There are some employment opportunities within Stafford but it is like tha travel by private car would be underetaken to access other major employment areas around the M54, M6 and M42.  Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for public transport provision.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  An Urban Extension South of Stafford is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  There is a SSSI to the South East of Stafford which would need to be considered as part of any proposals for urban extensions. The areas to the South of Stafford do not form part of the Green Belt.  The area falls at the intersection between the Cannock Chase and Cank Wood NCA and

GL Hearn Page 82 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Shropshire, Cheshire and Staffordshire Plain NCA. The Cannock Chase and Cank Wood NCA area extends north of the Birmingham and Black Country Conurbation. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The Shropshire, Cheshire and Staffordshire Plain NCA is an expanse of flat or gently undulating, lush, pastoral farmland. The Cannock Chase AONB is around 2km south east of Stafford.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the Urban Extension model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related the location of development and the historic assets that may be affected. The areas to the South of Stafford does include some listed buildings and Scheduled Monuments. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.
				At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.
				Mitigation
				Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				That development would comply with requirements for HRA and appropriate
				<ul> <li>assessment.</li> <li>That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>
				Uncertainties
				The exact location of development in relation to designated nature conservation sites and historic assets.

GL Hearn Page 83 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension South of Stafford is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connection at Stafford and provision of other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  The development of an Urban Extension South of Stafford would drive significant economic investment in the localities where this is developed and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  An urban extension South of Stafford would also support some employment development

GL Hearn Page 84 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the	AoS Score	Commentary
		Development Model likely to:		
			++/-	as part of the extension, thereby supporting some lasting job opportunities locally.  However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.
				There are some employment opportunities within Stafford but it is like that travel by private car would be undertaken to access other major employment areas around the M54, M6 and M42. There is also limited opportunity to develop a critical mass of employment in the location.
				Overall, major positive outcomes have been assessed against this objective.
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				None.
Communities,	Encourage the	Provide extensive and		Likely Significant Outcomes
Healthy Litestyles and Equality	Healthy Lifestyles and Equality  creation of high quality and diverse environments that promote a sense of place  varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?		An Urban Extension South of Stafford is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.	
			++	The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).
				The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.
				An Urban Extension South of Stafford would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of

GL Hearn Page 85 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. The inclusion of sporting facilities would be supported by the scale of development.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, an Urban Extension South of Stafford is considered to have major positive outcomes for this objective.
				Mitigation
				The integration of infrastructure delivery tied to specific development phasing.
				Assumptions
				Specific design will seek out opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent	Provide a range of		Likely Significant Outcomes
	and affordable housing of the right quantity, type, tenure and affordability to meet local needs	opportunities for affordable housing across a range of tenures?		The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension South of Stafford would also support the delivery of facilities, services and employment to support the needs of future residents.
			++	There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.
				Overall, major positive outcomes have been assessed against this objective.  Mitigation

GL Hearn Page 86 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>None.</li> <li>Assumptions</li> <li>None.</li> <li>Uncertainties</li> <li>None.</li> </ul>

GL Hearn Page 87 of 302

Table 4: Around Dunston (New Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The New Town/Settlement is likely to involve the use of extensive areas of green field land (even when developed around the existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required This broad location largely comprises Agricultural Land Classification (ALC) Grade 3 and Grade 1 land, indicating that the area benefits from some of the best and most valuable soils. Development on this higher value land would lead to its permanent loss.  The New Town/Settlement is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  A New Town/Settlement would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  A new settlement around Dunston is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land when development around existing settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties  There are uncertainties relating to the delivery of the development model in relation to specific localities.

GL Hearn Page 88 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the New Town/Settlement.  The potential for of SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The broad area has limited areas at the highest risk of flooding. These areas are concentrated around Pothooks Brook. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is the potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The New Town/Settlement around Dunston has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That specific development schemes would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The New Town/Settlement is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing

GL Hearn Page 89 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.
			+++/	The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. There would also be opportunities to increase use of mainline rail connections in Stafford and Penkridge which are only a short journey (approximately 14 and 4 minutes respectively) away. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.
				Overall, mixed significant positive and major negative outcomes have been assessed against this objective.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.
				Assumptions
				Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				Uncertainties
				The extent to which sustainable transport minimises car use.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use		Likely Significant Outcomes  The New Town/Settlement could provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. It would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private

GL Hearn Page 90 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
		of unsustainable forms of travel?	+++/	Car.  The broad location is situated in the vicinity of a main rail line, which could support growth, but there are no existing rail stations on the line in this location but there are stations nearby in Penkridge and Stafford. There is a junction of the M6 in very close proximity to Dunston and so there is good access to the strategic road network.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and promote broader interconnectivity using the rail network through the existing stations in Penkridge and Stafford. However, it is recognised that CO2 emissions from transport would increase in line with the quantum of growth.  Overall, mixed significant positive and major negative outcomes have been assessed from the development of a new Town/Settlement around Dunston, although there is some uncertainty related to the delivery of the necessary transport infrastructure to support the scale of development envisaged.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties
				<ul> <li>The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.</li> <li>The extent to which sustainable transport helps reduce the use of the private car.</li> </ul>
Historic Environment, Landscape, Biodiversity and	Protect, enhance and restore the quality of landscape,	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Likely Significant Outcomes  The New Town/Settlement is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town

GL Hearn Page 91 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
Geodiversity	townscape, biodiversity and geodiversity			principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  The areas around Dunston do not contain any biodiversity designations and it is not in the
				Green Belt.  The area falls in the Shropshire, Cheshire and Staffordshire Plain NCA. This is characterised by an expanse of flat or gently undulating, lush, pastoral farmland. Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the New Town/Settlement model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is a scattering of listed buildings and Scheduled Monuments in the area surrounding Dunston which would need to be considered as part of any plans for a New Settlement/Town. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.
				Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.
				Mitigation
				Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				<ul> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development of the New Town/Settlement would accord with the NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>

GL Hearn Page 92 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
				The location of New Towns/Settlements in relation to designated nature conservation sites an historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale of a New Town/Settlement is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  The development of a New Town/Settlement around Dunston would drive significant economic investment in this area and across the HMA.  The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.

GL Hearn Page 93 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
			+++/-	The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  The broad location is situated in the vicinity of a main rail line, which could support growth, but there are no existing rail stations on the line in this location but there are stations nearby in Penkridge and Stafford. There are some areas of employment land within the centre and north of Stafford although the area is some distance from major areas of employment around the M6 and M42 corridors and the i54 development. There is a junction of the M6 in very close proximity to Dunston and so there is good access to the strategic road network but there are limited opportunities to contribute to a critical mass of employment in this location.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  The New Town/Settlement is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The scale of development envisaged would support opportunities for the delivery of employment land supporting access to employment locally.  The New Town/Settlement would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development

GL Hearn Page 94 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision and opportunities for sporting and recreational spaces. Green infrastructure can also help shape a sense of place.  However, there may be difficulties in ensuring delivery of infrastructure in line with housing development rates, at this quantum of development, which could mean that infrastructure delivery is not aligned with housing development phasing or not delivered at all. Therefore, there is some uncertainty. However, mitigation through the application of planning obligations may address some of these concerns.  Overall, a New Town/Settlement around Dunston is considered to have significant positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the New Town/Settlement, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++	Likely Significant Outcomes  The New Town/Settlement development would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The New Town/Settlement would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. A co-ordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.

GL Hearn Page 95 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				The delivery of the full quantum of housing.

GL Hearn Page 96 of 302

 Table 5:
 Between Wolverhampton and Penkridge (New Town/Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The New Town/Settlement is likely to involve the use of extensive areas of green field land (even when developed around existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required  This broad location largely comprises Agricultural Land Classification (ALC) Grade 3 and Grade 1 land, with some small areas of Grade 4, indicating that the area benefits from some of the best and most valuable soils. Development on this higher value land would lead to its permanent loss.  The New Town/Settlement is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  Although the scale of development envisaged would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  A new settlement between Wolverhampton and Penkridge is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  • Opportunities should be sought to maximise brownfield land when development around existing settlements.  • Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  • That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties  • There are uncertainties relating to the delivery of the development model in

GL Hearn Page 97 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				relation to specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the New Town/Settlement.  The potential for of SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The broad area has some limited areas at the highest risk of flooding. These areas are concentrated around the River Penk and several Brooks which feed into this River. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is the potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The scale of the New Town/Settlement is also likely to ensure that specific development locations would avoid areas of highest flood risk and co-ordinated masterplans could ensure such areas are avoided where they exist within the development envelope. The potential for enhancement of flood protection schemes is also likely.  The New Town/Settlement between Wolverhampton and Penkridge has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  • Development should ensure that opportunities for SuDS are maximised.  Assumptions  • That specific development schemes would avoid areas of highest Flood Risk.  Un

GL Hearn Page 98 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The New Town/Settlement development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. There would also be opportunities to
				increase use of mainline rail connections in Wolverhampton and Penkridge which are only a short journey (approximately 4.5km from Penkridge and 9 km from Wolverhampton but could be closer depending on the precise location of development) away and demand could facilitate the provision of a new railway station. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.
				Overall, mixed significant positive and major negative outcomes have been assessed against this objective.
				Mitigation
				<ul> <li>Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.</li> </ul>
				Assumptions
				Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				Uncertainties
				The extent to which sustainable transport minimise car use.

GL Hearn Page 99 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	+++/	Likely Significant Outcomes  New Towns/Settlements would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. They would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  Within this broad area there is the A449 and the M6 motorway so there is good access to the strategic road network. There is also the mainline railway between Wolverhampton and Stafford, with stations in Penkridge and Wolverhampton.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and promote broader interconnectivity using the rail network (in locations close to rail stations). However, it is recognised that CO2 emissions from transport would increase in line with the quantum of growth.  Overall, mixed significant positive and major negative outcomes have been assessed from the development of a new Town/Settlement between Wolverhampton and Penkridge, although there is some uncertainty related to the delivery of the necessary transport infrastructure to support the scale of development envisaged.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.

GL Hearn Page 100 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				The extent to which sustainable transport helps reduce the use of the private car.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Likely Significant Outcomes  A New Town/Settlement is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  The areas between Wolverhampton and Penkridge contain a number of European and locally designated sites which would need to be considered for the development of a new Town/Settlement in this location. This includes the Cannock Chase SAC and SSSI located around 7km east of Penkridge. The area falls at the intersection between the Cannock Chase and Cank Wood NCA and Shropshire, Cheshire and Staffordshire Plain NCA. The Cannock Chase and Cank Wood NCA area extends north of the Birmingham and Black Country Conurbation. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The Shropshire, Cheshire and Staffordshire Plain NCA is an expanse of flat or gently undulating, lush, pastoral farmland. The Cannock Chase AONB is around 6km east of Penkridge.  This area is in the green belt. The Green Belt study notes that development in this area, whilst being part of the busy corridor between Wolverhampton and Stafford would have a limited effect on the strategic role of the Green Belt because of the containment of the conurbation to the south by the M54 and the absence of a strategic separate function. The Wolverhampton-Stafford railway line forms a potential focus for development, althou

GL Hearn Page 101 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
				new development and Stafford to the north, Cannock to the east and Wolverhampton to the South.  Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the New Town/Settlement model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.  The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is a scattering of listed buildings and Scheduled Monuments in the area between Penkridge and Wolverhampton (mainly concentrated in the smaller settlements) which would need to be considered as part of any plans for a New Settlement/Town. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.  Mitigation  Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals for development of the New Town/Settlement would accord with the NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The location of New Towns/Settlements in relation to designated nature conservation sites an historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant		Likely Significant Outcomes  The provision of development at the scale of a New Town/Settlement is likely to support opportunities to manage impacts on air quality through the implementation of sustainable

GL Hearn Page 102 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
		loading?	++/	transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++/-	Likely Significant Outcomes  The development of New Town/Settlement between Wolverhampton and Penkridge would drive significant economic investment in the locality where it is developed and across the HMA.  The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The scale of development envisaged would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  The broad location is situated in the vicinity of a main rail line, which could support growth, with stations nearby in Penkridge. There are some areas of employment land within Four Ashes and Cannock although the area is some distance from major areas of employment

GL Hearn Page 103 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				around the M6 and M42 corridors. Although the area is accessible to the i54 development south of the M54. There is a junction of the M6 and M54 in reasonable proximity and so there is good access to the strategic road network but there are limited opportunities to contribute to a critical mass of employment in this location.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  A New Town/Settlement is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The New Town/Settlement would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision and opportunities for sporting and recreational spaces. Green infrastructure can also help shape a sense of place.  However, there may be difficulties in ensuring delivery of infrastructure in line with housing development rates, at this quantum of development, which could mean that infrastructure delivery is not aligned with housing development phasing or not delivered at all.  Therefore, there is some uncertainty. However, mitigation through the application of planning obligations may address some of these concerns.

GL Hearn Page 104 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				Overall, a New Town/Settlement between Wolverhampton and Penkridge is considered to have significant positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the New Town/Settlement, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++	Likely Significant Outcomes  The New Town/Settlement development would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a significant contribution to meeting the housing needs of the HMA. The New Town/Settlement would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. A co-ordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  The delivery of the full quantum of housing.

GL Hearn Page 105 of 302

GL Hearn Page 106 of 302

Table 6: East of Lichfield (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. There are also few opportunities to make best use of brownfield land in the location. The area largely comprises Grade 3 agricultural land. Development in this location would therefore involve the loss of this irreplaceable resource. This is assessed as a major negative outcome from the development model.  An urban extension East of Lichfield is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension East of Lichfield would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension East of Lichfield is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  • Maximising the potential for brownfield land on the edge of settlements.  • Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  • That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  • Beyond this broad area of search there is uncertainty relating to the delivery of the development in relation to specific locations.
Climate Change	Contribute to climate change	Make a substantial contribution through		Likely Significant Outcomes

GL Hearn Page 107 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	mitigation	measures such as renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for an Urban Extension East of Lichfield.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  There are only limited areas to the East of Lichfield which are in flood zone 3. These are concentrated around Curborough Brook. However, careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3.  An Urban Extension East of Lichfield has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  • Development should ensure that opportunities for SuDS are maximised.  Assumptions  • Development would avoid areas at highest risk of flooding.  Uncertainties  • None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  An Urban Extension East of Lichfield is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater

GL Hearn Page 108 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	use of the existing main line rail connection at Lichfield, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The exact quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/-	Likely Significant Outcomes  Urban Extensions East of Lichfield would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.  An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.  Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.  Lichfield does benefit from two main line railway stations (Lichfield and Lichfield Trent

GL Hearn Page 109 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Valley) so there would be opportunities to utilise rail transport as a sustainable means of travel. Lichfield Trent Valley is located on the eastern edge of the settlement and could provide a sustainable transport hub for development in the Area of Search. Although there are some employment areas in Lichfield and neighbouring Fradley Park they are not major employment areas in themselves, with greater employment opportunities located along the M6 corridor and in the south of Birmingham via the M40/M42.
				Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for public transport provision.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.  Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and Geodiversity	and restore the quality of landscape, townscape, biodiversity and geodiversity	restore the special qualities of natural and cultural resources?	+/-	An Urban Extension East of Lichfield is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.
				There are a number of environmental assets in the area. The River Mease SSSI and SAC is located around 7.5km to the east of Lichfield; Cannock Chase SAC around 14km to the north west and Cannock Extension Canal SAC around 11km to the south west of Lichfield. Stowe Pool and Walk Mill Clay Pit SSSI (in 'unfavourable and declining' condition) is located in the centre of Lichfield. Alvecote Pools SSSI (in mix of 'unfavourable' and

GL Hearn Page 110 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				'favourable' condition) is located immediately to the east of Tamworth. There are also a number of Local nature Reserves in Tamworth. Hopwas Hays Wood is a large area of ancient and semi natural woodland immediately to the west of Tamworth. These assets would need to be considered when determining any urban extension in this location.
				The area comprises arable land, grassland and woodland. The area lies at the intersection of the Trent Valley Washlands NCA and Cannock Chase and Cank Wood NCA. The Trent Valley Washlands NCA is a distinctly narrow, linear and low-lying landscape, often clearly delineated at its edges by higher ground, and it is largely comprised of the flat flood plains and gravel terraces of the rivers. The areas to the North of Tamworth do not form part of the Green Belt. The area largely comprises grassland and arable land. The area falls within the Cannock Chase and Cank Wood NCA. This area extends north of the Birmingham and Black Country Conurbation. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The Cannock Chase AONB is around 4km west of Lichfield. The areas to the East of Lichfield do not form part of the Green Belt.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the Urban Extension model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related the location of development and the historic assets that may be affected. The areas to the East of Lichfield includes a few dispersed listed buildings with a larger number concentrated within Lichfield itself. There three Scheduled Monuments in the centre of Lichfield and one close to the A38 east of the town. Cathedral Close and Park, a Grade II Registered Park and Garden is located on the western edge of Lichfield. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.
				At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.
				Mitigation
				Specific proposals to bring forward Urban Extensions would mitigate impacts on

GL Hearn Page 111 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				designated assets and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The exact location of development in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension East of Lichfield is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connection at Lichfield and provision of other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 112 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++/-	Likely Significant Outcomes  The development of an Urban Extension East of Lichfield would drive significant economic investment in the location. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  Although there are some employment areas in Lichfield and neighbouring Fradley Park they are not major employment areas in themselves, with greater employment opportunities located along the M6 corridor and in the south of Birmingham via the M40/M42. The area is geographically removed from these locations so there is limited opportunity to play a supporting or complementary role to major established employment areas. However, good rail connectivity may help support access to these other areas.  An urban extension East of Lichfield would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse	Provide extensive and varied open space as part of a well-designed and		An Urban Extension East of Lichfield is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical

GL Hearn Page 113 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	environments that promote a sense of place	built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	++	facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.  An Urban Extension East of Lichfield would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place and would be likely to support the development of sports facilities.  There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.  Overall, an Urban Extension East of Lichfield is considered to have major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  Specific design will seek out opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and	Provide a range of opportunities for affordable housing across a range of tenures?		Likely Significant Outcomes  The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing

GL Hearn Page 114 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	affordability to meet local needs			envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension East of Lichfield would also support the delivery of facilities, services and employment to support the needs of future residents.
			++	There is some uncertainty related to focusing the quantum of housing in one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.
				Overall, major positive outcomes have been assessed against this objective.
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				None.

GL Hearn Page 115 of 302

Table 7: Around Fradley & Alrewas (New Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	4	Likely Significant Outcomes  The New Town/Settlement is likely to involve the use of extensive areas of green field land (even when developed around the existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required This broad location largely comprises Agricultural Land Classification (ALC) Grade 3 and Grade 1 land, with some small areas of Grade 4, indicating that the area benefits from some of the best and most valuable soils. Development on this higher value land would lead to its permanent loss.  The New Town/Settlement is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  The New Town/Settlement would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  A new settlement around Fradley & Alrewas is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  • Opportunities should be sought to maximise brownfield land when development around existing settlements.  • Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  • That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties  • There are uncertainties relating to the delivery of the development model in relation to specific localities.

GL Hearn Page 116 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++/	Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the New Town/Settlement.  The potential for of SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The broad area has a number of areas at the highest risk of flooding. These areas are concentrated around the River Tame and some smaller Brooks. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is the potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The extent of areas of flood risk in this broad area could be a significant constraint unless there was development to the west of the A38. Co-ordinated masterplans could help avoid these areas of high flood risk. The potential for enhancement of flood protection schemes is also likely.  A New Town/Settlement at Fradley has been assessed as being likely to have a mixture of major positive and major negative outcomes against this objective.  Mitigation  • Development should ensure that opportunities for SuDS are maximised.  Assumptions  • That specific development schemes would avoid areas of highest Flood Risk.  Uncertainties

GL Hearn Page 117 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The New Town/Settlement is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. There would also be opportunities to increase use of mainline rail connection in Lichfield which is only a short journey (approximately 4.5km) away. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.  However, the area is largely remote from higher order settlements which may increase the levels commuting within the area. The opportunities for sustainable transport solutions to other areas is also limited.  Overall, mixed significant positive outcomes (related to the development model) and significant negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties

GL Hearn Page 118 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions? Reduce the need for use of unsustainable forms of travel?	+++/	Likely Significant Outcomes  The New Town/Settlement could provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. It would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  There A38 runs through this broad area and connects to the M6 Toll motorway and so there is good access to the strategic road network. The railway line between Birmingham and Burton runs through this broad area and there is a station in Lichfield.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and promote broader interconnectivity using the rail network (in locations close to rail stations). However, it is recognised that CO2 emissions from transport would increase in line with the quantum of growth.  Lichfield does benefit from a main line rail connection and this is the nearest railway station. There is no railway station at Fradley & Alrewas but there would be opportunities to increase use of the rail connection in Lichfield. The only main route to access areas to the south west and north east is along the A38.  Overall, mixed significant positive and major negative outcomes have been assessed from the development of a new Town/Settlement at Fradley & Alrewas, although there is some uncertainty related to the delivery of the necessary transport infrastructure to support the scale of development envisaged.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated s

GL Hearn Page 119 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				design of a scheme and is delivered in line with the quantum of growth.  Uncertainties
				<ul> <li>The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.</li> <li>The extent to which sustainable transport helps reduce the use of the private car.</li> </ul>
Historic Environment.	Protect, enhance and restore the	Protect, enhance and restore the special		Likely Significant Outcomes
Landscape, Biodiversity and Geodiversity	quality of landscape, townscape, biodiversity and geodiversity	qualities of natural and cultural resources?		The New Town/Settlement is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.
			++/	The areas around Fradley & Alrewas includes The River Mease SSSI and SAC located 3km to the east of Fradley, and Croxall Lakes Local Nature Reserve which would need to be considered as part of the development of a New Town/Settlement here, although given the location of these likely that effects may be limited. This area is not in the Green Belt.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the New Town/Settlement model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is a scattering of listed buildings and Scheduled Monuments in the area surrounding Fradley & Alrewas, with a particular concentration of listed buildings at Alrewas, along with the National Memorial Arboretum Scheduled Monument which would need to be considered as part of any plans for a New Settlement/Town. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  Overall, there are considered to be a mix of major positive and major negative outcomes

GL Hearn Page 120 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>although some uncertainty exist in relation to these outcomes.</li> <li>Mitigation</li> <li>Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.</li> <li>Assumptions</li> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development of the New Town/Settlement would accord with the NPPF approach to protection and enhancement of historic and natural environment.</li> <li>Uncertainties</li> <li>The location of New Towns/Settlements in relation to designated nature conservation sites an historic assets.</li> </ul>
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale of a New Town/Settlement is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions

GL Hearn Page 121 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				None.
				Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong	Provide a significant		Likely Significant Outcomes
	and sustainable economy which invests in skills	source of employment which contributes to a high degree of self-		The development of New Town/Settlement around Fradely and Alrewas would drive significant economic investment in this area.
	development containment?	containment?	+++/	The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.
			+++/	The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.
				There is an area of employment in Fradley and development here would help support its existing role. However, the area is geographically remote from the main employment areas in the HMA along the M6 and M42 corridors. There are limited opportunities for providing complementary roles associated with development in this location.
				Overall, significant positive and major negative outcomes have been assessed against this objective.
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				None.

GL Hearn Page 122 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  The New Town/Settlement is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The scale of development envisaged would support opportunities for the delivery of employment land supporting access to employment locally.  The New Town/Settlement would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision and opportunities for sporting and recreational spaces. Green infrastructure can also help shape a sense of place.  However, there may be difficulties in ensuring delivery of infrastructure in line with housing development rates, at this quantum of development, which could mean that infrastructure delivery is not aligned with housing development phasing or not delivered at all. Therefore, there is some uncertainty. However, mitigation through the application of planning obligations may address some of these concerns.  Overall, a New Town/Settlement at Fradley & Alrewas is considered to have significant positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties

GL Hearn Page 123 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Town/Settlement, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++	Likely Significant Outcomes  The New Town/Settlement development would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a significant contribution to meeting the housing needs of the HMA. The New Town/Settlement would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in one location, and the delivery rates associated with the quantum of development envisaged. A co-ordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  The delivery of the full quantum of housing.

GL Hearn Page 124 of 302

Table 8: North of Tamworth (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from the development model. The area largely comprises Grade 3 agricultural land. Development in this location would therefore involve the loss of this irreplaceable resource.  An urban extension North of Tamworth is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension North of Tamworth would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension North of Tamworth is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Maximising the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  Beyond this broad area of search there is uncertainty relating to the delivery of the development in relation to exact specific locations.
Climate Change	Contribute to climate change	Make a substantial contribution through		Likely Significant Outcomes

GL Hearn Page 125 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	mitigation	measures such as renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++/?	The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for an Urban Extension East of Lichfield.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  However, there are areas to the North of Tamworth related to the River Tame which are in flood zones 2 and 3 and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3. However, there is an area to the North of Tamworth which does benefit from existing flood defences.  An Urban Extension North of Tamworth has been assessed as being likely to have a major positive outcome against this objective. Although there is uncertainty relating to the exact position of the development.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  Development would avoid areas at highest risk of flooding.  Uncertainties
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  An Urban Extension North of Tamworth is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.

GL Hearn Page 126 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater use of the existing main line rail connection at Tamworth, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited. The Lichfield Road Industrial Estate and Ventura Retail Park are both located on the western edge of the town which may help support access by foot/bike. Tamworth also provides a range of services and facilities, which could be accessed by future residents. However, the location geographically removed from the main areas of employment in the region (along the M6 and M42 corridors).
				Overall, mixed major positive and minor negative outcomes have been assessed against this objective.
				Mitigation
				<ul> <li>Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.</li> </ul>
				Assumptions
				Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				Uncertainties
				The exact quantum of development.
Transport,	Promote energy	Create a significant and		Likely Significant Outcomes
connectivity and CO2 Emissions	efficiency and use of sustainable modes of transport and energy efficiency	enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?		An Urban Extension North of Tamworth would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.
		Reduce the need for use of unsustainable forms of travel?		An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in

GL Hearn Page 127 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	emissions related to this increase in transport.
				Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.
				Tamworth does benefit from a main line railway station so there would be opportunities to utilise rail transport as a sustainable means of travel. The Lichfield Road Industrial Estate and Ventura Retail Park are both located on the western edge of the town which may help support access by foot/bike. Tamworth also provides a range of services and facilities, which could be accessed by future residents. However, the location geographically removed from the main areas of employment in the region (along the M6 and M42 corridors) with travel required through Tamworth/Wilnecote to link up with Junction 10 of the M42 or the south west to access the M6 Toll. Development in this area may exacerbate existing transport issues experienced within Tamworth.
				Overall, a mix of major positive and minor negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for public transport provision.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  An Urban Extension North of Tamworth is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new

GL Hearn Page 128 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	geodiversity			habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  There are a number of environmental assets in the area. The River Mease SSSI and SAC is located around 7km to the North of Tamworth. Stowe Pool and Walk Mill Clay Pit SSI (in 'unfavourable and declining' condition) is located in the centre of Lichfield which is around 9km to the North West of Tamworth. Alvecote Pools SSSI (in mix of 'unfavourable' and favourable' condition) is located immediately to the east of Tamworth. There are also a number of Local nature Reserves in Tamworth. Hopwas Hays Wood is a large area of ancient and semi natural woodland immediately to the west of Tamworth. These assets would need to be considered when determining any urban extension in this location.  The area comprises arable land, grassland and woodland. The area lies in the Trent Valley Washlands NCA. The Trent Valley Washlands NCA is a distinctly narrow, linear and low-lying landscape, often clearly delineated at its edges by higher ground, and it is largely comprised of the flat flood plains and gravel terraces of the rivers. The areas to the North of Tamworth do not form part of the Green Belt.  Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the Urban Extension model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.  The impact on historic assets is largely related the location of development and the historic assets that may be affected. The area to the North of Tamworth does include some listed buildings and Scheduled Monuments, with particular concentrations of listed buildings in Whittington, Elford and Harleston. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and pote
				Mitigation

GL Hearn Page 129 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.</li> <li>Assumptions</li> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.</li> <li>Uncertainties</li> <li>The exact location of development in relation to designated nature conservation sites and historic assets.</li> </ul>
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension North of Tamworth is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connection at Tamworth and provision of other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and negative outcomes against this objective.  Mitigation  None.  None.  Uncertainties

GL Hearn Page 130 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++	Likely Significant Outcomes  The development of an Urban Extension North of Tamworth would drive significant economic investment in the location and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  An urban extension North of Tamworth would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	++	An Urban Extension North of Tamworth is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be

GL Hearn Page 131 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The Urban Extension would support opportunities for the delivery of employment land
				supporting access to employment locally.
				An Urban Extension North of Tamworth would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place and would be likely to support the development of sporting facilities.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, an Urban Extension North of Tamworth is considered to have major positive outcomes for this objective.
				Mitigation
				The integration of infrastructure delivery tied to specific development phasing.
				Assumptions
				Specific design will seek out opportunities to design out crime.
				Uncertainties
				<ul> <li>Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.</li> </ul>
Housing	Provide decent	Provide a range of		Likely Significant Outcomes
and affordable housing of the right quantity, type, tenure and affordability to meet local needs	ng of the affordable housing across uantity, a range of tenures? ehure and ability to		The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension North of Tamworth would also support the delivery of facilities, services and employment to support the needs of future residents.	
			++	There is some uncertainty related to focusing the quantum of housing in to one location

GL Hearn Page 132 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				(particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.
				Overall, significant positive outcomes have been assessed against this objective.
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				None.

GL Hearn Page 133 of 302

Table 9: North West of Tamworth (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from the development model. The area largely comprises Grade 3 agricultural land. Development in this location would therefore involve the loss of this irreplaceable resource. However, there may be opportunities to make use of brownfield land in this location. An urban extension North West of Tamworth is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension North West of Tamworth would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension North West of Tamworth is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Maximising the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  Beyond this broad area of search there is uncertainty relating to the delivery of the development in relation to exact specific locations.

GL Hearn Page 134 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++/?	Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for an Urban Extension East of Lichfield.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  However, there are areas to the North West of Tamworth which are in flood zones 2 and 3, largely related to the River Tame and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3. However, there is an area to the North West of Tamworth which does benefit from existing flood defences. There may be opportunities to provide further flood defence solutions as part a development here. There is some uncertainty  An Urban Extension North West of Tamworth has been assessed as being likely to have a major positive outcome against this objective although some uncertainty remains in light of the known flood risk within the area.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  Development would avoid areas at highest risk of flooding.  Uncertainties
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  An Urban Extension North West of Tamworth is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated

GL Hearn Page 135 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions. The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater use of the existing main line rail connection at Tamworth, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited. The Lichfield Road Industrial Estate and Ventura Retail Park are both located on the western edge of the town which may help support access by foot/bike. Tamworth also provides a range of services and facilities, which could be accessed by future residents. However, the location geographically removed from the main areas of employment in the region (along the M6 and M42 corridors).  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The exact quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?		Likely Significant Outcomes  An Urban Extension North West of Tamworth would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.

GL Hearn Page 136 of 302

SEA Theme	Objective	Decision Making Criteria	AoS Score	Commentary
		To what extent is the Development Model likely to:		
		Reduce the need for use of unsustainable forms of travel?	++/-	An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.
			<b>""</b>	Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.
				Tamworth does benefit from a main line railway station so there would be opportunities to utilise rail transport as a sustainable means of travel. The Lichfield Road Industrial Estate and Ventura Retail Park are both located on the western edge of the town which may help support access by foot/bike. Tamworth also provides a range of services and facilities, which could be accessed by future residents. However, the location geographically removed from the main areas of employment in the region (along the M6 and M42 corridors) with travel required through Tamworth/Wilnecote to link up with Junction 10 of the M42 or the south west to access the M6 Toll.
				Overall, a mix of major positive and minor negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for public transport provision.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and	and restore the quality of landscape,	restore the special qualities of natural and	+/-	An Urban Extension North West of Tamworth is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden

GL Hearn Page 137 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Geodiversity	townscape, biodiversity and geodiversity	cultural resources?		Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.
				There are a number of environmental assets in the area. The River Mease SSSI and SAC is located around 7km to the North of Tamworth. Stowe Pool and Walk Mill Clay Pit SSSI (in 'unfavourable and declining' condition) is located in the centre of Lichfield which is around 9km to the North West of Tamworth. Alvecote Pools SSSI (in mix of 'unfavourable' and 'favourable' condition) is located immediately to the east of Tamworth. There are also a number of Local nature Reserves in Tamworth whilst Hopwas Hays Wood is a large area of ancient and semi natural woodland immediately to the west of Tamworth These assets would need to be considered when determining any urban extension in this location.
				The area comprises arable land, grassland and woodland. The area lies at the intersection of Cannock Chase and Cank Wood NCA and Trent Valley Washlands NCA. The Cannock Chase and Cank Wood NCA area extends north of the Birmingham and Black Country Conurbation. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The Trent Valley Washlands NCA is a distinctly narrow, linear and low-lying landscape, often clearly delineated at its edges by higher ground, and it is largely comprised of the flat flood plains and gravel terraces of the rivers.
				The areas to the West and North West of Tamworth form part of the Green Belt. The Green Belt study notes that the Birmingham & Fazely Canal and River Tame form the broad western boundary of Tamworth, to the south of the A5 the distinction between town and country is less distinct. The A5 is a strong boundary feature which creates a division between western and south western areas which could be considered for significant development in the form of an urban extension. Development in this locality, whilst impinging on the strategic gap between Birmingham and Tamworth would not significantly compromise the strategic role of the Green Belt in this location.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the scale of development envisaged provides significant

GL Hearn Page 138 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				opportunities to mitigate effects through comprehensive and co-ordinated design solutions.  The impact on historic assets is largely related the location of development and the historic assets that may be affected. The areas to the North West of Tamworth does include some listed buildings and Scheduled Monuments, with particular concentrations of listed buildings in Tamworth itself and a more dispersed collection of listed buildings in the rural area. Tamworth Castle Scheduled Monument is located close to the town centre. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.  At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.  Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.  Mitigation  Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The exact location of development in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?		Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension North West of Tamworth is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions

GL Hearn Page 139 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connection at Tamworth and provision of other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.
			++/	A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.
				There are considered to be a mix of major positive and significant negative outcomes against this objective.
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong	Provide a significant		Likely Significant Outcomes
	and sustainable economy which invests in skills development	source of employment which contributes to a high degree of self- containment?		The development of an Urban Extension North West of Tamworth would drive significant economic investment in the location and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.
			++/-	Tamworth does benefit from a main line railway station so there would be opportunities to utilise rail transport as a sustainable means of travel to other employment areas. There are areas of existing employment within Tamworth. However, the location is geographically removed from the main areas of employment in the region (along the M6 and M42 corridors) with travel required through Tamworth/Wilnecote to link up with Junction 10 of the M42 or the south west to access the M6 Toll. Development in this location is unlikely to help deliver a critical mass of employment in the area or provide a

GL Hearn Page 140 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				significant complementary role.  An urban extension North of Tamworth would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  Overall, major positive outcomes and minor negative outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	++	An Urban Extension North West of Tamworth is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of onsite medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.  An Urban Extension North West of Tamworth would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place and would be likely to support the development of sporting

GL Hearn Page 141 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				facilities.  There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.  Overall, an Urban Extension North West of Tamworth is considered to have major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  Specific design will seek out opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	++	Likely Significant Outcomes  The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension North West of Tamworth would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with the quantum of development envisaged. A co-ordinated approach would therefore be required to ensure delivery.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  None.

GL Hearn Page 142 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul><li>Uncertainties</li><li>None.</li></ul>

GL Hearn Page 143 of 302

Table 10: Around Shenstone (New Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The New Town/Settlement is likely to involve the use of extensive areas of green field land (even when developed around the existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required This broad location largely comprises Agricultural Land Classification (ALC) Grade 3 and Grade 1 land, with some small areas of Grade 4, indicating that the area benefits from some of the best and most valuable soils, albeit that the areas of Grade 3 land are relatively small. Development on this higher value land would lead to its permanent loss.  The New Town/Settlement is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  The scale of development envisaged would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  A new settlement at Shenstone is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land when development around existing settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties

GL Hearn Page 144 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the New Town/Settlement.  The potential for of SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The broad area has relatively small areas at the highest risk of flooding. These areas are concentrated around the Black Brook. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is the potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The scale of the New Town/Settlement is also likely to ensure that specific development locations would avoid areas of highest flood risk and co-ordinated masterplans could ensure such areas are avoided where they exist within the development envelope. The potential for enhancement of flood protection schemes is also likely.  A New Town/Settlement at Shenstone has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  • Development should ensure that opportunities for SuDS are maximised.  Assumptions

GL Hearn Page 145 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The New Town/Settlement is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. There would also be opportunities to increase use of mainline rail connections in Shenstone itself and also in Lichfield (approximately 4.5km away). However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.  Overall, mixed significant positive and major negative outcomes have been assessed
				<ul> <li>against this objective.</li> <li>Mitigation</li> <li>Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.</li> </ul>
				Assumptions     Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties     The extent to which sustainable transport minimise car use.

GL Hearn Page 146 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	+++/	Likely Significant Outcomes  The New Town/Settlement could provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. It would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  The M6 Toll Road Motorway passes to the North of Shenstone and there is the A5217 connecting the area to Birmingham and Lichfield so there is good access to the strategic road network. There is a rail station in Shenstone and stations further south in Sutton Coldfield so there is also good access to the rail network.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and promote broader interconnectivity using the rail network (there is a railway station in Shenstone). However, it is recognised that CO2 emissions from transport would increase in line with the quantum of growth.  Overall, mixed significant positive and major negative outcomes have been assessed from the development of a new Town/Settlement at Shenstone, although there is some uncertainty related to the delivery of the necessary transport infrastructure to support the scale of development envisaged.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.

GL Hearn Page 147 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary  delivered in line with expectations.
				The extent to which sustainable transport helps reduce the use of the private car.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Likely Significant Outcomes  The New Town/Settlement is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  The areas around Shenstone do not contain any biodiversity designations. However, Sutton Park NNR and SSSI is around 6km to the south of Shenstone. The Cannock Chase SAC and SSSI is around 18km to the north west.  The area falls within the Cannock Chase and Cank Wood NCA. This NCA area extends north of the Birmingham and Black Country Conurbation. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. The Cannock Chase AONB is located around 9km to the north east of Shenstone.  The land around Shenstone is in the Green Belt. The Green Belt study notes that although part of the strategic gap between Lichfield and the Birmingham conurbation at Sutton Coldfield, the size of the gap and presence of railway line and station at Shenstone means that it is worthy of further scrutiny. In addition, the area contains the M6 Toll (which parallels the original A5) which has created a significant east-west boundary separating Lichfield from the edge of the conurbation at Sutton Coldfield to the south. Development in this location would further emphasise the strategic separation role of land to the north of Sutton Coldfield.  Although in general terms the scale of development is such that

GL Hearn Page 148 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				opportunities to mitigate effects through comprehensive and co-ordinated design solutions.  The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is a concentration of listed buildings in Shenstone itself with a scattering of listed buildings and a couple of schedule monuments in the area around Shenstone which would need to be considered as part of any plans for a New Settlement/Town. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.  Mitigation  Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals for development of the New Town/Settlement would accord with the NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The location of New Towns/Settlements in relation to designated nature conservation sites an historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale of a New Town/Settlement is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the

GL Hearn Page 149 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation
				<ul> <li>None.</li> <li>Assumptions</li> <li>None.</li> <li>Uncertainties</li> <li>Specific design measures incorporated to manage air quality impacts from road travel.</li> </ul>
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++/-	Likely Significant Outcomes  The development of New Town/Settlement around Shenstone would drive significant economic investment in this area and across the HMA.  The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  However, the opportunities to support a critical mass of employment is limited in this location. The Area of Search is within the line of the M6 Toll Road but there are no areas of employment in close proximity.  Overall, a mix of significant positive and minor negative outcomes have been assessed against this objective.  Mitigation  None.

GL Hearn Page 150 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  The New Town/Settlement is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The New Town/Settlement would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision and opportunities for sporting and recreational spaces. Green infrastructure can also help shape a sense of place.  However, there may be difficulties in ensuring delivery of infrastructure in line with housing development rates, at this quantum of development, which could mean that infrastructure delivery is not aligned with housing development phasing or not delivered at all. Therefore, there is some uncertainty. However, mitigation through the application of planning obligations may address some of these concerns.  Overall, a New Town/Settlement at Shenstone is considered to have significant positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.

GL Hearn Page 151 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				That specific design will seek opportunities to design out crime.  Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the New Town/Settlement, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable	Provide a range of opportunities for		Likely Significant Outcomes
	housing of the right quantity, type, tenure and affordability to meet local needs	affordable housing across a range of tenures? t, tenure and rdability to		The New Town/Settlement development would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The New Town/Settlement would also support the delivery of facilities, services and employment to support the needs of future residents.
			+++	There is some uncertainty related to focusing the quantum of housing in one location, and the delivery rates associated with the quantum of development envisaged. A co-ordinated approach would be required to ensure delivery.
				Overall, significant positive outcomes have been assessed against this objective.
				Mitigation
				None.  Assumptions
				None.
				Uncertainties
				The delivery of the full quantum of housing.

GL Hearn Page 152 of 302

GL Hearn Page 153 of 302

Table 11: North of Walsall around Brownhills (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from the development model. The area largely comprises Grade 3 agricultural land. Development in this location would therefore involve the loss of this irreplaceable resource. However, there may be opportunities to make use of brownfield land in this location. An urban extension North West of Birmingham and around Aldridge is likely to be able to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  An urban extension North of Walsall around Brownhills would provide opportunities for the integration of effective water and waste efficiency measures when developed, however the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  An urban extension North of Walsall around Brownhills is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Maximising the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  Beyond this broad area of search there is uncertainty relating to the delivery of the development in relation to exact specific locations.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and		Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the

GL Hearn Page 154 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the	AoS Score	Commentary
		Development Model likely to:		
		SuDS?		quantum of development considered for an Urban Extension North of Birmingham and
		Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	around Aldridge.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.
				However, there are areas to the North of Walsall around Brownhills which are in flood zone 3 (albeit relatively small areas) and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3. However, there is an area to the North of Tamworth which does benefit from existing flood defences.
				An Urban Extension North of Walsall around Brownhills has been assessed as being likely to have a major positive outcome against this objective.
				Mitigation
				Development should ensure that opportunities for SuDS are maximised.     Assumptions
				Development would avoid areas at highest risk of flooding.  Uncertainties
				None.
	Adapt to the Be an exemplar for a	Be an exemplar for a multifunctional response		Likely Significant Outcomes
	effects of climate change	to climate change?		An Urban Extension North of Walsall around Brownhills is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.
				The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater

GL Hearn Page 155 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	use of the existing main line rail connections in this area for example in Walsall and Sutton Coldfield and demand could result in new rail stations being provided, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The exact quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/-	Likely Significant Outcomes  Urban Extensions North of Walsall around Brownhills would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.  An Urban Extension here would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.  Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development envisaged would also provide critical mass to enable sustainable public transport solutions.  There is currently no railway station in Aldridge but there are other railway stations in this

GL Hearn Page 156 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				area North of Walsall so there would be opportunities to increase use of rail travel as a sustainable means of transport. The area is close to Cannock, Burntwood and Alridge which all provide employment opportunities. The area is close to the M6 Toll Road which could help access to other areas for employment.  Overall, a mix of major positive and minor negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth
				<ul> <li>and the opportunities for public transport provision.</li> <li>Mitigation</li> <li>Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.</li> <li>Assumptions</li> </ul>
				<ul> <li>Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.</li> <li>Uncertainties</li> <li>The delivery of infrastructure to support the quantum of development envisaged.</li> </ul>
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  An Urban Extension North of Walsall around Brownhills is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.
				There are a number of biodiversity designations in this area (both European and locally designated sites) and - these would need to be considered for any urban extension in this location. Cannock Chase SAC lies around 11km north of Aldridge whilst Cannock Canal Extension lies around around 3km to the north west. Sutton Park National Nature Reserve is located around 4km to the south east of Aldridge. Shire Oak Park LNR is located with Brownhills. The large Chasewater and Southern Staffordshire Coalfield Heaths SSSI ('unfavourable but recovering' condition' is located immediately west of Burntwood, whilst

GL Hearn Page 157 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				other SSSIs lie west of Brownhills and Aldridge.  The area largely comprises grassland and arable land. The area falls within the Cannock Chase and Cank Wood NCA. This area extends north of the Birmingham and Black Country Conurbation. It is situated on higher land consisting of sandstone and the South Staffordshire Coalfield. Cannock Chas AONB is located immediately north of Burntwood. The areas to the North of Birmingham and Around Aldridge form part of the Green Belt. The Green Belt study notes that whilst part of the Green Belt separating the various towns in this location, and more generally between Birmingham and Lichfield/Rugeley, there could be opportunities for accommodating various scales of development on the complex urban edges which characterise the area without further significant compromise to the strategic function of the Green Belt. Depending on the scale of development, there could be effective loss of separation (and separate identity), although the significance of this would have to be further considered given the current high degree of interconnection (functional and physical) between these areas.
				Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the scale of development envisaged provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.
				The impact on historic assets is largely related the location of development and the historic assets that may be affected. This area does include a number of listed buildings with particular concentrations in the urban areas (for example in Sutton Coldfield and Walsall) and then a scattering of listed buildings in the countryside and a small number of registered parks and gardens. There are also a small number of scheduled monuments dispersed throughout this area. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.
				At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.

GL Hearn Page 158 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.     Assumptions     That development would comply with requirements for HRA and appropriate assessment.     That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.     Uncertainties     The exact location of development in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load?  Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension North of Walsall around Brownhills is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connections at locations including in Walsall and Sutton Coldfield and (potentially) provision of new railway stations and other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and negative outcomes against this objective.  Mitigation  None. Assumptions

GL Hearn Page 159 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>None.         Uncertainties     </li> <li>Specific design measures incorporated to manage air quality impacts from road</li> </ul>
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++/-	Likely Significant Outcomes  The development of an Urban Extension North of Birmingham and around Aldridge would drive significant economic investment in this location. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  There is currently no railway station in Aldridge but there are other railway stations in this area North of Birmingham so there would be opportunities to increase use of rail travel as a sustainable means of transport. The area is close to Cannock, Burntwood and Alridge which all provide employment opportunities. The area is close to the M6 Toll Road which could help access to other areas for employment. However, development is unlikely to contribute to the development of a critical mass of employment in this location. There may however, be opportunities to act as complementary development, particularly to the existing large employment area in Aldridge, although the linkages to these areas may be limited due to the transport infrastructure and patterns of residential development in the area.
				An urban extension in this location would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None. Uncertainties  None.

GL Hearn Page 160 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	**	An Urban Extension North of Walsall around Brownhills is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.  An Urban Extension in this location would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place and would be likely to support the provision of sporting facilities.  There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.  Overall, an Urban Extension North of Walsall around Brownhills is considered to have major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  Specific design will seek out opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable	Provide a range of opportunities for		Likely Significant Outcomes

GL Hearn Page 161 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	housing of the right quantity, type, tenure and affordability to meet local needs	affordable housing across a range of tenures?	++	The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension North of Walsall around Brownhills would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with the quantum of development envisaged. A co-ordinated approach would therefore be required to ensure delivery.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.

GL Hearn Page 162 of 302

Table 12: East of Polesworth (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	4/	Likely Significant Outcomes  Development this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. There are likely to be few opportunities to re-use brownfield land in this location. This is assessed as a major negative outcome from the development model. The area largely comprises Grade 2 and Grade 3 agricultural land. Development in this location would therefore involve the loss of this irreplaceable resource.  The development model is likely to ensure capacity at these locations to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater. Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  The potential for brownfield land on the edge of Polesworth should be maximised. Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties There are uncertainties relating to the specific delivery in this location.
Climate Change	Contribute to climate change	Make a substantial contribution through measures such as		Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such

GL Hearn Page 163 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
	mitigation	renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development considered for an Urban Extension East of Polesworth.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  However, there are areas to the East of Polesworth related to the River Anker and its tributaries which are in flood zone 3 and so careful consideration would need to be given to the siting of any urban extensions to avoid flood zone 3. However, there is an area to the North of Tamworth which does benefit from existing flood defences.  An Urban Extension East of Polesworth has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  Development would avoid areas at highest risk of flooding.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  An Urban Extension East of Polesworth is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, and could include greater

GL Hearn Page 164 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
			++/-	use of the existing main line rail connections in nearby Wilnecote and Polesworth and demand could result in new rail stations being provided, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The exact quantum of development.  Mitigation  Assumptions  Uncertainties
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of		Likely Significant Outcomes  Urban Extensions East of Polesworth would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the exact quantum of development with development at a higher level considered to provide the best opportunity for a fuller range of services and facilities.  An Urban Extension here would also support a level of employment development. This

GL Hearn Page 165 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
		travel?	++/	could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.
			**/-	Comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development envisaged would also provide critical mass to enable sustainable public transport solutions.
				There is a railway station in Polesworth, which could provide a hub for sustainable transport solutions and there are other railway stations in this area, for example in nearby Wilnecote and Tamsworth, so there would be opportunities to increase use of rail travel as a sustainable means of transport. The area is also located close to the M42. The area is close to Tamworth, which does provide a level of employment and service provision, and Birch Coppice Business Park, but the Area of Search is relatively isolated from major areas of employment around the M6 corridor and more southerly parts of the M42.
				Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the exact quantum of growth and the opportunities for public transport provision.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and Geodiversity	and restore the quality of landscape, townscape, biodiversity and	restore the special qualities of natural and cultural resources?	+/-	An Urban Extension East of Polesworth is likely to provide opportunities for biodiversity improvements, as it is assumed that development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new

GL Hearn Page 166 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
	geodiversity			habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  Immediately east of Polesworth is a SSSI (Birches Barn Meadows in 'favourable' condition) and around 8km East is Sheepy Fields SSSI (also in 'favourable' condition). Alvecote Pools SSSI is located just north of the M42 and is partially in 'favourable' and 'unfavourable' condition. River Mease SAC lies around 15km to the north and east of Polesworth.  The area largely comprises arable land and grassland. The area falls in the Mease/Sence Lowlands NCA. This is characterised as a gently rolling agricultural landscape centred around the rivers Mease, Sence and Anker. These lowlands retain a rural, remote character, with small villages, red brick farmsteads and occasional historic parkland and country houses. The area is not in the current Green Belt. Development here would have impacts on the largely rural character with the rail line providing a distinctive edge to the settlement of Polesworth. Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the scale of development envisaged provides significant opportunities to mitigate effects through comprehensive and coordinated design solutions.  The impact on historic assets is largely related the location of development and the historic assets that may be affected. There few historic assets in the area. There are concentrations of listed buildings in Polesworth itself and within some of the smaller settlements to the East of Polesworth Abbey. Merevale Hall Grade II* Registered Park and Garden is located around 7km to the south of Polesworth. Development would have to
				have regard to these assets. There is potential for any development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.  At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.  Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the exact location of the development.

GL Hearn Page 167 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				<ul> <li>Mitigation</li> <li>Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.</li> <li>Assumptions</li> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.</li> <li>Uncertainties</li> <li>The exact location of development in relation to designated nature conservation sites and historic assets.</li> </ul>
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged for an Urban Extension East of Polesworth is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth, although this could be mitigated to an extent by promotion of the existing main line rail connections, for example in Polesworth and nearby Wilnecote and Tamsworth, and provision of new railway stations and other forms of sustainable transport. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions

GL Hearn Page 168 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				None.     Uncertainties     Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++/-	Likely Significant Outcomes  The development of an Urban Extension East of Polesworth would drive significant economic investment in this location and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  An urban extension in this location would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  There is a railway station in Polesworth, which could provide a hub for sustainable transport solutions and there are other railway stations in this area, for example in nearby Wilnecote and Tamsworth, so there would be opportunities to increase use of rail travel as a sustainable means of transport to other employment areas. The area is also located close to the M42. The area is close to Tamworth, which does provide a level of employment and service provision, and Birch Coppice Business Park, but the Area of Search is relatively isolated from major areas of employment around the M6 corridor and more southerly parts of the M42.  Overall, mixed major positive and negative outcomes have been assessed against this objective. Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 169 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	An Urban Extension East of Polesworth is likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on-site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The Urban Extension would support opportunities for the delivery of employment land supporting access to employment locally.  An Urban Extension in this location would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The scale of development envisaged would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place and would be likely to support the development of sporting facilities.  There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.  Overall, an Urban Extension East of Polesworth is considered to have major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  Specific design will seek out opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 170 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	**	Likely Significant Outcomes  The Urban Extension would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged would make a major contribution to meeting the housing needs of a LPA within the HMA. An Urban Extension East of Polesworth would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with the quantum of development envisaged. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.

Table 13: East of Birmingham (Employment Led)

GL Hearn Page 171 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. However, due to the existing land use of the area, there may be opportunities to regenerate brownfield land as part of any specific proposals. The likelihood for the use of greenfield land is assessed as a major negative outcome. The land largely comprises ALC Grade 3, which suggests likelihood of some of the best and most versatile land in the Area of Search. Development would lead to the loss of this irreplaceable resource.  The Area of Search is likely to have capacity to ensure sustainable waste and water management including comprehensive schemes to harvest rainwater.  The location is therefore considered to have mixed minor positive and major negative outcomes in relation to this objective.  Mitigation  Opportunities to re-use brownfield land should be maximised.  Assumptions  That development will ensure that opportunities are maximised for waste and water resources.  Uncertainties  There are uncertainties relating to the specific location of the development.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++/?	Likely Significant Outcomes  The development may contribute to the delivery of co-ordinated onsite renewable and low carbon technologies e.g. solar, biomass and/or combined heat and power although there is some uncertainty dependent on the developments that come forward.  The development of a strategic site is likely to be capable of adequately incorporating SuDS. The Area of Search has an area of flood zones 2 and 3 around the River Cole. Development could be focussed around Junction 8 to avoid this. However, there may be impacts on the developability of the area. However, this is uncertain dependent on specific locations identified.

GL Hearn Page 172 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				The Area of Search has been assessed as being likely to have a major positive outcome against this objective. However, there is some uncertainty based on the specific location identified.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	++/-	Likely Significant Outcomes  Development in this AoS is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The location of proposals in line with existing commuting/travel patterns (to existing areas of employment) is unlikely to drive changes in car use/travel behaviour so the development model is unlikely to present opportunities for innovative transport solutions.  Overall, mixed major positive and minor negative outcomes have been assessed against this development model.  Mitigation  Masterplans/design briefs should support green infrastructure provision that best mitigates the effects of climate change.  Assumptions  None.  Uncertainties  None.

GL Hearn Page 173 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/-	Likely Significant Outcomes  This Area of Search would reflect existing sub-regional commuting patterns. The extent to which the development model would impact on this objective is largely based on the additional traffic generated as part of these commuting patterns.  The location of the Area of Search already provides an existing critical mass of employment land around the M6 corridor and north and south of Coleshill Parkway Station and is strategically well located for the motorway network (as it is close to Junctions 4a of the M6, 7a and 8 of the M42, and M6 Toll) and rail network with a station at Water Orton and Coleshill Parkway. However, the area would draw more commuters in.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective although the extent of the impacts are dependent on the quantum of development and the opportunities to maximise sustainable transport.  Mitigation  Implementation of site specific measures to encourage car sharing.  Assumptions  None.  Uncertainties  The extent to which public transport provision would service these areas.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  Development envisaged at this Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. There are few statutory designated conservations assets within the broader area. Whiteacre Heath SSSI (in 'favourable' condition) lies around 2.5 km to the north east of Junction 8 of the M42. Coleshill and Bannerley Pools SSSI (in 'unfavourable

GL Hearn Page 174 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				recovering' condition) lies around 3.5 km to the south of the Junction. The River Blyth SSSI ('unfavourable) runs north to south around 1 km east of the M42. The Sutton Park National Nature Reserve and SSSI ('unfavourable') is around 8.5km to north west of the junction.  The general area is characterised by grassland, urban and suburban land uses. The area falls within the Arden National Character Area (NCA) which comprises farmland and former wood-pasture. There are no national landscape designations within the area and the development the area is interspersed with urban and transport development. The area lies within the current Green Belt although it is within area with extensive existing development and transport infrastructure which may limit the impact on landscape.  The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There are few listed buildings with the area with four located in Water Orton and a number in Coleshill itself. Coleshill Manor located between the M6 and M42 and Gilson Hall are located in the undeveloped areas. Castle Bromwich Hall Grade II* Registered Park and Garden is situated around 3km to the west of Junction 4a of the M6 but it is built up in between. There is potential for a development scheme to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.  Overall, mixed minor positive and minor negative outcomes have been assessed against this objective, but there is uncertainty relating to the specific location chosen for development.  Mitigation  Specific proposals would mitigate impacts on these and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals would accord with NPPF approach to protection and enhancement of historic and natural environment.

GL Hearn Page 175 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary  • The specific location of development.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution. However, there may be opportunities to support investment in public transport provision in line with the sub-regional commuting patterns that these sites would be a part of. There are existing rail stations at Water Orton and Coleshill Parkway which could provide a transport hubs for sustainable solutions.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  Transport solutions should maximise existing provision of public transport as part of the sub-regional commuting patterns.  Assumptions  Employers would undertake business in accordance with pollution standards.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.

GL Hearn Page 176 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++	Likely Significant Outcomes  The development of this Areas of Search would help drive significant economic investment in the locality and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model in this Areas of Search is considered to help drive economic growth and investment at the strategic scale, enabling the delivery of significant and lasting investment in the West Midlands economy. This would help support self-containment within the HMA.  The location of the Area of Search already provides an existing critical mass of employment land around the M6 corridor and is strategically well located for the motorway (M42, M6 and M6 Toll) and rail network. The location of the Area of Search is considered to perform very well against this objective.  Overall, significant positive outcomes are assessed against this objective.  Mitigation  None.  Assumptions  The Area of Search would support a range of employment types, some of which would be key employers supporting a range of complementary employment opportunities, through (for example) the supply chain.  Uncertainties
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing?		Likely Significant Outcomes  The Area of Search is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location,

GL Hearn Page 177 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		Promote regeneration of deprived areas?	++	would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The development model would support opportunities for the delivery of employment land and in supporting access to the strategic employment available along the M6.
				The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, the Area of Search is considered to have major positive outcomes for this objective. <b>Mitigation</b>
				The integration of infrastructure delivery tied to specific development phasing,     Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Area of Search, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 178 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	++	Likely Significant Outcomes  The Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 179 of 302

Table 14: Around New Arley (New Town/Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  This Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required and opportunities to make use of brownfield may be limited due to the settlement geography. This broad location largely comprises Agricultural Land Classification (ALC) Grade 3 and Grade 2 land, indicating that the area benefits from some of the best and most valuable soils. Development on this higher value land would lead to its permanent loss.  The New Town/Settlement is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater. The construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise the limited areas of brownfield land. Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties There are uncertainties relating to the development location and particular land requirements within the Area of Search.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS?		Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development

GL Hearn Page 180 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
		Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	proposed in the development model.  The broad area has limited areas at the highest risk of flooding. These areas are concentrated around the River Bourne and Bourne Brook. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is the potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The Area of Search has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That specific development schemes would avoid areas of highest Flood Risk in the Area of Search.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The development model for this Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design

GL Hearn Page 181 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
				opportunities to build recharge stations for electric vehicles from the outset.  However, the area is largely remote from higher order settlements which may increase the levels commuting within the area. The opportunities for sustainable transport solutions to other areas is also limited.  Overall, mixed significant positive and major negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/	The extent to which sustainable transport minimise car use.  Likely Significant Outcomes  Development envisaged in the Area of Search would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. They would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  The broad location is situated in the vicinity of a main rail line, which could support growth, but there are no existing rail stations on the line within the area. The road network does not include strategic routes (motorways) or A roads and therefore significant investment would be required to connect the development to other areas. The area is also largely remote from existing higher order service areas.  Overall, mixed major positive outcomes (related to the development model) and significant negative outcomes (related to the location) have been assessed.

GL Hearn Page 182 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
				<ul> <li>Mitigation</li> <li>Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.</li> <li>Assumptions</li> <li>Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.</li> <li>Uncertainties</li> <li>The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.</li> <li>The extent to which sustainable transport helps reduce the use of the private car.</li> <li>The delivery of major transport infrastructure to support connectivity with higher level settlements.</li> </ul>
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Likely Significant Outcomes  Development in line with the New Town/Settlement model is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  There are statutory designated conservations assets within the broad Area of Search. These include Hoar Park Wood SSSI around 2km to the north west of Old Arley which is in a 'favourable' condition and Dafferns Wood LNR which lies adjacent to New Arley. Ensor Pool SAC is located around 6km to the east of New Arley and River Mease SAC around 25km to the north. There is also replanted ancient woodland to the west of Old Arley and BAP priority woodland habitat around Tipper's Hill and Filongley Hall.  The general area is characterised by grassland and arable land interspersed with woodland and urban land uses. The area falls within the north east of the Arden National Character Area (NCA). There is likely to be increased development on the NCA and

GL Hearn Page 183 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				greater pressure upon the existing infrastructure, particularly around Birmingham, Coventry and the main towns. There are no landscape designations within the area. The area is largely characterised by its rural and principally undeveloped nature, there could be significant change to the landscape in the location. The area lies within the current Green Belt.
				There are a number of listed buildings within the area with five Scheduled Monuments including Astley Castle moated site 1 km to the east of New Arley; two sites between 1.5 and 2 km to the south of New Arley; and two sites 4km to the west of Old Arley. Arbury Hall, a Grade II* Registered Park and Garden is located around 2km to the east of New Arley. Development in this location would have to pay regard to its setting.
				There are no designations which would preclude development coming forward in this location.
				Overall, there are considered to be a mix of major positive and significant negative outcomes for this Area of Search although some uncertainty exist in relation to these outcomes.
				Mitigation
				Specific proposals to bring forward development would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				<ul> <li>That development would comply with requirements for HRA and appropriate assessment in relation to Ensor Pool SAC and River Mease SAC.</li> <li>That specific development proposals for development of the Area of Search would accord with the NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>
				Uncertainties
				The design measures incorporated to mitigate impacts on historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant		Likely Significant Outcomes  The provision of development at the scale of a New Town/Settlement is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design

GL Hearn Page 184 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
		loading?	+/	of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  The Area of Search is isolated from higher order service centres and significant investment would be required to provide greater connectivity to these areas. Car based travel on existing surrounding roads would increase the pollution load form emissions in the area.  There are considered to be a mix of minor positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++/	Likely Significant Outcomes  The development of this Area of Search would drive significant economic investment in the locality and across the HMA.  The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support employment development as integral, thereby supporting lasting job opportunities and economic self-containment in the settlement. However, the Area of Search is relatively isolated from existing higher service areas of

GL Hearn Page 185 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Area of Search likely to:	AoS Score	Commentary
				Coventry, Nuneaton and Coleshill and the M6/M42 corridor where major employment areas exist. This has negative outcomes against this objective, as despite the inherent opportunities presented by the development model, there will be out commuting to access employment elsewhere.  Overall, a mix of major positive and major negative outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	Likely Significant Outcomes  Development envisages with the Area of Search is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The Area of Search is located in an area with no existing higher level service centres. The opportunities for focusing delivery on enhancing existing communities is therefore lessened with a more significant requirement to develop a sense of place.  Overall, major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.

GL Hearn Page 186 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the  Area of Search likely to:	AoS Score	Commentary
				Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Area of Search, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent	Provide a range of		Likely Significant Outcomes
	and affordable housing of the right quantity, type, tenure and affordability to meet local needs	opportunities for affordable housing across a range of tenures?	+++/?	The development model would support delivery of a range of housing types and tenures, including the provision of affordable housing in this Area of Search. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.
			*****	There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. This uncertainty is particular apparent in this location where significant transport infrastructure investment would be required to ensure delivery. A co-ordinated approach would be required to ensure delivery.
				Overall, significant positive outcomes have been assessed against this objective. However, there is some uncertainty.
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				The delivery of the full quantum of housing.

GL Hearn Page 187 of 302

Table 15: South West of Stratford-upon-Avon District (New Town/Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development envisaged in the Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. The land largely comprises ALC Grade 4 with some elements of Grade 3. Although not all of the area is of highest agricultural value there are certain areas of value that would be lost should development take place in this area. There are areas of brownfield land that could be utilised in bring forward a new settlement in this location.  Development envisaged at the Area of Search is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The development model is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land in the Area of Search. Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties  There are uncertainties relating to the development location and particular land requirements within the Area of Search.

GL Hearn Page 188 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development envisaged in the Area of Search.  There are areas of flood risk 2 and 3 related to the tributaries for River Alne in this Area of Search. There appear to be sufficient opportunities to avoid these areas within specific development proposals and the ability to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The Area of Search has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That specific development schemes would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The development model for this Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in

GL Hearn Page 189 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.  However, the area is largely remote from higher order settlements which may increase the levels commuting within the area. The opportunities for sustainable transport solutions to other areas is also limited.  Overall, mixed significant positive outcomes (related to the development model) and significant negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				<ul> <li>Uncertainties</li> <li>The extent to which sustainable transport minimise car use.</li> </ul>
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/	Likely Significant Outcomes  The Area of Search would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. They would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  The location is largely remote from higher order settlements. The area does not rail have connectivity and is not on the strategic road network. There are likely to be significant negative outcomes related to the location of the Area of Search.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass

GL Hearn Page 190 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and would promote broader interconnectivity using the rail network (in locations close to rail stations). However, it is recognised that CO2 emissions from transport would increase in line with the quantum of growth.  Overall, mixed major positive outcomes (related to the model) and significant negative outcomes have been assessed, although there is some uncertainty related to the delivery
				of the necessary transport infrastructure to support the scale of development envisaged.  Mitigation
				<ul> <li>Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.</li> </ul>
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				<ul> <li>The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.</li> <li>The extent to which sustainable transport helps reduce the use of the private car.</li> </ul>
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and Geodiversity	and restore the quality of landscape, townscape, biodiversity and geodiversity	restore the special qualities of natural and cultural resources?	++/	Development in line with the New Town/Settlement model is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.

GL Hearn Page 191 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				The significance of the negative effects on biodiversity depends on whether national or internationally designated conservation features would be affected by the proposals.  There are few statutory designated conservations assets within the broader area. Bredon Hill SAC lies around 20km to the south west of the airfield. Welford Field SSSI (in 'favourable' condition) lies around 5km to the north west of the airfield, and Ailstone Old Gravel Pit SSSI (in 'favourable' condition) lies around 5km to the east. There some priority habitats in the area which comprise grassland and woodland and the area is important for farmland birds.
				The general area is characterised by grassland and arable land interspersed with woodland. The area falls within the east area of the Severn and Avon Vales National Character Area (NCA) which is made up of lower valleys of the rivers Severn and Avon dominate this low-lying open agricultural vale landscape made up of distinct and contrasting vales.
				There are no national landscape designations within the area although it is largely open countryside with few dispersed existing areas of development. The area would experience major change through new development at the scale envisaged. The area lies outside the current Green Belt.
				The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting. There are no historic assets on the air field itself but there are range of listed building within Long Marston village and others in the surrounding rural area. There are two registered parks and gardens to the north east at Alscot Park and Clifford Manor. Any scheme in this would location would have to have regard to their setting.
				Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.
				Mitigation
				Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				That development would comply with requirements for HRA and appropriate

GL Hearn Page 192 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				assessment, with a particular focus on Bredon Hill SAC.     That specific development proposals for development of the New Town/Settlement would accord with the NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties     The specific location of development in relation to designated nature conservation sites an historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged in the Area of Search is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills	Provide a significant source of employment which contributes to a high degree of self-		Likely Significant Outcomes  The development of this Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the

GL Hearn Page 193 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	development	containment?	+++/	accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  Although there would be integral significant positive outcomes, the Area of Search is remote from major employment areas so would not have potential to contribute towards a critical mass of employment locations in the area. There are therefore considered to be major negative effects as well as the positive effects related to the development model.  Overall, mixed significant positive outcomes (from the development model) and minor negative effects have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++/?	Likely Significant Outcomes  Development envisages with the Area of Search is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The Area of Search is located in an area with no existing higher level service centres. The

GL Hearn Page 194 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				opportunities for focusing delivery on enhancing existing communities is therefore lessened with a more significant requirement to develop a sense of place. Significant investment would be required to provide the necessary transport infrastructure to make the location viable, which may provide further uncertainty in relation to design standards and the delivery of facilities and services.  Overall, major positive outcomes for this objective.
				Mitigation The integration of infrastructure delivery tied to specific development phasing.  Assumptions That specific design will seek opportunities to design out crime. Uncertainties Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Area of Search, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++/?	Likely Significant Outcomes  The development model would support delivery of a range of housing types and tenures, including the provision of affordable housing in this Area of Search. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. This uncertainty is particular apparent in this location where significant transport infrastructure investment would be required to ensure delivery. A co-ordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective. However, there is some uncertainty.

GL Hearn Page 195 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation
				None.
				Assumptions
				None.
				Uncertainties
				The delivery of the full quantum of housing.

GL Hearn Page 196 of 302

Table 16: Around Wellsbourne (New Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development envisaged in the Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. The land in this area is largely ALC Grade 5, reflecting that it is not the best and most valuable land. There are also some brownfield land in the area related to the airfield use.  Development envisaged in the Area of Search is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The development model is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land when development around existing settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties  There are uncertainties relating to the specific delivery of the development.
Climate Change	Contribute to climate change	Make a substantial contribution through		Likely Significant Outcomes

GL Hearn Page 197 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	mitigation	measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the New Town/Settlement.  The potential for of SuDS is also likely be significant. The broad area has areas of flood zones 2 and 3 linked to the Rivers Avon and Dene. However, these could be avoided through the location of development.  The Area of Search model has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That specific development locations would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The New Town/Settlement development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation.  The area is largely remote from higher order settlements which may affect the ability to provide sustainable connectivity to other locations.  Overall, mixed significant positive and major negative outcomes have been assessed against this objective.  Mitigation

GL Hearn Page 198 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.</li> <li>Assumptions</li> <li>Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.</li> <li>Uncertainties</li> <li>The extent to which sustainable transport minimise car use.</li> </ul>
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions? Reduce the need for use of unsustainable forms of travel?	++/	Development envisaged in the Area of Search would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. They would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  The location is largely remote from higher order settlements and major areas of employment. The area does not benefit from rail connectivity and only benefits from the A429 which links to the M40. There are likely to be significant negative outcomes related to the location of the Area of Search.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and would promote broader interconnectivity using the rail network (in locations close to rail stations). However, it is recognised that CO2 emissions from transport would increase in line with the quantum of growth.  Overall, mixed major positive outcomes (related to the model) and significant negative outcomes have been assessed, although there is some uncertainty related to the delivery of the necessary transport infrastructure to support the scale of development envisaged.

GL Hearn Page 199 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.  The extent to which sustainable transport helps reduce the use of the private car.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Development in line with the New Town/Settlement model is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  There are few statutory designated conservations assets within the broader area. Bredon Hill SAC lies around 30km to the south west of the airfield. Loxley Church Meadow SSSI (in 'favourable' condition) lies around 1 km to the south of the airfield. There some priority habitats in the area which consist of deciduous woodland to the south and woodland parkland to the north of the airfield. The area is important for farmland birds.  The general area is characterised by grassland and arable land interspersed with woodland. The areas falls at the intersection of two National Character Areas (NCA): Severn and Avon Vales and Dunsmore and Feldon. The Severn and Avon Vales NCA is made up of lower valleys of the rivers Severn and Avon dominate this low-lying open

GL Hearn Page 200 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				agricultural vale landscape made up of distinct and contrasting vales.  The Dunsmore and Feldon NCA is predominantly a rural, agricultural landscape, crossed by numerous small rivers and tributaries and varying between a more open character in the Feldon area and a wooded character in Dunsmore.  There are no national landscape designations within the area and the area lies outside the current Green Belt.
				The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There are no historic assets on the air field itself but there are range of listed building within Wellesbourne, Charlecote (including Charlcote Park which is also a Registered Park and Garden) and Hampton Lucy. There are three Scheduled Monuments north of the airfield. There is potential for development schemes to incorporate design solutions to mitigate effects on these assets and potentially enhance their setting.
				Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.
				Mitigation
				Specific proposals to bring forward the Area of Search would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				<ul> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with the NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>
				Uncertainties
				The specific location of development in relation to designated nature conservation sites an historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant		Likely Significant Outcomes  The provision of development at the scale of envisaged in the Area of Search is likely to support opportunities to manage impacts on air quality through the implementation of

GL Hearn Page 201 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		loading?	++/	sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++/	Likely Significant Outcomes  The development of this Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time. The development model would also support employment development as integral, thereby supporting lasting job opportunities and economic self-containment in the settlement.  Although there would be integral significant positive outcomes, the Area of Search is largely remote from major employment areas so would not have potential to contribute towards a critical mass of employment locations in the area. There are considered to be minor negative effects as well as the positive effects related to the development model.  Overall, mixed major positive outcomes (from the development model) and minor negative

GL Hearn Page 202 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				effects have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++/?	Likely Significant Outcomes  Development envisages with the Area of Search is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The Area of Search is located in an area with no existing higher level service centres. The opportunities for focusing delivery on enhancing existing communities is therefore lessened with a more significant requirement to develop a sense of place. Significant
				investment would be required to provide the necessary transport infrastructure to make the location viable, which may provide further uncertainty in relation to design standards and the delivery of facilities and services.  Overall, major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  That specific design will seek opportunities to design out crime.

GL Hearn Page 203 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Area of Search, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++/?	Likely Significant Outcomes  The development model would support delivery of a range of housing types and tenures, including the provision of affordable housing in this Area of Search. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. This uncertainty is particular apparent in this location where significant transport infrastructure investment would be required to ensure delivery. A co-ordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective. However, there is some uncertainty.  Mitigation  None.  Assumptions  None.  Uncertainties  The delivery of the full quantum of housing.

GL Hearn Page 204 of 302

Table 17: South of Stratford-upon-Avon town (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  Development this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from the development model. The area largely comprises Grade 2 and Grade 3 agricultural land. Development in this location would therefore involve the loss of this irreplaceable resource.  The development model is likely to ensure capacity at these locations to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater. Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  The potential for brownfield land on the edge of Stratford should be maximised. Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management. Uncertainties  There are uncertainties relating to the specific delivery in this location.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and		Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such

GL Hearn Page 205 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++/?	as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development proposed in this location at the higher end of the quantum range. The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  The area has extensive flood plan related to the River Avon. This is largely where it flows through Stratford-upon-Avon itself. The River Stour also has flood zone 3 although this is more concentrated along the river itself than the Avon. There is sufficient land to the south of Stratford-upon-Avon that would enable these areas to be avoided.  The Urban Extension development model has been assessed as being likely to have a major positive outcome against this objective although some uncertainty remains.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid areas of highest Flood Risk associated with the River Avon and River Stour.  Uncertainties
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions

GL Hearn Page 206 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	that would help mitigate the increase in private car based travel, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/	Likely Significant Outcomes  The Area of Search would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities.  The development model would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.  The major settlements in this area include Stratford-upon-Avon itself, Leamington and Warwick to the north east and Banbury, via the A442, to the south east. Although these

GL Hearn Page 207 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				settlements provide some opportunities for employment, they are not major employment areas in themselves, with greater opportunities located in the south of Birmingham via the M40/M42. Stratford-upon-Avon benefits from a rail station but joining the main motorway network via junction 15 of the M40 would require travel through Stratford via the A39 or A46 or to the south via the A429. The location does not promote accessibility of higher level employment areas.
				Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and Geodiversity	and restore the quality of landscape, townscape, biodiversity and geodiversity	restore the special qualities of natural and cultural resources?	+/-	Development in this Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.
				There are few nature conservation sites within the broad area. Ailstone Old Gravel Pit SSSI (in 'favourable' condition) lies around 3km to the south of Stratford-upon-Avon, whilst Racecourse Meadow SSSI lies on the South western edge of Stratford-upon-Avon itself.

GL Hearn Page 208 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				This is in unfavourable condition. Knavellhill Wood SSSI lies around 6km to the south east of Stratford-upon-Avon and is in an 'unfavourable but recovering' condition. There are no designated European sites within the broad location.
				The general area is characterised by grassland, woodland and arable land with some orchards. The areas falls at the intersection of two National Character Areas (NCA): Severn and Avon Vales and Dunsmore and Feldon. The Severn and Avon Vales NCA is made up of lower valleys of the rivers Severn and Avon dominate this low-lying open agricultural vale landscape made up of distinct and contrasting vales. The Dunsmore and Feldon NCA is predominantly a rural, agricultural landscape, crossed by numerous small rivers and tributaries and varying between a more open character in the Feldon area and a wooded character in Dunsmore.
				The area is not within the current Green Belt however, there may be impacts on the setting of Stratford-upon-Avon from the south and the rural nature of this location.
				The impact on historic assets is largely related the location of development and the historic assets that may be affected. There is a significant number of listed buildings (including Grade I) within Stratford-upon-Avon itself, whilst there are a range of listed buildings in Clifford Chambers village to the south. There are few listed buildings assets dispersed elsewhere in the broad location. Clopton Bridge in Stratford is a Scheduled Monument whilst Clifford Manor (around 1km) and Alscot Park (2km) to the south of Stratford-upon-Avon and Charlcote Park (3km to the east) are Registered Parks and Gardens. Development in this location would have to have regard to the setting of these assets although there is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the specific location on an urban extension in this location and specific design approach.
				Mitigation
				Specific proposals would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				That development would comply with requirements for HRA and appropriate

GL Hearn Page 209 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary  assessment.
				That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The specific location of development in relation to the designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  None.  Assumptions  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  The development of Urban Extensions in this Area of Search would drive significant economic investment in this location. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs

GL Hearn Page 210 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/	during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  The major settlements in this area include Stratford-upon-Avon itself, Leamington and Warwick to the north east and Banbury, via the A442, to the south east. Although these settlements provide some opportunities for employment, they are not major employment areas in themselves, with greater opportunities located in the south of Birmingham via the M40/M42. Stratford-upon-Avon benefits from a rail station but joining the main motorway network via junction 15 of the M40 would require travel through Stratford via the A39 or A46 or to the south via the A429. The location does not promote accessibility of higher level employment areas.  Overall, mixed major positive and negative outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  None.  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	Likely Significant Outcomes  Development in this Area of Search is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location,

GL Hearn Page 211 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).
				The development model would support opportunities for the delivery of employment land supporting access to employment locally.
				The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, major positive outcomes have been assessed for this objective.
				Mitigation
				The integration of infrastructure delivery tied to specific development phasing,
				Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 212 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	++	Likely Significant Outcomes  The Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 213 of 302

Table 18: South east of Redditch (Urban Extension)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Development in this Area of Search is likely to involve the use of extensive areas of green field land (even when developed around existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required. This is assessed as a major negative outcome for the Area of Search. This broad location largely comprises Grade 3 agricultural land, indicating that the area benefits from good quality agricultural capability. Development on this higher value land would lead to its permanent loss. Opportunities to make use of brownfield may be limited due to the settlement geography.  The Urban Extension development model is likely to ensure capacity at these locations to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater. Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Development should maximise the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions
				That development scale will ensure that opportunities are maximised for waste reduction and water resource management.
				Uncertainties
				There are uncertainties relating to the delivery of the development (use of previously developed land) in relation to specific localities.

GL Hearn Page 214 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development proposed in the Area of Search at the higher end of the quantum range.  The potential for SuDS is also likely be significant. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely. This Area of Search has limited areas of land in flood zones 2 and 3 with these areas largely concentrated around the River Arrow and its tributaries. However, these areas could be avoided through the identification of specific development locations.  The Urban Extension development model has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid areas of highest Flood Risk associated with the River Arrow.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The development of this Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.

GL Hearn Page 215 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  With regards to road travel emissions, Redditch itself contains industrial areas west and east of the River Arrow corridor and in the north east of the town. Connectivity to other major employment areas would be expected to largely be via the A435 and A441 which connect Redditch to the M42. Redditch train station, which provides connecting services to Birmingham is located in the north east of the town. There are some opportunities to ensure sustainable transport connectivity to these broader commuting locations  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?		Likely Significant Outcomes  Development in this Areas of Search would provide integrated and comprehensive development with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities.  A level of employment development would also be supported which could support some self-containment although there would be out commuting to access higher level service provision and employment areas. The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services

GL Hearn Page 216 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/	and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.
				Redditch itself contains industrial areas west and east of the River Arrow corridor and in the north east of the town. Connectivity to other major employment areas would be expected to largely be via the A435 and A441 which connect Redditch to the M42. Redditch train station, which provides connecting services to Birmingham, is located in the north east of the town.
				Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision in this location.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and Geodiversity	and restore the quality of landscape, townscape, biodiversity and geodiversity	restore the special qualities of natural and cultural resources?	+/-	Development in this Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.

GL Hearn Page 217 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				The area largely comprises grassland and arable land with some rough grazing and woodland. The area falls within the Arden National Character Area (NCA) which comprises farmland and former wood-pasture. There is likely to be increased development on the NCA and greater pressure upon the existing infrastructure, particularly around Birmingham, Coventry and the main towns. There are no national landscape designations within the area but it is characterised by a rural outlook with Redditch largely defined by the A435. The area lies within the current Green Belt but development here would support expansion of an existing large settlement in the Green Belt. There would be some landscape impacts.
				Ipsley Alders Marsh SSSI ('unfavourable but recovering') and Rough Hill and Wirehll Woods ('favourable' condition) are located within the built up area of Redditch. Ullenhall Meadows SSSI ('unfavourable but recovering') is located around 3km to the east of Redditch and Bannams Wood SSSI (in a 'favourable' condition) is located around 4km to the south east of the town. Ancient woodland is also located around 5km to the south east. Bredon Hill SAC is located around 22km to the south.
				There are concentrations of listed buildings in Redditch and Studley and a number of listed buildings are dispersed across the rural area. There are also three Scheduled Monuments between 3km and 5km from the south east of Redditch. There are no Registered Parks or Gardens.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the specific location of the development.
				Mitigation     Specific proposals would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions     That development would comply with requirements for HRA and appropriate assessment.     That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties

GL Hearn Page 218 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	The specific location of development proposals in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  Development of effective green infrastructure and water management capability.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  Development within this Area of search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support some employment development as part of the

GL Hearn Page 219 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++	extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  Redditch itself contains large industrial areas west and east of the River Arrow corridor and in the north east of the town. Connectivity to other major employment areas would be expected to be largely via the A435 and A441 which connect Redditch to the M42.  Redditch train station, which provides connecting services to Birmingham, is located in the north east of the town.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	Likely Significant Outcomes  The Area of Search considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development

GL Hearn Page 220 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.  There may be some uncertainties related to the delivery of infrastructure in line with the
				phasing of housing and quantum of development.  Overall, the Urban Extension model is considered to have major positive outcomes for this
				objective.  Mitigation
				The integration of infrastructure delivery tied to specific development phasing,
				Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent	Provide a range of		Likely Significant Outcomes
	and affordable housing of the right quantity, type, tenure and affordability to meet local needs	opportunities for affordable housing across a range of tenures?	++	The Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.
			**	There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. However, the location is close to an existing higher level service centre which may provide additional benefits for future residents. A co-ordinated approach would be required to ensure delivery.
				Overall, significant positive outcomes have been assessed against this objective.  Mitigation

GL Hearn Page 221 of 302

SEAT	Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
					None.  Assumptions
					None.
					Uncertainties
					None.

GL Hearn Page 222 of 302

Table 19: Around Balsall Common (New Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The New Town/Settlement is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This broad location largely comprises Grade 3 and Grade 4 agricultural land, indicating that the area potentially benefits from some of the best and most versatile agricultural land although some of it has less quality. Development on this higher value land would lead to its permanent loss. There may be opportunities to make use of brownfield land redevelopment opportunities within the Area of Search.  Delivery within the Area of Search is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater. The construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land when development around existing settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties

GL Hearn Page 223 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary  • There are uncertainties relating to the delivery of the development in the Area of
				Search.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the Area of Search.  There two main areas of highest flood risk in this broad location. They are concentrated around the River Blythe and its tributaries. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The Area of Search has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  • Development should ensure that opportunities for SuDS are maximised.  Assumptions
				<ul> <li>That specific development schemes would avoid areas of highest Flood Risk.</li> <li>Uncertainties</li> <li>None.</li> </ul>
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  Development within the Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions

GL Hearn Page 224 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.
				Overall, mixed significant positive and major negative outcomes have been assessed against this objective.
				Mitigation
				<ul> <li>Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.</li> </ul>
				Assumptions
				Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.
				Uncertainties
				The extent to which sustainable transport minimise car use.
Transport,	Promote energy	Create a significant and		Likely Significant Outcomes
connectivity and CO2 Emissions	efficiency and use of sustainable modes of transport and energy efficiency	enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of	+++/	New Towns/Settlements would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. They would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.
		travel?	*****	The broad location is situated in the vicinity of a main rail line, which could support growth, and there are two existing rail stations on the line within the area (Hampton in Arden and Balsall Common). The A452 (duelled through the area) provides connectivity to the M42 to the north west and key employment areas around Birmingham Airport and NEC.

GL Hearn Page 225 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Overall, mixed significant positive and major negative outcomes have been assessed.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	The extent to which sustainable transport helps reduce the use of the private car.  Likely Significant Outcomes  Development envisaged at the Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  There are statutory designated conservations assets within the broad area. These include Berkswell Marsh SSSI around 2.5km to the north west of Balsall Common and the River Blythe SSSI which bisects the area from north to south. Both of these are in an 'unfavourable' condition. Lavender Hall Park LNR lies adjacent to Balsall Common. There are some priority habitat areas identified for grazing marsh land, deciduous marshland and wood pasture/parkland around Berkswell. There are no SACs, SPAs or Ramsar sites within the area.  The general area is characterised by grassland and arable land interspersed with woodland. The area falls within the east area of the Arden National Character Area (NCA)

GL Hearn Page 226 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				which comprises farmland and former wood-pasture lying. There is likely to be increased development on the NCA and greater pressure upon the existing infrastructure, particularly around Birmingham, Coventry and the main towns. There are no national landscape designations within the area but the area does form part of the largely development gap between Birmingham and Coventry and its loss would impact on the broader landscape quality. The area lies within the current Green Belt.
				There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting. There are range of listed building within Hampton in Arden and two Scheduled Monuments and a number of listed buildings and a Scheduled Monument in Barston. There a number of other historic assets dispersed within the rural area including Packhorse Bridge Scheduled Monument and listed building. Packington Hall is large Grade II* Registered Park and Garden located around 4.5 km north west of Balsall Common. Development in this location would have to pay regard to its setting.
				Overall, there are considered to be a mix of major positive and significant negative outcomes although some uncertainty exist in relation to these outcomes.
				Mitigation
				Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				<ul> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with the NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>
				Uncertainties
				The design measures incorporated to mitigate impacts on historic assets, including the Packington Hall registered Park and Garden.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant		Likely Significant Outcomes  The provision of development in this Area of Search is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport

GL Hearn Page 227 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		loading?	++/	measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities
				to ensure water management and storage onsite to reduce the potential for pollution.  The Area of Search is located close to major employment areas around Birmingham Airport and NEC along the M42. There are also two existing rail stations within the area which could provide connectivity.
				There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation
				None.  Assumptions
				<ul> <li>None.</li> <li>Uncertainties</li> <li>Specific design measures incorporated to manage air quality impacts from road</li> </ul>
				travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  Development in this Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.
			+++	The development model would also support employment development as integral, thereby supporting lasting job opportunities and economic self-containment in the settlement.  This Area of Search is located close to the existing major areas of employment located around Birmingham Airport and the NEC and existing higher order settlement of Solihull. There are potential positive outcomes from this geographic location as the area could

GL Hearn Page 228 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				contribute to the existing critical mass of employment along the M42.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  Delivery envisaged in the Area of Search is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  Overall, significant positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 229 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++	Development envisaged in the Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. A co-ordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  The delivery of the full quantum of housing.

GL Hearn Page 230 of 302

Table 20: South of Dudley (Urban Extension)

To Dev	ecision Making Criteria o what extent is the evelopment Model kely to:	AoS Score	Commentary
resources resources land efficiently efficiently con	linimise use of greenfield ind, limit water consumption and the roduction of waste?	+	Development in this Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required and apparent limited opportunities to make use of brownfield land. The land is mainly ALC Grade 3. Finer grain analysis would be required to ascertain the land quality but there is potential for the loss the best and most versatile land. This is assessed as a major negative outcome from the development model.  Development in the Area of Search is likely to ensure capacity at these locations to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Development should maximise the potential for brownfield land on the edge of settlements, although there may be limited opportunities in this location.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties

GL Hearn Page 231 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary  in the Area of Search.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development proposed in this Area of Search at the higher end of the quantum range.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. There is a very limited extent of flood zone 2 and 3 around the Lutley Gutter which runs along the north western edge of Hasbury.  The Area of Search has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid the limited extent of land at the highest risk of flooding in the Area of Search.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions

GL Hearn Page 232 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	that would help mitigate the increase in private car based travel, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  The location of the Area of Search is such that it may support sustainable transport (including walking and cycling) to existing local areas of employment in Halesown, Cradley Heath, and Lye. Cradley Heath, Hagley, Stourbridge and Lye all benefit from rail stations which could provide connectivity to Birmingham and beyond.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/	Likely Significant Outcomes  Development in the Area of Search would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities.  The development model would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.  The comprehensive development would enable delivery of cycleways and footways to

GL Hearn Page 233 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.
				The location of the Area of Search is such that it may support sustainable transport (including walking and cycling) to local areas of employment in Halesown, Cradley Heath, and Lye. However, connectivity to major areas of employment is reliant on Hagley Road/Manor Way which connect to M5. Cradley Heath, Hagley, Stourbridge and Lye do, however, benefit from rail stations which may help to delivery of integrated and sustainable public transport solutions.
				Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision.
				Mitigation
				Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.
				Assumptions
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.
				Uncertainties
				The delivery of infrastructure to support the quantum of development envisaged.
Historic	Protect, enhance	Protect, enhance and		Likely Significant Outcomes
Environment, Landscape, Biodiversity and Geodiversity	and restore the quality of landscape, townscape, biodiversity and geodiversity	restore the special qualities of natural and cultural resources?	+/-	Development within the Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and

GL Hearn Page 234 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the	AoS Score	Commentary
		Development Model likely to:		
				disruption.
				There are few designated nature conservation sites within the Area of Search. Penorchard and Spring Farm Pastures SSSI (in 'favourable' condition) lies around 1 km south of Hagley Road. Fens Pools SAC and SSSI lies around 5km to the north of the site.
				The area is characterised by grassland and arable land and appears largely as countryside within the envelope of urban development north and east. The area falls within the Arden National Character Area (NCA) which comprises farmland and former wood-pasture. There is likely to be increased development on the NCA and greater pressure upon the existing infrastructure, particularly around Birmingham, Coventry and the main towns. There are no national landscape designations within the area. The area lies within the current Green Belt.
				There are a few listed buildings within the Area of Search, mainly focused on the small development of Lutley. Hagley Hall is a Grade I Registered Park and Garden which is located either side of Hagley Road to the west of the Area of Search. Wychbury Ring Scheduled Monument is located to the immediate north of Hagley Hall. Development would have to regard to the setting of these assets. At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.
				Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the specific location of the development.
				Mitigation
				Specific proposals to bring forward development in the Area of Search would mitigate impacts on designated assets and support enhancement where possible.
				Assumptions
				<ul> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.</li> </ul>
				Uncertainties
				The specific location of development in relation to designated nature conservation

GL Hearn Page 235 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  Development of effective green infrastructure and water management capability.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  The development of Urban Extensions would drive significant economic investment in the localities where they are developed and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.

GL Hearn Page 236 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	The development model would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment. The Area of Search is located close to some existing employment areas, which may be complemented and supported by economic development here. However major employment areas are not primarily located in close proximity to this area.  Overall, therefore, a mix of major positive and minor negative outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	++	Likely Significant Outcomes  The Area of Search is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of onsite medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At

GL Hearn Page 237 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				the higher range, the inclusion of sporting facilities would also be supported in the development model.  There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.  Overall, major positive outcomes have been assessed for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing,
				Assumptions     That specific design will seek opportunities to design out crime.  Uncertainties     Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	++	Likely Significant Outcomes  Development in the Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing in this Area of Search. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing into one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions

GL Hearn Page 238 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>None.</li> <li>Uncertainties</li> <li>None.</li> </ul>

GL Hearn Page 239 of 302

Table 21: South of Birmingham (New Town/Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes This Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required and opportunities to make use of brownfield may be limited due to the settlement geography. This broad location largely comprises Grade 3 agricultural land, indicating that the area benefits from good quality agricultural capability. Development on this higher value land would lead to its permanent loss.  The development envisaged is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater. The construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Area of Search is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land. Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties There are uncertainties relating to the delivery location, with particular land requirements to develop within the Area of Search.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and		Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined

GL Hearn Page 240 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	heat and power are likely to be significant for the scale and concentration of development proposed in the Area of Search.  There are areas of flood zones 2 and 3 related to the tributaries of the River Alne in this Area of Search. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The Area of Search has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That specific development schemes would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The development model for this Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of

GL Hearn Page 241 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.  However, the area is largely remote from higher order settlements which may increase the levels of commuting within the area. The opportunities for sustainable transport solutions to other areas is also limited.  Overall, mixed significant positive outcomes (related to the development model) and significant negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The extent to which sustainable transport minimise car use.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	+++/	Likely Significant Outcomes  Development in this Area of Search would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. It would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  The broad location is situated in the vicinity of a main rail line, which could support growth, but there are no existing rail stations on the line within the area with the nearest station north of the M42 at Earlswood. The area is close to M42 Junction 3A where connection is made to the M40. These motorway routes provide good connectivity with the major employment areas and higher level settlements, even though the area is not closely related to existing areas geographically.

GL Hearn Page 242 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Overall, mixed significant positive and major negative outcomes have been assessed.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.  The extent to which sustainable transport helps reduce the use of the private car.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Likely Significant Outcomes  Development in the Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  There are statutory designated conservations assets within the broad area. These include Winmill Naps Wood SSSI around 1km to the west of Wood End, Clowes Wood and New Fallings Coppice SSSI around 2km to north of Wood End; both of which are in favourable condition. The River Blythe SSSI, in an 'unfavourable but recovering' condition is located around 1km to the north of Wood End. Merriman's Hill Farm Meadows SSSI, which is about 4km to the south east of Tamworth-in-Arden is in favourable condition. There are some priority habitat areas identified for deciduous woodland and wood pasture/parkland

GL Hearn Page 243 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				around Umerslade. There are no SACs, SPAs or Ramsar sites within the area.  The general area is characterised by grassland, arable land interspersed with woodland and suburban development. The area falls within the southern area of the Arden National Character Area (NCA) which comprises farmland and former wood-pasture lying. There is likely to be increased development on the NCA and greater pressure upon the existing infrastructure, particularly around Birmingham, Coventry and the main towns. There are no national landscape designations within the area. The character of the area would experience significant change from development of a new settlement. The area lies with the current Green Belt.  There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting. There are range of listed building within the village of Tamworth-in-Arden, Henley-in-Arden and Wootton Wawen and a number of other listed buildings dispersed within the rural area. There are a number
				of Scheduled Monuments in the area including Beaudesert motte and bailey castle in Henley-in-Arden.  Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.
				Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.  Assumptions
				That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals would accord with the NPPF approach to protection and enhancement of historic and natural environment.
				Uncertainties     The specific location of development in the Area of Search in relation to designated nature conservation sites and historic assets.

GL Hearn Page 244 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development in the Area of Search is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  The Area of Search is located away from major employment areas around Birmingham Airport, NEC and Solihull geographically but is connected via the existing motorway network. There is also an existing rail line within the area which could be utilised with infrastructure investment.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?		Likely Significant Outcomes  Development within the Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support integral employment development as integral,

GL Hearn Page 245 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			+++	thereby supporting lasting job opportunities and economic self-containment in the settlement.  The Area of Search is located in close proximity to the motorway network, enabling accessibility of major employment areas in the wider area such as Monkspath Business Park and Blythe Valley Park and areas around the NEC and Birmingham Airport along the M42.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  Development envisaged in the Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions

GL Hearn Page 246 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul><li>Uncertainties</li><li>None.</li></ul>
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+++	Development envisaged in the Area of search is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  Overall, major positive outcomes have been assessed for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing.  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 247 of 302

Table 22: South of Birmingham Airport & NEC (Employment led)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The Area of Search model is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This is assessed as a major negative outcome. The area largely contains ALC Grade 3, reflecting that it contains some higher quality agricultural land.  The Area of Search is likely to have capacity to ensure sustainable waste and water management including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The development model is therefore considered to have mixed minor positive and major negative outcomes in relation to this objective.  Mitigation  Opportunities to re-use brownfield land should be maximised.  Assumptions  That development will ensure that opportunities are maximised for waste and water resources.  Uncertainties  There are uncertainties relating to the delivery of the development in relation to specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS?		Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development proposed in the Urban Extension at the higher end of the

GL Hearn Page 248 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	quantum range.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. The Area of Search has an area of flood zone 2 and 3 within the area of Birmingham International Airport itself but the area south of the A45 is largely free of the highest flood risk zones.  The Area of Search has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	++/-	Likely Significant Outcomes  The development model for this Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, thereby supporting modal shifts in transportation. The existing rail links at Birmingham International Station could provide a hub for development of integrated transport solutions in this Area of Search. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.

GL Hearn Page 249 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation  Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The quantum of development in the Area of Search.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?		Likely Significant Outcomes  The Area of Search would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities. The development model would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.
			++/-	The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions which could be linked to existing infrastructure supporting the broad area, including Birmingham International Rail station.  The location of the Area of Search already provides an existing critical mass of employment land around Birmingham International Airport and the NEC and is strategically well located for the motorway (M42 and M6) and rail network with a main station providing connectivity on the West coast mainline to Birmingham, North West, Scotland and London. Future residents would be well placed to access these areas in addition to employment development as part of the urban extension. However, the area

GL Hearn Page 250 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				would draw more commuters in, thereby exacerbating existing patterns of private car based transport in the area.  Overall, a mix of major positive and minor negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  Development envisaged at this Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  There are few statutory designated conservations assets within the broader area. Bickenhill Meadows SSSI (in 'unfavourable' condition) lies around 2.5 km to the south of Birmingham International Airport. There some priority habitats in the area including a large area of lowland meadows just west of the B4438.  The general area is characterised by grassland and arable land interspersed with woodland. The area falls within the Arden National Character Area (NCA) which

GL Hearn Page 251 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				comprises farmland and former wood-pasture. There are no national landscape designations within the area and the development edge largely reflects urban environment. The area lies within the current Green Belt.  The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There are few listed buildings with the area with two in the village of Bickenhill. Packington Hall Grade II* Registered Park and Garden is situated around 2.5km to the east of Junction 6 of the M42. There is potential for a development scheme to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the specific location of the development in the Area of Search, although some broader landscape impacts may be lessened by containing development within the route of the M42.  Mitigation  Specific proposals to bring forward this Area of Search would mitigate impacts on designated assets and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The specific location of development within the Area of Search.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?		Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.

GL Hearn Page 252 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/	A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++	Likely Significant Outcomes  The development of this Areas of Search would help drive significant economic investment in the locality and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  The location of the Area of Search already provides an existing critical mass of employment land around Birmingham Airport and the NEC and is strategically well located for the motorway (M42 and M6) and rail network. The location of the Area of Search is considered to perform well against this objective with the potential for development complementary employment development as part of any scheme.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation

GL Hearn Page 253 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Communities.	Encourage the	Provide extensive and		<ul> <li>None.</li> <li>None.</li> <li>Uncertainties</li> <li>None.</li> <li>Likely Significant Outcomes</li> </ul>
Healthy Lifestyles and Equality	creation of high quality and diverse environments that promote a sense of place	varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++/?	This Area of Search is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of onsite medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within this location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.  The area would be close to Birmingham International Airport. This may provide a number of negative health impacts (such as noise and vibration, and air quality) which would require further investigation. Although there are positive outcomes in line with the development model expected, there may well be negative outcomes although this is uncertain at this time.  Overall, the Area of Search is considered to have major positive outcomes for this

GL Hearn Page 254 of 302

SEA Theme Objectiv	To what extent is the Development Model likely to:	AoS Score	Commentary
Housing Provide and affo housing right quatype, ter affordab meet loc	rdable opportunities for affordable housing across a range of tenures?	++	objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing, Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Area of Search, and the lead in times and build out rates for the scale of provision envisaged.  Likely Significant Outcomes  The Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 255 of 302

Table 23: Between Birmingham and Bromsgrove/Redditch (New Town/Settlement)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  This Area of Search is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required and opportunities to make use of brownfield may be limited due to the settlement geography. This broad location comprises of large areas og Grade 3 agricultural land, indicating that the area benefits from good quality agricultural capability. Development on this higher value land would lead to its permanent loss.  The development envisaged is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater. The construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.
				The Area of Search is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.
				Mitigation
				<ul> <li>Opportunities should be sought to maximise brownfield land.</li> <li>Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.</li> </ul>
				Assumptions
				That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.
				Uncertainties
				There are uncertainties relating to the delivery location, with particular land requirements to develop within the Area of Search.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating		Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat and power are likely to be significant for the scale and concentration of development proposed in the Area of Search.

GL Hearn Page 256 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
		development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	There are limited areas of flood zones 2 and 3 related to a lake at Hewell Park, and Batchley Brook in this Area of Search. There appear to be sufficient opportunities to avoid these areas within specific development proposals and there is potential to support enhancements to flood protection where required. Significant green infrastructure development could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.  The Area of Search has been assessed as being likely to have a significant positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That specific development schemes would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	+++/	Likely Significant Outcomes  The development model for this Area of Search is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby supporting/sustaining modal shifts in transportation and there would be opportunities to increase use of existing sustainable modes of transport e.g. rail stations in Bromsgrove and Redditch. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge

GL Hearn Page 257 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	+++/	stations for electric vehicles from the outset.  Overall, mixed significant positive outcomes (related to the development model) and significant negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The extent to which sustainable transport minimise car use.  Likely Significant Outcomes  Development in this Area of Search would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. It would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car.  The broad location is situated in the vicinity of a main rail line linking Birmingham with Bromsgrove and Redditch, which could support growth, and there are stations in Bromsgrove and Redditch. The M5, M42, and M40 motorways pass through this area. These motorway routes provide good connectivity with the major employment areas and higher level settlements, including West Bromwich, Brimingham and Leamington Spa.  Overall, mixed significant positive and major negative outcomes have been assessed.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.

GL Hearn Page 258 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.  The extent to which sustainable transport helps reduce the use of the private car.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Development in the Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  There are statutory designated conservations assets within the broad area. These include a number of SSSI dispersed through this broad area, including: Hopwood and Dingle, Windmill Maps Wood, and Bannams Wood. The condition of the SSSI's in this broad area varies from unfavourable but recovering to favourable condition. There are some priority habitat areas identified for deciduous woodland. There are no SACs, SPAs or Ramsar sites within the area but there are several locally designated nature reserves, including Chaddesley Woods (around 3 miles to the North West of Bromsgrove.  The general area is characterised by grassland, arable land interspersed with woodland and suburban development. The area falls within the southern area of the Arden National Character Area (NCA) which comprises farmland and former wood-pasture lying. There is likely to be increased development on the NCA and greater pressure upon the existing infrastructure, particularly around Bromsgrove, Redditch and then slightly further away the major conurbation of West Bromwich and Birmingham and Leamington Spa to the South

GL Hearn Page 259 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				East. There are no national landscape designations within the area.  The area lies within the current Green Belt. The Green Belt study notes that the rail corridors between Birmingham and Bromsgrove and Birmingham and Redditch (shared until Barnt Green) contain a relatively high proportion of built development (such as the large village of Alvechurch) which limits the capacity to absorb this scale of development. In addition, parts of these corridor, particularly to the north around Barnt Green, are identified as making a Principal Contribution to the Green Belt purposes.  There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting. There are concentrations of listed buildings in Bromsgrove, to the South East of Bromsgrove, in Alvechurch and Redditch and some of the smaller settlements and others dispersed throughout this area. There are also a handful of scheduled monuments.  Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.
				Mitigation     Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.  Assumptions
				That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals would accord with the NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The specific location of development in the Area of Search in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?		Likely Significant Outcomes  The provision of development in the Area of Search is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of

GL Hearn Page 260 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/	residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  The Area of Search is located away from major employment areas around Birmingham Airport, NEC and Solihull geographically but is connected via the existing motorway network. There is also an existing rail line within the area which could be utilised with infrastructure investment.  There are considered to be a mix of major positive and significant negative outcomes
				against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++	Likely Significant Outcomes  Development within the Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support integral employment development as integral, thereby supporting lasting job opportunities and economic self-containment in the settlement.  The Area of Search is located in close proximity to the motorway network, enabling accessibility of major employment areas in the wider area such as West Bromwich and Birmingham, and along the M42 and M40 to Leamington Spa.

GL Hearn Page 261 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	+++	Likely Significant Outcomes  Development envisaged in the Area of Search would drive significant economic investment in the locality. The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and	Provide a range of opportunities for affordable housing across a range of tenures?		Likely Significant Outcomes  Development envisaged in the Area of search is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space. The quantum of development, and the concentration of development within

GL Hearn Page 262 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	affordability to meet local needs		+++	one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.
				Overall, major positive outcomes have been assessed for this objective.
				Mitigation  The interest in a first control to the
				The integration of infrastructure delivery tied to specific development phasing.
				Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 263 of 302

Table 24: North of Wolverhampton (Employment led)

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	The Area of Search model is likely to involve the use of extensive areas of green field land due to the land take required to support the development of the scale required. This is assessed as a major negative outcome. The area primarily contains ALC Grade 3, although there are some areas of Grade 2 and grade 4. It is likely to contain some higher quality agricultural land although further analysis will be required.  The Area of Search is likely to have capacity to ensure sustainable waste and water management including comprehensive schemes to harvest rainwater.  The development model is therefore considered to have mixed minor positive and major negative outcomes in relation to this objective.  Mitigation  Opportunities to re-use brownfield land should be maximised.  Assumptions  That development will ensure that opportunities are maximised for waste and water resources.  Uncertainties  There are uncertainties relating to the delivery of the development in relation to specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS?  Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Likely Significant Outcomes  The development may contribute to the delivery of co-ordinated onsite renewable and low carbon technologies e.g. solar, biomass and/or combined heat and power although there is some uncertainty dependent on the developments that come forward.  The Area of Search has an area of flood zones 2 and 3 around the River Penk, which affects part of the existing Balliol Business Park, and Moat Brook. The development of a strategic site is likely to be capable of adequately incorporating SuDS whilst development locations could be chosen that avoid areas of highest flood risk.  Development in this Area of Search has been assessed as being likely to have a major positive outcome against this objective.

GL Hearn Page 264 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid areas of highest Flood Risk.  Uncertainties  None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?	++/-	Development in this AoS is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The location of proposals in line with existing commuting/travel patterns (to existing areas of employment) is unlikely to drive changes in car use/travel behaviour so the development model is unlikely to present opportunities for innovative transport solutions.  The Area of Search is located close to the M54 and is on the main railway network with stations at Bilbrook and Codsall. Opportunities may exist to support sustainable transport solutions using these stations as hubs. The area is also located close to the i54 which is home to key employers in the region.  Overall, mixed major positive and minor negative outcomes have been assessed against this development model.  Mitigation  Masterplans/design briefs should support green infrastructure provision that best mitigates the effects of climate change.  Assumptions  None.  Uncertainties

GL Hearn Page 265 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				None.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/-	Likely Significant Outcomes  The Area of Search would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions which could be linked to existing infrastructure supporting the broad area.  The Area of Search is located close to the M54 and is on the main railway network with stations at Bilbrook and Codsall. Opportunities may exist to support sustainable transport solutions using these stations as hubs. The area is located close to the i54, as the complementary employment area supported by the Area of Search. I54 is home to key employers in the region, including JLR, and benefits from Enterprise Zone status.  Development here would complement the existing critical mass of employment in the area and support connectivity.  Overall, a mix of major positive and minor negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision.  Mitigation  Implementation of site specific measures to encourage car sharing.  Assumptions  None.  Uncertainties

GL Hearn Page 266 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  Development envisaged at this Area of Search is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  There a few designated conservation sites in the area. Big Hyde Rough SSSI (in 'favourable' condition) and Belvide Reservoir ('unfavourable declining' condition) are located around 4.5km and 6km to the North West of Codsall respectively and Donington and Albrighton Local Nature Reserve around 5.5km to the West of Codsall. There are other LNR's and European designated sites in the wider surrounding area including Mottey Meadows SAC (around 12km to the north of Codsall), Cannock Chase SAC (18km to the north east), Cannock Extension Canal SAC (around 15km to the east) and Fens Pools SAC (around 9km to the south east). There is one small area of Grade 3 agricultural land. These designations would need to be considered as part of any new development in this area.  These areas are in the Green Belt. The Green Belt study notes that this is a complex are defined by major road infrastructure (M54 and A449 and the Wolverhampton – Stafford railway to the east. Whilst having an overall limited likely significant strategic effect on the Green Belt in this location (the M54 acting as a generalised northern edge to the conurbation), there are potentially local separation issues in what is part of a complex urban area and transport corridor. In addition, should development extend north of the M54, to consolidate that already around Featherstone, for example, then role of the Gree

GL Hearn Page 267 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Shropshire, Cheshire and Staffordshire Plain NCA is an expanse of flat or gently undulating, lush, pastoral farmland.  There is a scattering of Listed Buildings in Codsall and Tettehhall and along the line of the Shropshire Union Canal and Scheduled Monuments in this area. Chillington Grade II* Registered Park and Garden is located around 1km to the north west of Codsall. Regard would have to eb had their setting. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.
				Overall, minor negative outcomes have been assessed against this location. The range of impacts are largely dependent on the exact locations chosen for development.  Mitigation  Specific proposals would mitigate impacts on these and support enhancement where possible.  Assumptions  That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?		The exact location of Employment Led development in relation to designated nature conservation sites and historic assets.  Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities

GL Hearn Page 268 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
			++/	to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and major negative outcomes against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++	Likely Significant Outcomes  The Employment led development model in this location would to help support economic growth and investment at the strategic scale (through housing provision in close proximity), enabling the delivery of significant and lasting investment in the West Midlands economy.  The Area of Search is specifically located close to the i54 which is home to key employers in the region, including JLR, and benefits from Enterprise Zone status. Development here would complement the existing critical mass of employment in the area. I54 also benefits from an existing junction onto the M54 which may help support economic development in this Area of Search.  Overall, significant positive outcomes are assessed against this objective.  Mitigation  None.  Assumptions  None.

GL Hearn Page 269 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of deprived areas?	++	Likely Significant Outcomes  This Area of Search is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of onsite medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within this location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).  The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.  Overall, the Area of Search is considered to have major positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing,  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Area of Search, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable	Provide a range of opportunities for		Likely Significant Outcomes

GL Hearn Page 270 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	housing of the right quantity, type, tenure and affordability to meet local needs	affordable housing across a range of tenures?	++	The Area of Search would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.

GL Hearn Page 271 of 302

## **APPENDIX E:** Development Model Appraisal

GL Hearn Page 272 of 302

Table 1: New Settlement

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The New Town/Settlement is likely to involve the use of extensive areas of green field land (even when developed around existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required  The New Town/Settlement is likely to have significant capacity to ensure sustainable waste and water management is incorporated including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The development model is therefore considered to have mixed minor positive outcomes and significant negative effects in relation to this objective.  Mitigation  Opportunities should be sought to maximise brownfield land when development around existing settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for reducing waste and maximising water resources.  Uncertainties  There are uncertainties relating to the delivery of the development model in relation to specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as		Likely Significant Outcomes  The opportunities for the inclusion of renewable energy technologies such as combined heat

GL Hearn Page 273 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
		renewable energy and SuDS?		and power are likely to be significant for the scale and concentration of development proposed in the New Town/Settlement.
		Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+++	The potential for of SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage.
				The scale of the New Town/Settlement model is also likely to ensure that specific development locations would avoid areas of highest flood risk and co-ordinated masterplans could ensure such areas are avoided where they exist within the development envelope. The potential for enhancement of flood protection schemes is also likely.
				The New Town/Settlement development model has been assessed as being likely to have a significant positive outcome against this objective.
				Mitigation
				Development should ensure that opportunities for SuDS are maximised.
				Assumptions
				That specific development schemes would avoid areas of highest Flood Risk.
				Uncertainties
				None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The New Town/Settlement development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.
			+++/	The development would support a level of self-containment and public transport solutions that would help mitigate an increase in private car based travel/commuting, thereby

GL Hearn Page 274 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				supporting/sustaining modal shifts in transportation. However, it is also recognised that the use of private vehicles would increase in line with the quantum of development thereby contributing to CO2 emissions; however, as it is anticipated that there will be a transition in car fuel sources to low carbon over the next 25 years (for example with the phasing out of new petrol and diesel cars in 2040), a New Settlement provides increased design opportunities to build recharge stations for electric vehicles from the outset.  Overall, mixed significant positive and major negative outcomes have been assessed against this objective.  Mitigation  Masterplans/design briefs should support a comprehensive approach to green infrastructure provision, integrated sustainable public transport and for low carbon transport/recharging networks.  Assumptions  Assumptions  Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  The extent to which sustainable transport minimise car use.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	+++/	Likely Significant Outcomes  New Towns/Settlements would provide integrated and comprehensive development schemes with delivery of associated facilities, services and infrastructure. They would also have the potential to support a range of employment types. This could support self-containment and reduce out commuting. However, it is inevitable that there will be out commuting to other employment areas which will necessitate road travel via the private car. The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of growth would also provide critical mass to support electricity charging sites, enable sustainable public transport solutions, including through measures such as urban trams, and promote broader interconnectivity using the rail network (in locations close to rail stations). However, it is recognised that CO2 emissions from

GL Hearn Page 275 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				transport would increase in line with the quantum of growth.  Overall, mixed significant positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the necessary transport infrastructure to support the scale of development envisaged.  Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable public transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged is delivered in line with expectations.  The extent to which sustainable transport helps reduce the use of the private car.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	++/	Development in line with the New Town/Settlement model is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption. The significance of the negative effects on biodiversity will depend on whether national or internationally designated conservation features would be affected by the proposals.  Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the New Town/Settlement model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.

GL Hearn Page 276 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  Overall, there are considered to be a mix of major positive and major negative outcomes although some uncertainty exist in relation to these outcomes.  Mitigation  • Specific proposals to bring forward New Towns/Settlements would mitigate impacts on designated assets and support enhancement where possible.  Assumptions  • That development would comply with requirements for HRA and appropriate assessment.  • That specific development proposals for development of the New Town/Settlement would accord with the NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  • The location of New Towns/Settlements in relation to designated nature conservation sites an historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/	Likely Significant Outcomes  The provision of development at the scale of a New Town/Settlement is likely to support opportunities to manage impacts on air quality through the implementation of sustainable transport measures, including public transport provision, and through the specific design of road layouts to limit impacts from vehicles. However, there would be a significant increase of residential properties in the location, many of whom would use private cars to travel.  A comprehensive green infrastructure network could also help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.

GL Hearn Page 277 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+++	Likely Significant Outcomes  The development of New Towns/Settlements would drive significant economic investment in the localities where they are developed and across the HMA.  The development of housing at the quantum envisaged and the accompanying infrastructure required would support significant number of jobs during construction over a long period of time. The extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support employment development as integral to the New Town/ Settlement, thereby supporting lasting job opportunities and economic self-containment in the settlement.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse	Provide extensive and varied open space as part of a well-designed and built environment?		Likely Significant Outcomes  The New Town/Settlement model is considered likely to enable delivery of the full range of services and facilities including retail, health, leisure, schools, community and open space.

GL Hearn Page 278 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	environments that promote a sense of place	Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	+++	The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support access through sustainable public and other transport modes (through walking and cycling). The development model would support opportunities for the delivery of employment land supporting access to employment locally.  The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision and opportunities for sporting and recreational spaces. Green infrastructure can also help shape a sense of place.  However, there may be difficulties in ensuring delivery of infrastructure in line with housing development rates, at this quantum of development, which could mean that infrastructure delivery is not aligned with housing development phasing or not delivered at all. Therefore, there is some uncertainty. However, mitigation through the application of planning obligations may address some of these concerns.  Overall, the New Town/Settlement model is considered to have significant positive outcomes for this objective.  Mitigation  The integration of infrastructure delivery tied to specific development phasing,  Assumptions  That specific design will seek opportunities to design out crime.  Uncertainties  Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the New Town/Settlement, and the lead in times and build out rates for the scale of provision envisaged.
Housing	Provide decent and affordable housing of the	Provide a range of opportunities for affordable housing across		Likely Significant Outcomes  The New Town/Settlement development model would support delivery of a range of housing

GL Hearn Page 279 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
	right quantity, type, tenure and affordability to meet local needs	a range of tenures?	+++	types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the development model would make a significant contribution to meeting the housing needs of the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location, and the delivery rates associated with bringing forward in such large development areas. A coordinated approach would be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  The delivery of the full quantum of housing.

GL Hearn Page 280 of 302

Table 2: Urban Extension

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The Urban Extension development model is likely to involve the use of extensive areas of green field land (even when developed around existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from the development model.  The Urban Extension development model is likely to ensure capacity at these locations to deliver sustainable waste and water management including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The Urban Extension model is therefore considered to have mixed minor positive outcomes and major negative outcomes in relation to this objective.  Mitigation  Urban Extensions should maximise the potential for brownfield land on the edge of settlements.  Opportunities should be sought to minimise the creation of construction waste through the use of design, materials selection and onsite and offsite reuse.  Assumptions  That development scale will ensure that opportunities are maximised for waste reduction and water resource management.  Uncertainties  There are uncertainties relating to the delivery of the development in relation to specific localities.

GL Hearn Page 281 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	++	Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development proposed in the Urban Extension at the higher end of the quantum range.  The potential for SuDS is also likely be significant. The scale of the new development proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  The Urban Extension development model has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  • Development should ensure that opportunities for SuDS are maximised.  Assumptions  • That development would avoid areas of highest Flood Risk.  Uncertainties  • None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network. Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.  The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the

GL Hearn Page 282 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
			++/-	opportunities for public transport solutions will be more limited.  Overall, mixed major positive and minor negative outcomes have been assessed against this objective.  Mitigation  • Masterplans/design briefs should support comprehensive approach to green infrastructure provision, and where the scale permits, integrated sustainable transport measures.  Assumptions  • Assumed that comprehensive green infrastructure will be delivered based on Garden Town principles.  Uncertainties  • The quantum of development.
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/	Likely Significant Outcomes  Urban Extensions would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities.  The development model would also support a level of employment development. This could support some self-containment although there would be out commuting to access higher level service provision and employment areas. There is inevitably an increase in emissions related to this increase in transport.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.  Overall, a mix of major positive and major negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision.

GL Hearn Page 283 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				Mitigation  Masterplans/design briefs should support a comprehensive approach to the development of integrated sustainable transport measures.  Assumptions  Comprehensive public transport provision informs the strategic approach to the design of a scheme and is delivered in line with the quantum of growth.  Uncertainties  The delivery of infrastructure to support the quantum of development envisaged.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	+/-	Likely Significant Outcomes  Development in line with the Urban Extension model is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the Urban Extension model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.  The impact on historic assets is largely related the location of development and the historic assets that may be affected. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.  Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the location of the

GL Hearn Page 284 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Pollution	Limit potential for	Result in no additional		<ul> <li>development.</li> <li>Mitigation</li> <li>Specific proposals to bring forward Urban Extensions would mitigate impacts on designated assets and support enhancement where possible.</li> <li>Assumptions</li> <li>That development would comply with requirements for HRA and appropriate assessment.</li> <li>That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.</li> <li>Uncertainties</li> <li>The location of development in relation to designated nature conservation sites and historic assets.</li> <li>Likely Significant Outcomes</li> </ul>
	additional pollution of air, soil and water	pollution load?  Contribute towards a reduction in pollutant loading?	++/	The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.  There are considered to be a mix of major positive and significant negative outcomes against this objective.  Mitigation  None.  Assumptions

GL Hearn Page 285 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary  • None.
				Uncertainties
				Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	++	Likely Significant Outcomes  The development of Urban Extensions would drive significant economic investment in the localities where they are developed and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.  The development model would also support some employment development as part of the extension, thereby supporting some lasting job opportunities locally. However, this would not support economic self-containment in the settlement with residents likely to commute elsewhere for higher level services and employment.  Overall, major positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human health and wellbeing?  Promote regeneration of	++	Likely Significant Outcomes  The Urban Extension model is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on site medical facilities is largely dependent on the quantum of development with offsite contributions likely at the lower end of the quantum range and medical practice at the higher end.  The quantum of development, and the concentration of development within one location,

GL Hearn Page 286 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
		deprived areas?		would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).
				The development model would support opportunities for the delivery of employment land supporting access to employment locally.
				The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, the Urban Extension model is considered to have major positive outcomes for this objective.
				Mitigation
				The integration of infrastructure delivery tied to specific development phasing,
				Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Urban Extension, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 287 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	++	Likely Significant Outcomes  The Urban Extension development model would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 288 of 302

Table 3: Employment Led

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/	Likely Significant Outcomes  The Employment Led development model is likely to involve the use of extensive areas of green field land (even when developed around existing settlements where some brownfield land may be utilised) due to the land take required to support the development of the scale required. This is assessed as a major negative outcome from the development model.  The Employment Led model is likely to have capacity to ensure sustainable waste and water management including comprehensive schemes to harvest rainwater.  Although the model would provide opportunities for the integration of effective water and waste efficiency measures when developed, the construction and subsequent occupation of the development would mean that the site was a net producer of construction and household waste.  The development model is therefore considered to have mixed minor positive and major negative outcomes in relation to this objective.  Mitigation  Opportunities to re-use brownfield land should be maximised.  Assumptions  That development will ensure that opportunities are maximised for waste and water resources.  Uncertainties  There are uncertainties relating to the delivery of the development in relation to specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of		Likely Significant Outcomes  The opportunities for the inclusion of renewable and low carbon energy technologies such as Combined Heat and Power/District Heating are likely to be considerable for the quantum of development proposed in the Urban Extension at the higher end of the quantum range.  The potential for SuDS is also likely be significant. The scale of the new development

GL Hearn Page 289 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
		flood risk and, where possible, contribute towards reducing flood risk?	++	proposed, the investment necessitated and new design measures means that there is an increased opportunity for the provision of an integrated, comprehensive green infrastructure network that will include SuDS. This could have a positive effect on this objective by increasing infiltration and storm water retention times by providing space for flood waters to flow through and additional areas for temporary flood water storage. The potential for enhancement of flood protection schemes are also likely.  The Urban Extension development model has been assessed as being likely to have a major positive outcome against this objective.  Mitigation  Development should ensure that opportunities for SuDS are maximised.  Assumptions  That development would avoid areas of highest Flood Risk.  Uncertainties
				None.
	Adapt to the effects of climate change	Be an exemplar for a multifunctional response to climate change?		Likely Significant Outcomes  The development model is assumed to be based on Garden Town principles and is likely to lead to the incorporation of a comprehensive and integrated green infrastructure network.  Green infrastructure helps to mitigate the effects of climate change by providing networks for habitat creation and movement, areas for flood storage, and opportunities for walking/cycling when integrated with sustainable transport solutions.
			++/-	The development would support a level of self-containment and public transport solutions that would help mitigate the increase in private car based travel, thereby supporting modal shifts in transportation. However, particularly at the lower quantum of growth the opportunities for public transport solutions will be more limited. The location of proposals in line with existing commuting/travel patterns (associated with major employment locations) is unlikely to drive changes in car use/travel behaviour so the development model is unlikely to present opportunities for innovative transport solutions.  Overall, mixed major positive and minor negative outcomes have been assessed against this

GL Hearn Page 290 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				<ul> <li>objective.</li> <li>Mitigation</li> <li>Masterplans/design briefs should support green infrastructure provision that best mitigates the effects of climate change.</li> <li>Assumptions</li> <li>None.</li> <li>Uncertainties</li> <li>None.</li> </ul>
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	++/-	Likely Significant Outcomes  Employment Led developments would provide integrated and comprehensive development schemes with delivery of a range of associated facilities, services and infrastructure. However, the provision is largely dependent on the quantum range with those at higher level considered to provide the best opportunity for a fuller range of services and facilities.  The development model would also support a level of employment development and be close to existing major areas of employment. This could support self-containment within the vicinity although there would be out commuting to access higher level service provision and other employment areas. There is inevitably an increase in emissions related to this increase in transport.  The comprehensive development would enable delivery of cycleways and footways to help connect and promote accessibility to facilities, services and local employment by means other than the private car. The quantum of development at the higher end of the range would also provide critical mass to enable sustainable public transport solutions.  Overall, a mix of major positive and minor negative outcomes have been assessed, although there is some uncertainty related to the delivery of the specific quantum of growth and the opportunities for public transport provision.

GL Hearn Page 291 of 302

		Implementation of site specific measures to encourage car sharing.
		Assumptions  None.  Uncertainties
		The extent to which public transport provision would service these areas.
Protect, enhance and restore the special qualities of natural and cultural resources?  y and ty	+/-	Development in line with the Employment Led model is likely to provide opportunities for biodiversity improvements, as it is assumed that the proposed development will be based on the Garden Town principles which would ensure that green infrastructure is planned for and incorporated in a comprehensive manner across the development. This has the potential to support new habitat creation and enhance any retained habitat. However, it is also anticipated that there will be negative impacts on biodiversity as a result of the scale of development, the land take required and associated effects arising from disturbance and disruption.  Although in general terms the scale of development is such that there will inevitably be impacts on the landscape, the Employment Led model provides significant opportunities to mitigate effects through comprehensive and co-ordinated design solutions.  The impact on historic assets is largely related to the location of development and the historic assets that may be affected. There is potential for development schemes to incorporate design solutions to mitigate effects on some assets and potentially enhance their setting.  At the scale of growth envisaged there may be opportunities to avoid the most sensitive areas.  Overall, there are considered to be a mix of minor positive outcomes with minor negative outcomes, although there is some residual uncertainty due to the location of the development.  Mitigation  • Specific proposals to bring forward Employment Led development would mitigate
	restore the special qualities of natural and cultural resources?	restore the special qualities of natural and cultural resources?  y and ty

GL Hearn Page 292 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				impacts on designated assets and support enhancement where possible.
				Assumptions
				That development would comply with requirements for HRA and appropriate assessment.
				That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.
				Uncertainties
				The location of development in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	++/-	Likely Significant Outcomes  The provision of development at the scale envisaged is likely to support opportunities to manage impacts on air quality through the design of roads to limit impacts from vehicles. There are also likely to be opportunities to ensure water management and storage. However, there will be an increase in emissions from private cars in line with the quantum of growth. The development will also lead to the loss of soil quality in line with the loss of greenfield land.  However, there may be opportunities to support investment in public transport provision in line with the sub-regional commuting patterns that the existing employment sites would be a part of.  A comprehensive green infrastructure network could help minimise and mitigate the effects of pollution at a strategic and local scale. There are also likely to be opportunities to ensure water management and storage onsite to reduce the potential for pollution.
			There are considered to be a mix of major positive and significant negative outcomes against this objective.	
				Mitigation
				<ul> <li>Transport solutions should maximise existing provision of public transport as part of the sub-regional commuting patterns.</li> </ul>
				Assumptions

GL Hearn Page 293 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				Employers at the sites would undertake business in accordance with pollution
				standards.
				Uncertainties
				Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong	Provide a significant		Likely Significant Outcomes
	and sustainable economy which invests in skills development	source of employment which contributes to a high degree of self- containment?		Employment Led development would drive significant economic investment in the localities where they are developed and at the higher range across the HMA. The development of housing at the quantum envisaged and the accompanying infrastructure would support a significant number of jobs during construction. However, the extent to which these jobs are filled locally would be dependent on the specific approach of developers at the time.
			+++	The development model would also support the existing strategic employment areas, thereby supporting the filling some lasting job opportunities locally. This would support self-containment within the vicinity of the strategic employment areas where they are brought forward.
				Overall, major positive outcomes have been assessed against this objective.
				Mitigation
				None.
				Assumptions
				<ul> <li>The locations would support a range of employment types, some of which would be key employers supporting a range of complementary employment opportunities, through (for example) the supply chain.</li> </ul>
				Uncertainties
				None.
Communities,	Encourage the	Provide extensive and		Likely Significant Outcomes
Healthy Lifestyles and Equality	creation of high quality and diverse environments that promote a sense	varied open space as part of a well-designed and built environment?  Ensure the protection and enhancement of human		The Employment Led model is considered likely to enable delivery of a range of services and facilities including retail, leisure, schools and open space. The delivery of on site medical facilities is largely dependent on the quantum of development with offsite

GL Hearn Page 294 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
	of place	health and wellbeing?  Promote regeneration of	++	contributions likely at the lower end of the quantum range and medical practice at the higher end.
		deprived areas?		The quantum of development, and the concentration of development within one location, would help to enable the co-ordinated and comprehensive planning of services and facilities. This will ensure that delivery would meet the needs of the communities and be located in optimal locations to support sustainable access through sustainable transport (through walking and cycling).
				The development model would support opportunities to access to existing strategic employment land areas with a critical mass of development.
				The development model would provide significant opportunities for exemplar design to support creation of a sense of place and support healthy lifestyles. The development model would also afford opportunities for delivery of a comprehensive green infrastructure network with integrated open space provision, helping to engender a sense of place. At the higher range, the inclusion of sporting facilities would also be supported in the development model.
				There may be some uncertainties related to the delivery of infrastructure in line with the phasing of housing and quantum of development.
				Overall, the Employment Led model is considered to have major positive outcomes for this objective.
				Mitigation
				The integration of infrastructure delivery tied to specific development phasing,
				Assumptions
				That specific design will seek opportunities to design out crime.
				Uncertainties
				Delivery of facilities and services in line with the phased delivery of housing, particularly as the result of the scale of housing provision within the Employment Led modeal, and the lead in times and build out rates for the scale of provision envisaged.

GL Hearn Page 295 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	++	Likely Significant Outcomes  The Employment Led development model would support delivery of a range of housing types and tenures, including the provision of affordable housing. Provision of the quantum of housing envisaged in the model would make a major contribution to meeting the housing needs of a LPA within the HMA. The development model would also support the delivery of facilities, services and employment to support the needs of future residents.  There is some uncertainty related to focusing the quantum of housing in to one location (particularly at the higher range), and the delivery rates associated with bringing forward large development areas. A co-ordinated approach would therefore be required to ensure delivery.  Overall, significant positive outcomes have been assessed against this objective.  Mitigation  None.  Assumptions  None.  Uncertainties  None.

GL Hearn Page 296 of 302

**Table 4: Proportionate Dispersal** 

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Use natural resources efficiently	Use natural resources efficiently	Minimise use of greenfield land, limit water consumption and the production of waste?	+/-	Likely Significant Outcomes  The Proportionate Dispersal development model will require greenfield land although opportunities could be sought to make use of brownfield land on the edge of settlements (dependent on location). The amount of green field land required will increase in line with the quantum of growth identified.  The development would support opportunities for reducing water and waste when occupied by residents.  The development model is therefore considered to have mixed minor positive and minor negative outcomes in relation to this objective.  Mitigation  Maximise opportunities to limit water and waste production through design.  Assumptions  That development maximises water resources and reduces waste.  Uncertainties  There are uncertainties relating to the delivery of the development in specific localities.
Climate Change	Contribute to climate change mitigation	Make a substantial contribution through measures such as renewable energy and SuDS? Help to avoid locating development in areas of flood risk and, where possible, contribute towards reducing flood risk?	+	Likely Significant Outcomes  The development may contribute to the delivery of co-ordinated onsite renewable and low carbon technologies although there is some uncertainty dependent on the quantum range. The higher quantum of the growth in the range the more likely that delivery would be sought. Concentrations of development at this quantum in specific locations would encourage the development of development scale energy solutions such as Combined Heat and Power/District Heating.  There is considered to be sufficient opportunities potential for the implementation of SuDS.  The quantum of residential envisaged is also likely to ensure that specific development locations could be chosen that avoid areas of flood risk. The potential for enhancement of flood protection schemes are also likely although would be less at the lower range of

GL Hearn Page 297 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				development envisaged.
				The development model has been assessed as being likely to have a minor positive outcome against this objective.
				Mitigation
				Development should ensure that opportunities for SuDS are maximised.
				Assumptions
				That development would avoid areas of highest Flood Risk.
				Uncertainties
				None.
	Adapt to the	ects of climate multifunctional response		Likely Significant Outcomes
	change			The Proportionate Dispersal development model would lead to development of a green infrastructure network however the opportunities would not be maximised at the quantum of growth identified, particularly at the lower end of the range.
				The quantum of growth envisaged, its dispersal and therefore a lack of elf-containment with regards to access to services, facilities and employment, and the location on the edge of settlements would also contribute to existing patterns of transportation and not provide opportunities for innovative public transport solutions.
			-	Overall, minor negative outcomes have been assessed against this development model.
			Mitigation	
				<ul> <li>Masterplans/design briefs should support green infrastructure provision that best mitigates the effects of climate change.</li> </ul>
				Assumptions
				None.
				Uncertainties
				None.

GL Hearn Page 298 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
Transport, connectivity and CO2 Emissions	Promote energy efficiency and use of sustainable modes of transport and energy efficiency	Create a significant and enduring shift in the travel mode and pattern of residents, as part of a wider, design-led reduction in CO2 emissions?  Reduce the need for use of unsustainable forms of travel?	-1?	Proportionate Dispersal is unlikely to lead to a modal shift in the travel patterns of future residents and is more likely to exacerbate existing patterns of private car based travel, and out commuting, to meet everyday service provision and employment needs.  The location on the edge of existing settlements is considered likely to add pressure to existing transport infrastructure provision. Sustainable public transport solutions are not likely due to the lack of critical mass of development.  Overall, minor negative outcomes have been assessed this objective although the extent of the impacts are dependent on the quantum of development within the range.  Mitigation  None.  Assumptions  The exact location of development and existing transport infrastructure.
Historic Environment, Landscape, Biodiversity and Geodiversity	Protect, enhance and restore the quality of landscape, townscape, biodiversity and geodiversity	Protect, enhance and restore the special qualities of natural and cultural resources?	0/?	Likely Significant Outcomes  The quantum of development envisaged would help to support the selection of less sensitive locations that avoid/have the least impact on historic assets, areas of landscape value and designated nature conversation sites. However, the scale of development is such that comprehensive schemes to enhance these assets is unlikely.  Overall, neutral effects have been assessed in relation to this objective although some uncertainty remains related to the specific locations of development chosen.  Mitigation  Specific proposals would mitigate impacts on these assets and support enhancement where possible.  Assumptions

GL Hearn Page 299 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				That development would comply with requirements for HRA and appropriate assessment.  That specific development proposals for development would accord with NPPF approach to protection and enhancement of historic and natural environment.  Uncertainties  The location of developments in relation to designated nature conservation sites and historic assets.
Pollution	Limit potential for additional pollution of air, soil and water	Result in no additional pollution load? Contribute towards a reduction in pollutant loading?	-/?	Likely Significant Outcomes  The provision of development at the scale of the Proportionate Dispersal model is not considered likely to support the delivery of comprehensive and sustainable public transport solutions, due to there not being a critical mass of development.  Development would also not support self-containment leading to an increase in emissions to the air from commuting to areas of employment and major service provision.  Overall, minor negative outcomes have been assessed for this objective although the extent is uncertain.  Mitigation  None.  Assumptions  None.  Uncertainties  Specific design measures incorporated to manage air quality impacts from road travel.
Economic Growth	Promote a strong and sustainable economy which invests in skills development	Provide a significant source of employment which contributes to a high degree of self-containment?	+	Likely Significant Outcomes  The development model would support employment growth, particularly through the construction phase. The extent to which the jobs would be filled locally would be dependent on employer practices at the time of construction.  Although there may be some opportunities for ongoing employment (within a local centre for example) the development model would not support employment land development.

GL Hearn Page 300 of 302

SEA Theme	Objective	Decision Making Criteria  To what extent is the Development Model likely to:	AoS Score	Commentary
				Residents would therefore be required to commute to access these opportunities.  Overall, therefore, minor positive outcomes have been assessed for this objective, although primarily only during the construction phase.  Mitigation  None.  Assumptions  None.  Uncertainties  None.
Communities, Healthy Lifestyles and Equality	Encourage the creation of high quality and diverse environments that promote a sense of place	Provide extensive and varied open space as part of a well-designed and built environment? Ensure the protection and enhancement of human health and wellbeing? Promote regeneration of deprived areas?	+/-	Likely Significant Outcomes  The development model is likely to enable development that provides contributions for delivery of services and facilities (such as medical practices and school places) within the existing settlements, on the edge of which they would be located, rather than include delivery onsite. This provides little opportunities for integration of housing and services. Future occupants will also have to commute out to access employment opportunities.  There are likely to be few opportunities to deliver comprehensive green infrastructure provision, particularly at the lower end of the quantum of development envisaged in the development model. The opportunities to reinforce a sense of place are therefore limited. However, the development model would likely include provision of a local centre(s) to meet convenience shopping needs and the delivery of open space in line with the specific quantum of growth and any specific policy requirements. Furthermore, the locational principles of the development model (development on the edge of existing settlements) may also support opportunities for regeneration of existing areas, thereby supporting the health and wellbeing of existing communities.  The development model is therefore assessed as having a mix of minor positive and minor negative outcomes on this objective.  Mitigation  Development should be located close to existing service provision.

GL Hearn Page 301 of 302

SEA Theme	Objective	Decision Making Criteria To what extent is the Development Model likely to:	AoS Score	Commentary
				Developer contributions should support services and facilities in reasonable proximity to the new development
				Assumptions  Open space would be provided in line with the quantum of growth.  Uncertainties  None.
Housing	Provide decent and affordable housing of the right quantity, type, tenure and affordability to meet local needs	Provide a range of opportunities for affordable housing across a range of tenures?	+	Likely Significant Outcomes  The Proportionate Dispersal model would support delivery of a range of housing types and tenures including affordable housing. However, there is likely to be little opportunity to deliver an exemplar model of housing delivery at the scale envisaged.  However, due to the scale of development envisaged, the delivery rates are likely to be quicker than for development models with a larger quantum of development; thereby helping to meet the housing needs of the HMA earlier.  The model is therefore assessed as having a minor positive outcome on this SA Objective.  Mitigation  None.  Assumptions  None.  Uncertainties

GL Hearn Page 302 of 302